Solinst® Water Level Meter: Op Instructions

Model 101

Equipment Check

1. Turn Sensitivity Dial fully clockwise.

Notes:
- clockwise rotation of sensitivity dial turns meter on and increases sensitivity.
- always set switch to highest sensitivity position, then decrease if necessary.

2. Depress the Battery Test button to test the battery and circuitry (excluding the probe when not in use).
3. Submerse the probe into a container of tap water. This completes the circuit and activate the buzzer and light.

Water Level Measurement

Note: The P2 Probe is not designed for sounding the bottom of a well. Water may get into the Probe and cause the meter to sound continuously.

The zero measurement point for the following probes are:

P2 Probe: tip of the inner sensor pin visible near the centre of the probe

P4 Probe: tip of inner electrode at base of probe.

P5 Probe: exposed electrode at tip of probe.

Using the Tape Guide

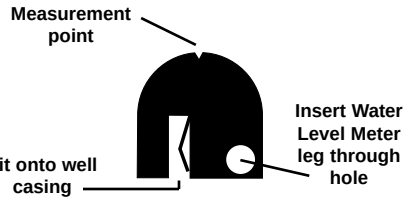
Note: To store the Tape Guide, simply clip it onto the support bracket located on the back of the Water Level Meter.

1. **The tape guide has been designed to:**
   - improve accuracy when reading water levels
   - easily obtain repeatable measurements
   - prevent tape being cut by well casing
   - allow the tape and probe to hang straight from the side of the well.
2. Feed the tape into and out of the well using the groove in the top of the Tape Guide.
3. For ease of operation the tape guide can be used to support the water level meter.

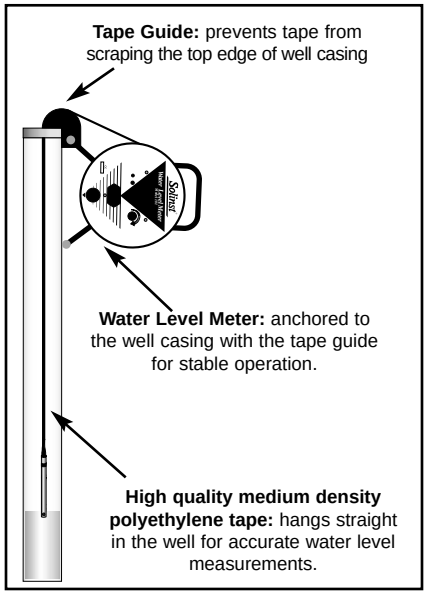
   Simply fit the small end of the tape guide onto the edge of the well casing (2" dia. or larger).

   Insert the leg of the Water Level Meter into the hole on the Tape Guide and rest the Water Level Meter on the side of the well casing. (see diagram on right).

Tape Guide



Note: When using the tape guide, the measuring point is offset from the top of casing. To adjust your measurements to the top of the casing, simply subtract the amount indicated on the front of the tape guide (ie 6 cm or 2/10 ft.).



Routine Care

1. After the depth to water has been recorded, the tape should be carefully rewound onto the reel, the probe wiped dry and placed into the probe holder.
2. The probe, tape and reel can be cleaned with phosphate free (non-abrasive) detergent and warm water.
3. Use of a Water Level Meter Carrying Bag adds to the service life of the meter.
4. Use of the Tape Guide adds to the life of the tape.

Care of the P4 Probe

Note: Do not remove or twist strain relief pieces at the top of the probe as this will cause damage to the pressure seal. If the pressure seal integrity is in question, please call Solinst for the best repair option.

1. While holding firmly onto the black Delrin section at the top of the probe, turn the P4 sleeve body clockwise slightly and pull down. **Do not twist back and forth.**
2. Remove any dirt and water from inside the sleeve body, the centre electrode and the Teflon® pieces.
3. Carefully pull the coil spring from its recessed area and onto the centre electrode.
4. Clean the recessed area where the coil spring rests and check to see that the exposed wire is in place and clean.
5. Push the coil spring back into place. The cant of the spring must curve clockwise when observing from the bottom of the probe.
6. Remove and clean o-rings. Clean recessed areas and check o-rings for damage. Lightly lubricate and replace o-rings.
7. Turning clockwise slightly, gently push the sleeve body over the electrode to the black Delrin piece.
8. To test, turn the unit on and lower the probe into a glass of water. When the probe touches water, the buzzer will sound and the light will come on.
9. Wipe dry and return to probe holder.

Battery Replacement

- battery type - alkaline, 9 volt.

1. The battery is housed in a convenient battery drawer located in the faceplate of the Water Level Meter.
2. To replace the battery, simply press the drawer in, lift then pull.
3. The battery drawer should slide out of the faceplate enough to pull it out.
4. Note the polarity and place new battery in the drawer and slide it back into the faceplate.

Replacement Parts

The following parts can be replaced should they become lost or damaged.

1. Probes and seal kits
2. Splice kits
3. Lights, switches, etc.
4. Reels
5. Replacement tape with probe (complete).

SYMPTOM	CAUSE	REMEDY
No sound when probe immersed in water.	Dead battery	Replace with 9V Alkaline
	Water conductivity is very low	Increase sensitivity switch setting (turn clockwise) or call Solinst for assistance
	Disconnected wires on circuit board	Check all connections inside hub of reel for loose/disconnected wires - solder or reconnect
	Broken wire in tape	Locate break in tape - splice and seal (Contact Solinst)
	Disconnected wire inside probe	Contact Solinst to obtain parts/repair instructions
Instrument continuously sounds after being immersed in water.	• Water in probe • Probe may be dirty which could interfere with the circuit connection	**P4 Probe:** please follow instructions above. If water is inside the probe, there has been a breach of the probe seal. Inspect the o-rings and replace if necessary. If problem persists, contact Solinst. **Other probes:** call Solinst for instructions to remove, clean and reseal probe.

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