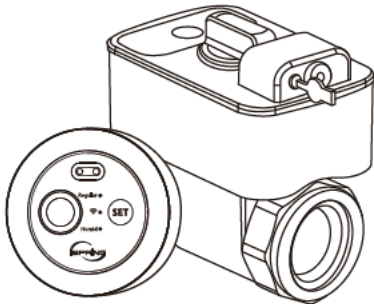


WHOLE HOUSE

iSpring Whole House Electric Ball Valve with Wireless Leak Sensor



Model: LS43WL

Installation Instructions & User Manual

Ver. 05/2025



Any questions?
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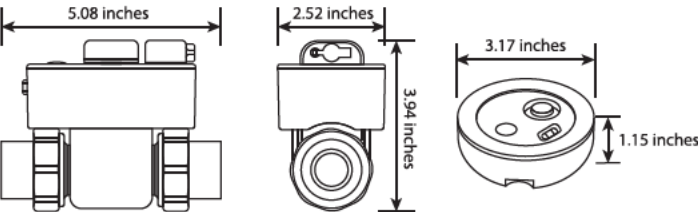
3. Product Overview

Technical Specifications
Electric Ball Valve

Model	ABVLS43WL
Operating Pressure	14.5–108.8 psi
Operating Temperature	34–122°F
Operating Voltage	AC 100–240 V 50/60 Hz, DC 5 V/1 A
Connection Size	3/4" FNPT, 1" MNPT
Internal Battery	Rechargeable 3.7 V Lithium Battery

Wireless Leak Sensor

Model	ASLS43WL
Battery	2 x AAA Batteries
Wireless Frequency	433 MHz
Operating Temperature	34–122°F
Waterproof Rating	IP67
Compatible Water Temperature	41–100°F
Operating Humidity	≤90%



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Since 2005, iSpring has been committed to delivering safe and clean water solutions to families and businesses worldwide. We provide a wide range of residential and commercial water filtration systems designed to purify your water, ensuring that you and your family enjoy pure, healthy, and great-tasting water every day.

At iSpring, we strive to develop products to the highest standards and aim to make excellent drinking water accessible for all households. With affordable pricing, reliable quality, prompt delivery, and top-notch customer service, we hope to assist in bringing you great water for years to come.

4. Important User Information

The user must adhere to the installation specifications described in this Product Installation and Operation Manual. iSpring is not responsible for damage, loss, or injury resulting from neglect, improper maintenance, or unauthorized modification of products.

- Handle with care during transport to prevent shock.
- Store in dry, non-corrosive, non-hazardous environments.
- Children must not operate, clean, or maintain this device without direct adult supervision.

For the Main Valve

- Use with municipal water only.
- Storage conditions: <80% humidity, 41–131°F, no direct sunlight or magnetic exposure.
- Do not immerse or expose to extreme heat/freezing.
- Use only with the provided power adapter.
- Not intended for industrial use.
- Avoid modification or disassembly.
- Never touch the cables with wet hands.
- Store products at least 12 inches off the ground, 3 feet from walls, and 6.5 feet from heating equipment.

For Wireless Leak Sensor

- Do not place on metal surfaces.
- Keep dry when not detecting leaks.
- Use only AAA batteries.
- Replace batteries every 12 months or when low.
- If battery contacts are damaged or missing, stop using the device immediately.
- If the battery fluid leaks and comes into contact with your skin or eyes, rinse immediately and seek medical help.
- Do not immerse the wireless leak sensor in water. If cleaning is needed, wipe only the outer shell.

1. Product Features

The iSpring LS43WL Electric Ball Valve is a smart water control device that automatically detects leaks. It is compatible with wired and wireless leak detection, offers manual override, and has dual power support.

- Operates using a built-in rechargeable lithium battery or USB power. A full charge lasts up to 6 months under regular use.
- Includes a wired leak sensor. When water contacts the probe, the valve shuts automatically and an alarm sounds.
- Compatible with up to 8 wireless leak sensors (433 MHz). The valve automatically closes when any paired sensor detects a leak.
- The valve can be manually opened or closed using the knob during power loss or emergencies.

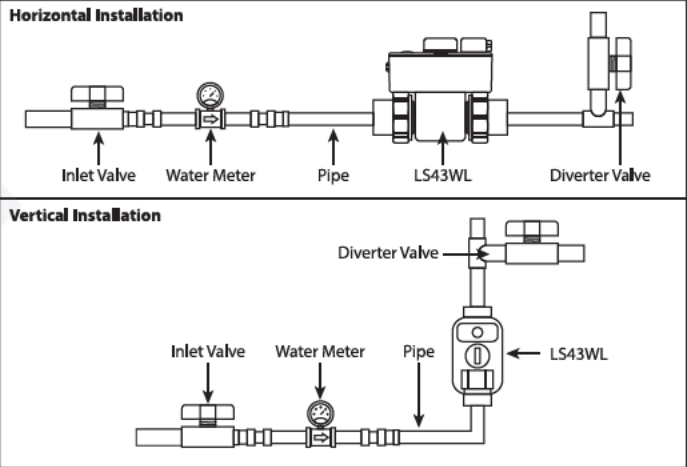
2. List of Components

- Electric Ball Valve Unit x1
- Type-C Charging Cable x1
- Pipe Washer x2
- Wireless Leak Sensor x1
- Threaded Connectors: 3/4" FNPT and 1" MNPT x2 each
- Leak Detection Cable x1
- User Manual x1

- Do not expose the sensor to strong magnetic fields, corrosive gases, or extreme temperatures, as these may cause malfunction.

5. Installation Instructions

Installation Method



• **Location:** Install the device on the main water inlet. Avoid outdoor or high-humidity environments (>90%). Keep away from sunlight and corrosive materials.

• **Pipe Compatibility:** Compatible with copper and plastic pipes.

• **Pipe Installation:**

- Use the provided 3/4" and 1" threaded connectors.
- Wrap PTFE tape around the male threads.
- Thread the connectors into the valve's inlet and outlet ports.
- Tighten securely using a wrench.

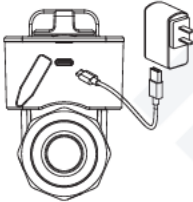
• **Power Setup:**

- Charge the electric ball valve fully using the included USB Type-C cable and adapter.
- LED charging indicator flashes during charging; remains solid when fully charged.

6. Operation Instructions

6.1 First-Time Use

- Fully charge the electric ball valve before first use.
- After power-on, the system will perform a self-test: the valve will close and reopen automatically.



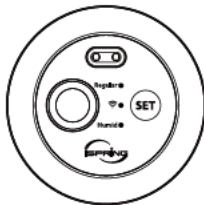
Function	Action/Input	Indicator Light
Valve Open	Press the valve button once	"ON" light flashes, solid when the process is completed
Valve Close	Press the valve button once	"OFF" light flashes, solid when the process is completed

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- Place the water sensor flat in areas where leaks may occur.
- Do not place it on metal surfaces, as this may affect proper operation.

6.7 Wireless Leak Sensor Pairing

- Once the batteries are installed, the "Wi-Fi" light will flash. Press the "SET" button to enter pairing mode. If the valve times out, reconnect the power adapter to enter pairing mode.
- Press and hold the "SET" button to pair a device. A beep confirms pairing.
- Once paired, the valve will respond to wireless leaks or low battery signals.
- The sensor enters sleep mode once the device is paired. Press "SET" to wake up the device.



Note: You can pair up to 8 devices. If more devices are paired, the first connected device will be unpaired.

7. Indicator Light & Alerts

Alarm	Trigger	Indicator	Action / Reset
Valve Close Fault	Valve fails to close	"OFF" light blinks and beeps	Press the valve button (3 sec) to retry/clear.
Valve Open Fault	Valve fails to open	"ON" light blinks and beeps	Press the valve button (3 sec) to retry/clear.
Electric Ball Valve Low Battery	Electric Ball Valve Battery low	"B": light blinks, valve closes, and beeps. If the user opens the valve without resetting, the valve will close after 48 hours	Recharge the battery. Valve will auto-close after 48 hours if not reset.

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Function	Action/Input	Indicator Light
Charging	Connect to Type-C power	"B": light steady, "B": light flashes
Fully Charged	Battery full	"B": light steady
Low Battery	Battery low	"B": light flashes

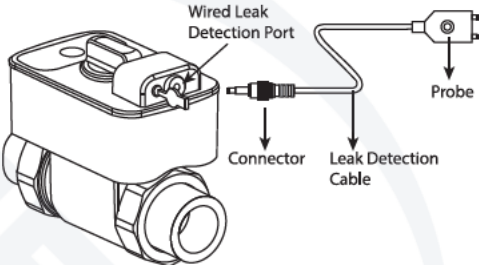
6.2 Manual Valve Control

- Press the valve button once to switch the valve state.
- Alternatively, use the manual knob to open/close the valve in case of power loss.
- To prevent the valve from seizing, it will automatically close and reopen once inactive for 15 days.

Note: When manually opening the valve, press valve on/off once to update the valve status. Do not over-turn the manual knob to prevent damage.



6.3 Leak Detection with Wired Probe



- Insert the leak detection cable into the side probe port.
- Place the probe under potential leak sources (e.g., under washing machines).
- If the probe detects water, the system will alarm and automatically close the valve.

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Alarm	Trigger	Indicator	Action / Reset
Wired Leak Detected	Water touches the wired probe	"LEAK": light on, valve closes and beeps. If the reset is attempted while water is still detected, the leak light blinks for 24 hours and then turns solid on, valve closes again.	Dry probe or unplug the device and press the valve button (3 sec) to reset.
Wireless Leak Detected	Wireless leak sensor detects a leak	Regular/Humid light flashes on the sensor depending on the setting. "Wi-Fi" light flashes and "LEAK" light is solid. Valve closes and beeps.	Press the valve button (3 sec) to reset the sensor and open the valve.
Wireless Low Battery	Sensor battery low	Regular/Humid light blinks/beeps, "Wi-Fi" light flashes. Valve closes and beeps.	Replace the sensor batteries. Press and hold the valve button for (3 sec) to reset. The valve will ignore further wireless low battery alerts for 24 hours or until the power adapter is reconnected.

8. Maintenance Tips

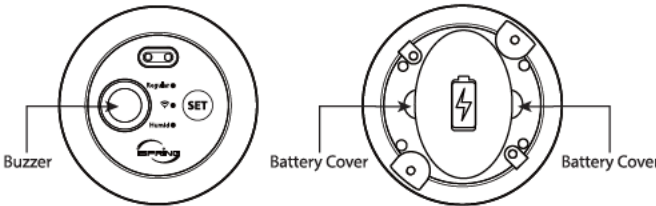
- Clean exterior with a damp cloth
- Test valve and leak detection monthly
- Replace wired/wireless probes if damaged or unresponsive

9. Troubleshooting

Issue	Possible Cause	Solution
Valve not responding	Battery depleted	Recharge the device fully
Leak not detected	Probe not connected/positioned	Check the connection and placement
Frequent buzzer alarms	Leak present or battery low	Inspect the probe and charge the device
Manual knob stiff or stuck	Limescale or blockage	Clean the valve area and retry

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6.4 Wireless Leak Sensor Installation



- Use a screwdriver to open the battery cover at the bottom.
- Insert two new AAA batteries.
- Close the cover securely.

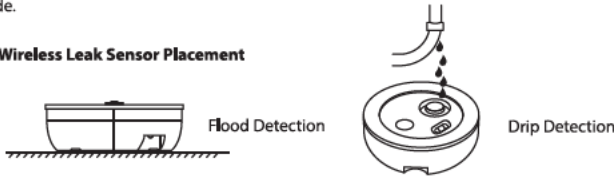
6.5 Wireless Leak Sensor Mode Settings

The wireless leak sensor supports two detection modes:

- **Regular Mode** — For dry areas like living rooms, closets, or under appliances. Triggers a leak alert when water touches the bottom sensor.
- **Humid Mode** — For moisture-prone areas like bathrooms, basements, or near drains. Only triggers an alert when water reaches the top sensor, to prevent false alarms from humidity.

Once the batteries are inserted, press the "SET" button to choose between Regular and Humid mode.

6.6 Wireless Leak Sensor Placement



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