

# Calibration and Maintenance of HM Digital Products



## Calibration

1. HM Digital meters come factory calibrated (at 342 PPM) and are ready to use. They are designed to stay consistent. However, after prolonged usage, it may help to recalibrate your meter using a commercial standard NaCl-based solution, which is approximately, 0.5  $\mu$ S of conductivity.
2. Immerse the meter into the calibration solution. If the meter does not read within 2% of the calibration solution, adjust the reading by inserting a mini screwdriver (not included) into the trimmer pot (the hole on the back of the meter). Turn the trimmer clockwise to increase the reading and counterclockwise to decrease the reading. Note that the adjuster is very sensitive.

**NOTE:** HM Digital products are calibrated with a 342 PPM NaCl solution. This is suitable for most applications. However, if you are measuring samples that are consistently over 1000 PPM, it is recommended to recalibrate the meter for that specific application. TDS meters are more accurate when calibrated at levels that are as close as possible to the sample being tested (such as for hydroponics, aquaculture, tinting and dying or brackish water). We sell NaCl calibration solution at 342 PPM and 1000 PPM. Calibration solutions at significantly higher levels are commercially available.

## Care and Maintenance

1. Do not drop or completely submerge the unit in water or dip beyond the maximum immersion level. This unit is not watertight and is not covered under the warranty if water gets into the unit. (**NOTE:** The COM-100 is watertight and completely submersible. Please ensure that the battery compartment and probe gasket ring are firmly tightened before submersing in water.)
2. Do not store the unit in high temperature or direct sunlight. This will shorten the lifespan of the product.
3. After repeated usage in high TDS water, it is advised to clean the electrodes to prevent residue build-up.
4. When necessary, clean the electrodes by soaking the tip in an acid (e.g., vinegar or diluted hydrochloric acid (muriatic acid)) and then rinsing well in water. If it is heavily fouled with organic material, soaking the tip in alcohol or bleach may help. Gentle wiping with a soft, nonabrasive cloth may also be acceptable.
5. The batteries may need to be replaced after extended usage or lifespan. To change the batteries, remove the top compartment of the meter (on the opposite end of the sensor) and insert new batteries according to the polarity of the diagram inside. For maximum life, use battery style SR-44 (silver oxide) button cell such as No. 357A, R1154 or GPS78E.



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