Operating and Maintenance Instructions Inside





Disengage the reel brake before operating the reel.
Failure to do so can cause the fuse to blow and/or damage the reel.
Keep away from moving components.
Should not be operated by anyone who does not have proper training relevant to the operation of motorized equipment. Do not use a winch. 2 perequipment on the proper training relevant to the operation recommended.

WARNING



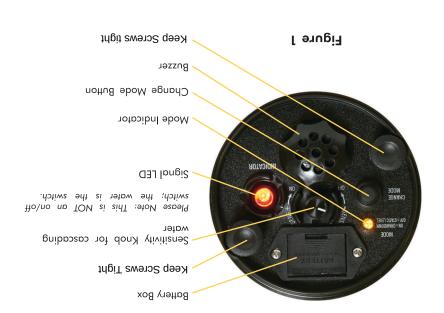


Before connecting the alligator clips from reel to a power supply, ensure the control switch is in the middle (OFF) position. Connect the red clip to the Positive terminal (+) and the black clip to the Negative terminal (-).

QUICK START

The motorized reel requires 12 Volt direct current pow-er supply capable of delivering 20 Amps of current. A typical example would be a standard car battery. The LongLiner is protected with an automotive 20Amp fuse.

INTRODUCTION





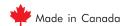


- Water Level Meters
- Data Loggers
- Interface Meters
- Conductivity Meters
- Well Casing Indicators
- Well Depth Indicators
- Tag Line
- Downhole Inspection Cameras

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LongLiner Static & Drawdown Levels



Operating and Maintenance Instructions



LongLiner Water Level Meter Instructions

General Care of the LongLiner

The LongLiner is a high quality, robust, premium water level meter, capable of 2 Functions - static and Drawdown levels. LongLiner will provide many years of reliable service when these recommendations are followed:

- Take care to avoid the tape becoming entangled with other equipment in boreholes or wells, use stilling pipes when
- Neatly rewind and clean the tape after each use. Refer to: Cleaning the LongLine

DO NOT use the LongLiner 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 LongLiner probe and can result in a trapped tape and probe.

DO NOT allow the tape to "freefall" down the well, it may become caught in other equipment in the well.

Warning: Long Liner is NOT intended for use as a winch or lifting device.

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 I), and the two panel retaining tight.

Insert battery drawer (battery included) into the battery compartment on the electronic panel. Note polarity.

Check the condition of battery and circuit by pressing the Change Mode button from static to Drawdown The unit will sound and the indicator light will come on when the probe is in air. If the unit does not respond, replace the battery and try again.

Test the entire unit by placing the probe in tap water. If the LongLiner

is working properly, the unit will sound as above.

DO NOT test in distilled water.

Use in the Field

The LongLiner operates in two modes, static and Drawdown. In static mode, the unit is silent until the probe touches the water. In Drawdown mode, the unit sounds and the light remains on when the probe is not

NOTE: There is no on/off switch on the instrument. If using in Drawdown mode, return the unit to static mode to turn indicators off. The LongLiner consumes no power in static mode when probe is not in water.

The sensitivity knob (see Figure I) is used to maintain a sharp distinctive signal by adjusting the unit's response to varying conductivities. Turn the knob clockwise for low conductivity water and counter-clockwise for high conductivity (dissolved minerals) water. In wells that have cascading water that may give false readings, reduce the sensitivity by turning the sensitivity counter-clockwise

Reel the tape down the well carefully, avoiding the edge of the casing

FOR STATIC MODE

When the unit sounds (in static mode) carefully measure the depth indicated from water on the your tape (inverted triangle)

Raise and lower the probe in and out of the water to ensure a consistent result.

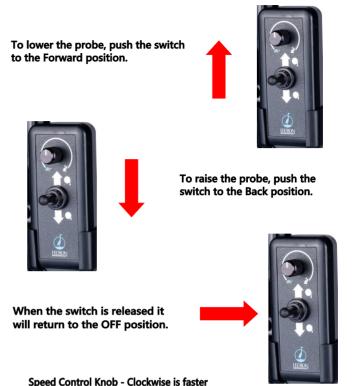
FOR DRAWDOWN MODE

When the probe is in water at the desired Drawdown level push the Change Mode button to Drawdown mode (see Figure I), the unit will now be silent in water and start pumping the water out. Once the water goes past the tip of the probe, the unit will sound in air. Turn off pump and put the LongLiner back in static mode.

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

Caution: Note the blue indicator on the tape to avoid injury from the probe coming out of the well too guickly.

Operating the LongLiner



Warranty (2 years, probe 1 year)*

Heron Instruments Inc. warrants to repair or replace any defective equipment or part upon inspection by a Heron service technician. Warranty will be determined to our satisfaction to have a defect in workmanship or original material. The customer is responsible for all shipping fees to return the item to Heron.

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

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

Heron Instruments Warranty coverage does not extend to the following:

Tape or batteries used with the product.

Products used as rental equipment

Products contaminated by materials which are known to be hazardous and have rendered the unit unserviceable.

Parts failure due to neglect in cleaning or servicing Failure of parts caused by misuse.

* unless otherwise specified under local law

For service information:

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