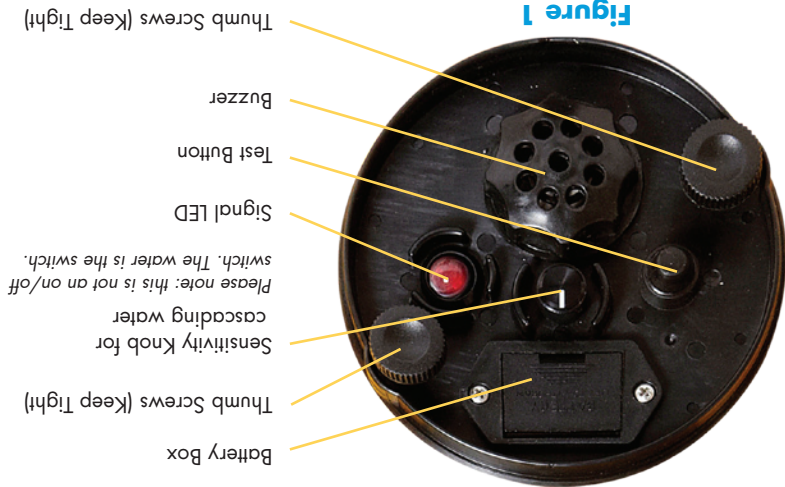


IMPORTANT: ENSURE THAT THE PANEL RETAINING THUMB SCREWS (NUTS) ARE TIGHT BEFORE USE.

Figure 1
1405 WLM-EP



WLM Electronic Panel

Item
WLM Electronic Panel
Thumb screws Set (2)



Figure 2
To test entire system: **Make sure sensitivity dial is turned fully clockwise.** For the Water Tape, hold the center pin on the probe against the stud on the back of the axle; touch the probe body against the screw on the frame at the same time. For the Skinny Dipper, touch the last probe weight and the probe body with metal material (wire) at the same time. The buzzer will sound if the system is okay.

Part Numbers
1405 WLM-EP
3250 TScrewsx2

Figure 3
Unique hanger and tape protector supports the meter on the casing and protects the tape from sharp edges on the well casing.

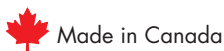
HERON ALSO MANUFACTURES:

- Water Level Meters
- Data Loggers
- Interface Meters
- Conductivity Meters
- Temperature Meters
- Well Casing Indicators
- Well Depth Indicators

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HERON
INSTRUMENTS INC.
Groundwater Monitoring

Water Tape and Skinny Dipper Water Level Meters

Operating and Maintenance Instructions



www.heroninstruments.com



Water Tape and Skinny Dipper Water Level Meter Instructions

General Care of Heron Water Level Meters (WLM)

Heron Instruments Water Level Meters are quality, robust units that will give many years of reliable service if these recommendations are followed:

- Avoid sharp edged casing, use the tape guide on the unit.
- Take care to avoid the tape becoming entangled with other equipment in boreholes or wells, use stilling pipes when possible.
- **DO NOT** use the **WLM** as a guide to backfilling, bentonite sealing or sand packing in wells. This type of material falls through the water column at a much slower rate than the **WLM** probe and can result in a trapped probe and tape.
- Neatly rewind and clean the tape after each use.
Refer to: [Cleaning the Heron Water Level Meter \(WLM\)](#)

Warranty is conditional upon adherence to these guidelines

Equipment Check

Before taking the unit into the field, carry out these simple tests with the sensitivity knob turned fully clockwise (see Figure 1), and make sure the two panel retaining thumb screws (nuts) are tight.

The sensitivity knob is used to adjust the unit's response to varying conductivities to maintain a sharp distinctive signal. Turn the knob clockwise for low conductivity (pure) water and anti-clockwise for high conductivity (dissolved minerals) water.

NOTE: There is no on/off switch on the instrument, the water is the switch. The **WLM** consumes no power when the probe is not in water.

To check the condition of the battery and circuit, press the **TEST** button. The unit should sound and the **INDICATOR** light will come on. If the unit does not respond, replace the battery and try again. **NOTE:** Accurate battery orientation diagram inside of battery box. (See Figure 1)

To test the entire unit from the panel to the probe, short the probe across the stand off screw and the pin on the axle as shown in figure 2, the unit should sound as above.

Use in the Field

Reel the tape down the well carefully avoiding the edge of the casing. Hang the **WLM** on the casing when possible and run the tape over the guide on the frame leg to avoid cuts and nicks to the tape. Swivel the probe holder on the frame to allow the tape free movement down the well. (See Figure 3)

When the unit sounds, carefully measure the depth to water indicated on the tape from your reference point. Raise and lower the probe in and out of the water to get a consistent result.

NOTE: The inverted triangle on the probe holder serves as a datum point indicating "top of casing". In wells that have cascading water that may give false readings, reduce the sensitivity by turning the sensitivity knob anti-clockwise.

DO NOT use the **WLM** to measure the progress of back filling wells. The tape and probe may become trapped in the backfill material.

DO NOT allow the tape to "freewheel" down the well. It may become caught in other equipment in the well.

When rewinding the tape remove as much water and debris as possible from the tape and the probe.

Cleaning the Heron Water Level Meter (WLM)

Always clean the meters after use in the field to maintain optimal performance and extend the life of the unit.

The **WLM** may be cleaned with any mild household dishwashing detergent and rinsed with water.

DO NOT use abrasives, partially halogenated hydrocarbons or ketones to clean the reel. If the electronic panel is removed first, the reel and tape can be washed with a power washer.

Remove the panel retaining thumb screws (nuts) to release the panel. Take care not to lose the thumb screws as the unit will not work without them.

For longer units with aluminium reel discs, the panel is connected to the tapes with male and female push connectors.

Troubleshooting the Heron Water Level Meter (WLM)

Q. No sound or light when the unit is tested.

A. Refer to **Equipment Check** and follow procedures. Change the battery.

Q. Equipment checked, panel okay but probe not working.

A. Make sure both panel retaining thumb screws (nuts) are tight.

Q. Still not sounding in water.

A. Adjust the sensitivity setting. If the unit still does not work check all the connections inside the hub (inside the hub polarity is not an issue as the current is AC).

Contact Heron Instruments or your supplier if you cannot isolate the problem.

Warranty (3 years, probe 1 year)

Heron Instruments Inc. warrants to repair or replace any such defective equipment or part (determined to our satisfaction to have a defect in workmanship or original material) upon receipt and inspection of such defective equipment to Heron Instruments Inc. with all shipping pre-paid by the user.

In no event shall Heron Instruments Inc. be liable for any direct, indirect or consequential damages, abuse, acts of third parties (rental equipment), environmental conditions or other expenses which may arise in connection with such defective equipment.

This warranty shall not apply to damage of equipment caused by improper installation, usage, storage, alteration or inadequate care.

Heron Warranty coverage does not extend to the following:

- Tape, bag or batteries used with the product
- Products used as rental equipment
- Products contaminated by materials which are known to be hazardous and; as such, have rendered the unit unserviceable
- Parts failure due to neglect in cleaning or incorrect servicing
- Failure of parts caused by misuse

For service information:

- visit www.heroninstruments.com under the **CONTACT** heading
- email service@heroninstruments.com
- call 1-800-331-2032 or 905-628-4999

Warranty is conditional upon adherence to these guidelines.