product manual

H-4040 Series

Water Level Indicators

GENERAL

The H-4040 Series Water Level Indicators are self-contained instruments for determining water levels in wells, bore holes, etc. Each unit consists of a hand-held wire spool with indicator module, measuring cable and probe. The spool constructed ABS plastic and steel is equipped with a brake and clip for probe storage.

The indicator module has both audible and visual indicators to show when water has been detected. A standard 9-volt battery is the only power source required. The multi-conductor cable does not require any additional connections or ground wires. The wire used is high-strength, hard-drawn, copper-coated steel for stretch resistance. Markings are permanently embossed on the wire.

The probe is constructed of stainless steel and PTFE for environmentally sensitive testing.

FEATURES OF MODULE

The following features are included on the front panel of the CONTROL MODULE:

- The POWER SWITCH controls power to the instrument and is labeled ON- OFF. The unit in ON when the switch is in the LEFT position.
- The TEST BUTTON, labeled TEST, is used to check the battery condition and test the horn.
- The RED LIGHT at the top of the panel serves two functions. First, it indicates the condition of the battery. It also works in conjunction with the horn, as an indicator to announce when water has been located.
- The HORN, in the center of the panel, provides audible signal when water is contacted. The horn is not labeled.
- The SENSITIVITY CONTROL provides a means to adjust the instrument and compensates for varying water conditions.

MAXIMUM SELECTIVITY

Maximum selectivity is that point where the instrument can best differentiate between the static water level and water that may be cascading from above. Do the following to make the water level indicator be most selective:

Turn the power switch to ON.

Set the SENSITIVITY CONTROL mid-range or higher (clockwise).

Lower the probe down the well or bore hole until the instrument indicates you have contacted water. Leave the probe submerged with buzzer & light operating.

Rotate the SENSITIVITY CONTROL counter-clockwise (toward -) until the light and buzzer shut off.

Now slowly rotate the SENSITIVITY CONTROL clockwise (toward +), until the light and buzzer start to function again. Try moving the probe in and out of the water and observe the indicators on the front panel. The instrument should respond with a solid on/off response. If that isn't happening, make a final adjustment by rotating the knob clockwise very slightly.

MAINTENANCE - PROBE

Keeping the probe clean is essential for reliable operation. The white plastic tip must be clean and slippery enough to shed water quickly. This is important because the instrument can sense any film of water that may remain between the two sensing needles when the SENSITIVITY CONTROL is at the higher settings.

Often a probe needs only to be washed in soapy water followed by a clear water rinse. In extreme cases, use a non-abrasive liquid kitchen/bath cleaner good for removing grease. Follow up with soap wash/clear water rinse.

Don’t use strong chemicals/abrasives for cleaning.
DO NOT DISASSEMBLE THE PROBE!

WATER LEVEL INDICATOR OPERATING INSTRUCTIONS

1. Check the condition of the battery by first turning on-off switch all the way to the left into the “on” position and then pressing the “test” button
    a. If unit beeps and the red-light illuminates continue with operation
    b. If unit fails to beep and light up see “battery replacement” section for steps to replace battery
2. Release brake by rotating knob on back of unit counterclockwise till the spool spins freely. - See figure 3
3. Optional step – to familiarize yourself with the operation of the unit, you can dip the probe into cup of water. When the water comes into contact with the two tips inside the probe the water level indicator will beep, and the red light will illuminate on the face of the spool. Use sensitivity knob to adjust sensitivity to adjust for varying conditions. When probe is removed from water the light and beep will turn off.
4. Turn sensitivity knob clockwise approx. halfway. For more information see maximum selectivity section

5. Guide probe into well, bore hole, etc.
6. When unit beeps and red light is illuminated water has been reached
7. Check nearest stamped number & mark for your overall depth
8. Wind the cable back onto the spool & reengage brake to prevent spool from unwinding & clip probe to mounting clip on the handle
9. Once test is completed clean probe and the weights with fresh clean water and dry it thoroughly.
10. Ensure unit is turned off and the turn the sensitivity knob counterclockwise to its lowest setting to conserve the battery.

9V BATTERY REPLACEMENT

1. To replace battery, remove two screws on front face plate
2. Gently pull face plate with circuit board out and away from unit
3. Remove hard fiber board and foam till battery is located
4. Replace the 9v battery
5. Reinsert 9v battery and hard fiber and foam into unit (see figure 2)
6. Replace 2 screws after carefully inserting circuit board and faceplate. Be careful not to damage or pinch the wires.
   (DO NOT OVER TIGHTEN SCREWS)
7. Turn unit on and press test button to confirm unit is ready for operation.

SERIAL NUMBER

The serial number for each H-4040.xxx can be found inside the spool. To access remove, see 9V BATTERY REPLACEMENT section for step by step instructions. This information may be needed for warranty and repairs.

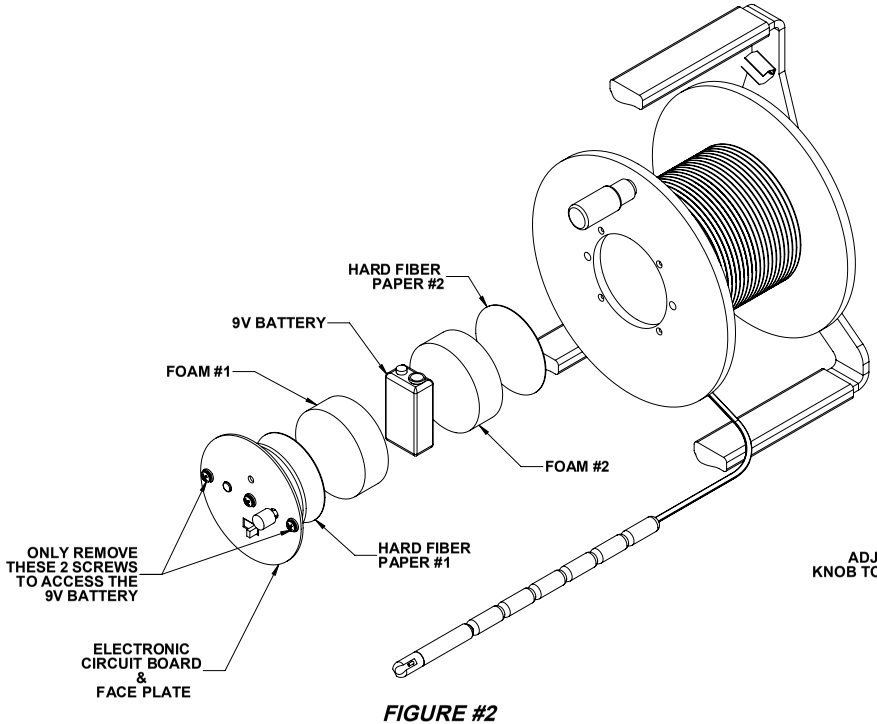

FIGURE #2

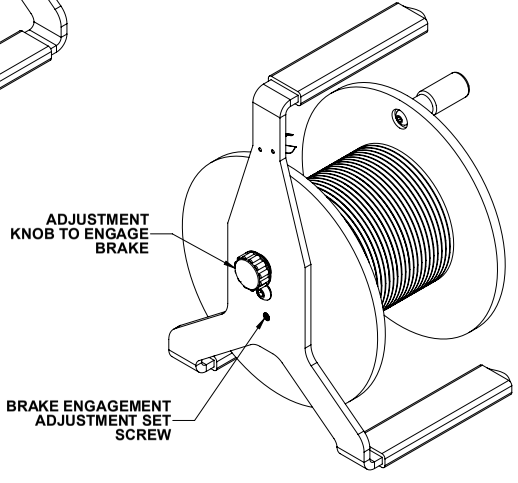

FIGURE #3

Warranty
Humboldt Mfg. Co. warrants its products to be free from defects in material or workmanship. The exclusive remedy for this warranty is Humboldt Mfg. Co., factory replacement of any part or parts of such product, for the warranty of this product please refer to Humboldt Mfg. Co. catalog on Terms and Conditions of Sale. The purchaser is responsible for the transportation charges. Humboldt Mfg. Co. shall not be responsible under this warranty if the goods have been improperly maintained, installed, operated or the goods have been altered or modified so as to adversely affect the operation, use performance or durability or so as to change their intended use. The Humboldt Mfg. Co. liability under the warranty contained in this clause is limited to the repair or replacement of defective goods and making good, defective workmanship.

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