## HERON INSTRUMENTS INC

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**www.heroninstruments.com**

for more information on the complete product line.


### Certifications

**c-QPS-us LR3030**
**Class I, Div 1, Groups CD T3;**
**Ex ia IIB T3 Ga**
**Class I, Zone 0, AEx ia IIB T3 Ga**
**IECEx QPS 23.0008X**
**Ex ia IIB T3 Ga**
**QPS23ATEX5003X**
**CE 2900 Ex II 1G**
**3CT 23UKEX1002X**
**UKCA 2900 Ex II 1G**
**TAmb (Probe) = -45°C to +135°C**
**TAmb (Reel) = -45°C to +55°C**

Made in Canada

# H.OIL

## Interface & Static Levels

Operating and Maintenance Instructions

## H.OIL Electronic Panel

Image 1

### Image 2

To remove the probe, you simply unscrew the probe from the link. When replacing the probe, make sure the connections are tight.

### Image 3

**Hanger** to support the meter at the well head.

**Tape Guide** to protect the tape from sharp edges.

| Item | Part Numbers |
|---|---|
| H.OIL Electronic Panel | 1621-2 |
| H.OIL Probe | 1609-2 |
| Ground Lead | 1675-2 |

**Operating and Maintenance Instructions Inside**

# H.OIL Interface Meter Instructions

## General Care of the H.OIL

The H.OIL has been designed to provide years of reliable, accurate measurements of floating product (L.N.A.P.L) and sinking layers (D.N.A.P.L.). The **Intrinsically Safe Certification** makes the H.OIL ideal for use in hazardous environments.

- Avoid sharp edged casing, use the tape guide on the unit to prevent damage to the tape.
- Take care to avoid the tape becoming entangled with other equipment in boreholes or wells, use stilling pipes when possible.
- Neatly rewind and clean the tape after each use. Refer to: Cleaning the H.OIL.

**DO NOT** use the H.OIL 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 H.OIL 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.

**Warranty is conditional upon adherence to these guidelines.**

## Equipment Check

Switch the H.OIL on by pushing the power button to the left on the electronic panel (Image 1). The LED and audio indicator will indicate battery status (Image 1) with 5 to 1 quick beeps/flashes, the number of beeps/flashes indicates the battery level.

-**5** quick beeps/flashes = battery level is >80%

--**4** quick beeps/flashes = battery level is 60%-80%

-**3** quick beeps/flashes = battery level is 40%-60

--**2** quick beeps/flashes = battery level is 20%-40%

-**1** beep/flash = battery level is <20% - change battery soon

If there is a longer beep/flash, there is an issue with the unit. Please check the troubleshooting section for the built-in error codes.

The LED light will flash steady (with no beeps) to indicate the unit is on and not in use. When not in use, the unit will automatically turn off 5 minutes after the last detection to conserve the battery. To turn the unit off, push the power button.

- Inspect the probe lens for any signs of damage or buildup of dirt/residue. The lens should be clean and clear before use.
- To maintain intrinsic safety, ensure the ground lead is securely fastened to the back of the frame and in good condition.
- Test unit by lowering probe into water (intermittent tone will indicate).

## Use in the Field

Before using the H.OIL, ensure the ground lead is connected to a grounding source. Switch the unit on by pushing the power button on of the electronic panel (see Image1). If not in use, the unit will switch itself off automatically 5 minutes after last detection. The quick beeps/flashing LED light indicates battery power level and that the unit is ready for use. If the unit powers off, push the power button again to re-start the unit.

- To avoid damaging the tape on the side of the casing, hang the H.OIL on the casing and run the tape over the guide on the frame leg (see Image 3). If you cannot hang the unit, hold the H.OIL away from the side of the casing and guide the tape down the center of the well.
- Swivel the probe holder on the frame to allow the tape free movement down the well (see Image 3).
- Note the inverted triangle on the probe holder serves as a datum point indicating "top of casing" (see Image 3).
- When taking measurements, it is suggested to lower the probe down the well until the top of the water/product is reached. **Water is indicated by an intermittent tone and product is indicated by a solid tone**. Note the depth marking on the tape. **DO NOT** try to measure the product/water interface at this stage. Allow the probe to pass through any product into the water below (indicated by the intermittent tone). Now slowly withdraw the probe until the tone changes from intermittent to solid. This point indicates the base of the product layer. Note the depth marking on the tape. This method avoids having the product drawn down into the water giving false interface readings.
- In cold weather, condensation may form on the lens as it contacts the warmer moist air in the well, this causes the unit to falsely sound as product. To overcome this, allow the probe to acclimatize in the well or lower the probe into the water, then take readings.
- When rewinding the tape, remove as much water and debris as possible from the tape and probe.

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

## Removing the Probe

To remove the probe, you simply unscrew the probe from the link. When replacing the probe, make sure the connections are tight.

## Cleaning the H.OIL

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

If the electronic panel is removed first, the reel and tape can be washed gently with a power washer. Remove the screws (Image 1) to release the panel (take care not to lose the screws).

We strongly recommend using biodegradable household dishwashing liquid. The reel, tape and probe may be cleaned and de-greased with the following:

- Soap solution
- Joy®
- Formula 409®
- Fantastic®
- Top Job®
- GOO-GONE®
- Windex®
- Mr. Clean®
- Green Clean®

**NOTE: DO NOT** clean the probe lens with any abrasive cleaners or products that contain alcohol.
**DO NOT** scratch lens when cleaning.

## Troubleshooting the H.OIL

**Q. Why is there a longer beep/flash after the initial 5 seconds startup battery indicator?**
**A.** There is a built-in error code upon startup:
- 1 long beep = There is an open circuit (the connection is broken). Check if there is a break in the tape (wires fully severed), or a disconnected probe from link, or the tape is disconnected from the panel.
- 2 long beeps = There is a short (2 wires are touching). Check the tape for damage (coating has a hole or cut in it), the link or probe for water inside.
- 3 long beeps = There is a communication error. This could be the wrong probe is attached, water inside the probe or link.

**Q. Why did the unit turn off while in use?**
**A.** Please see question 1 for the built-in error code.
**Q. Why does the unit continuously sound when the probe is not in water/product?**
**A.** Make sure probe lens is clean and clear.
Make sure there is no condensation build-up on the lens.
**Q. Why won't the unit turn on?**
**A.** The battery may be dead, replace the battery.

For more troubleshooting tips please visit our website at **www.heroninstruments.com**

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

## 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, bag 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

**Intrinsically Safe/Sécurité Intrinsèque:**
**Use only battery/Utiliser uniquement des accumulateurs Duracell MN1604, Procell PC1604, Energizer 522.**
**Always use grounding cable/Utilisez toujours un câble de mise à la terre.**

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