

HHCD

Conductivity / Total Dissolved Solids Pocket Tester

Operator's Manual



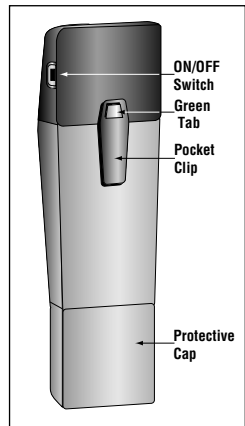
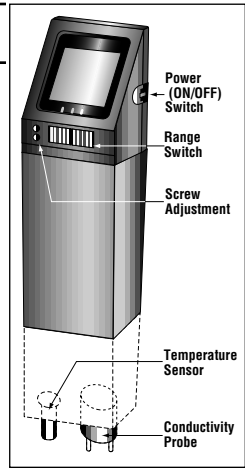
GENERAL DESCRIPTION

The HHCD Conductivity/Total Dissolved Solids Tester is an economical, portable handheld unit, ideal for quick field checks of water-based solutions. It features large display (.5" - 12.7mm), for easy reading, automatic temperature compensation, and calibration trimmers. All readings are referenced to 25°C using a 2% per °C temperature coefficient. The HHCD displays Conductivity in microsiemens/cm and millisiemens/cm, or Total Dissolved Solids in ppm and ppt (1ppm=2uS/cm). The change from Conductivity to TDS is done from the switch below the batteries.

Caution: Never immerse the tester more than 2 inches from the sensor tip.

OPERATING PROCEDURE

1. Remove the protective cap.
2. Turn the HHCD on using the ON/OFF switch located on the top right side of the unit. Check display units of measure for TDS or conductivity ranges and remove green plug-in electrode to access the two position switch below batteries.
3. With a clean probe the unit should read 00.
4. Select the range for the solution to be measured from the Range Switch.
5. Dip the HHCD to the immersion level, and stir gently, allowing few seconds for the reading to stabilize.
6. Units are shipped factory calibrated; however, should calibration be required, the "Z" zero and "S" span adjustments are on the left side of the Range Switch. Start by checking and adjusting zero in air if needed, then immerse the unit in a standard solution of a known value. The value of this solution should be close to that of the solution to be measured. To calibrate adjust the span trimmer until the display matches the value of the standard solution.
7. To improve performance, clean the stainless steel electrodes periodically with a mild detergent or solvent (i.e.alcohol) because salts can built up. Rinse with distilled or de-ionized water.



- When not in use, switch off the instrument. Rinse the electrode with distilled water, shake off any excess, and place the protective cap on.

CHANGING BATTERIES

Remove the green plug-in electrode by pressing the green tab above the pocket clip. Replace old batteries with fresh ones. The notice polarity is shown in the battery compartment.

SPECIFICATIONS

Range:

Cond.	0 to 199 μ S/cm	.0 to 1.99 mS/cm	0.0 to 19.9 mS/cm
TDS	0 to 199 ppm	.0 to 1.99 ppt	0.0 to 19.9 ppt

Resolution: 1 μ S/cm or ppm .01mS/cm or ppt .1mS/cm or ppt

Accuracy: \pm 2% of full scale
 \pm 4 μ S/cm or ppm \pm .04mS/cm or ppt \pm .4mS/cm or ppt

Electrodes: Stainless steel

Operating Temperature: 0 to 70 °C (32 to 158 °F), Automatic Temperature Compensation uses a precision temperature sensor with 2% per °C temperature coefficient; readings are referenced to 25 °C.

Display: 2 1/2 digits 12.7mm (0.5") high LCD

Battery: Three 1.35V (included)(EVEREADY 357)

Battery Life: 50 hours continuous

Dimensions: 162 x 43 x 23mm (6"H x 1.7"W x 0.9"D)

Weight: 113 g (4 oz)

Patent Notice:

This product may be covered by one or more of the following patents:
U.S. Patents Des. 351,803; /CANADA 74,336 $\text{\textcircled{D}}$
Newport Electronics, Inc.

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Warranty/Disclaimer

NEWPORT ELECTRONICS, INC. warrants this unit to be free of defects in materials and workmanship for a period of one (1) year from the date of delivery. In addition to NEWPORT's standard warranty period, NEWPORT ELECTRONICS will extend the warranty period for one (1) additional year if the warranty card enclosed with each instrument is returned to NEWPORT.

If the unit should malfunction, it must be returned to the factory for evaluation. NEWPORT's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by NEWPORT, if the unit is found to be defective it will be repaired or replaced at no charge. NEWPORT's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of being damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; or other operating conditions outside of NEWPORT's control. Components which wear are not warranted, including but not limited to contact points, fuses, and triacs.

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Return Requests/Inquiries

Direct all warranty and repair requests/inquiries to the NEWPORT Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO NEWPORT, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM NEWPORT'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR WARRANTY RETURNS, please have the following information available BEFORE contacting NEWPORT:

1. P.O. number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR NON-WARRANTY REPAIRS, consult NEWPORT for current repair charges. Have the following information available BEFORE contacting NEWPORT:

1. P.O. number to cover the COST of the repair,
2. Model and serial number of product, and
3. Repair instructions and/or specific problems relative to the product.

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