

CDH-95

Resistivity Meter



Operator's Manual



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OMEGA is glad to offer suggestions on the use of its various products. Nevertheless, OMEGA only warrants that the parts manufactured by it will be as specified and free of defects.

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SPECIAL CONDITION: Should this equipment be used in or with any nuclear installation or activity, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the equipment in such a manner.

RETURN REQUESTS / INQUIRIES

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

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 OR **CALIBRATION**, consult OMEGA for current repair/calibration charges.

Have the following information available BEFORE contacting OMEGA:

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

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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Unpacking

Remove the Packing List and verify that you have received all equipment, including the following (quantities in parentheses):.

- 1 soft carrying case
- 1 9V alkaline battery
- 1 Operator's Manual

The carrying case contains the following:

- 1 small screwdriver
- 1 CDH-95

If you have any questions about the shipment, please call the OMEGA Customer Service Department.

When you receive the shipment, inspect the container and equipment for signs of damage. Note any evidence of rough handling in transit. Immediately report any damage to the shipping agent.



Note

The carrier will not honor damage claims unless all shipping material is saved for inspection. After examining and removing contents, save packing material and carton in the event reshipment is necessary.



General Description

The OMEGA® CDH-95 measures resistivity across three ranges from ∞ to 200K, 20K, and 2K Ohms/Cubic Inch which makes it an excellent choice for spot checking the resistivity of samples ranging from ultra-pure water to tap water especially useful for quality control in electronics assembly.

Parts of the Meter

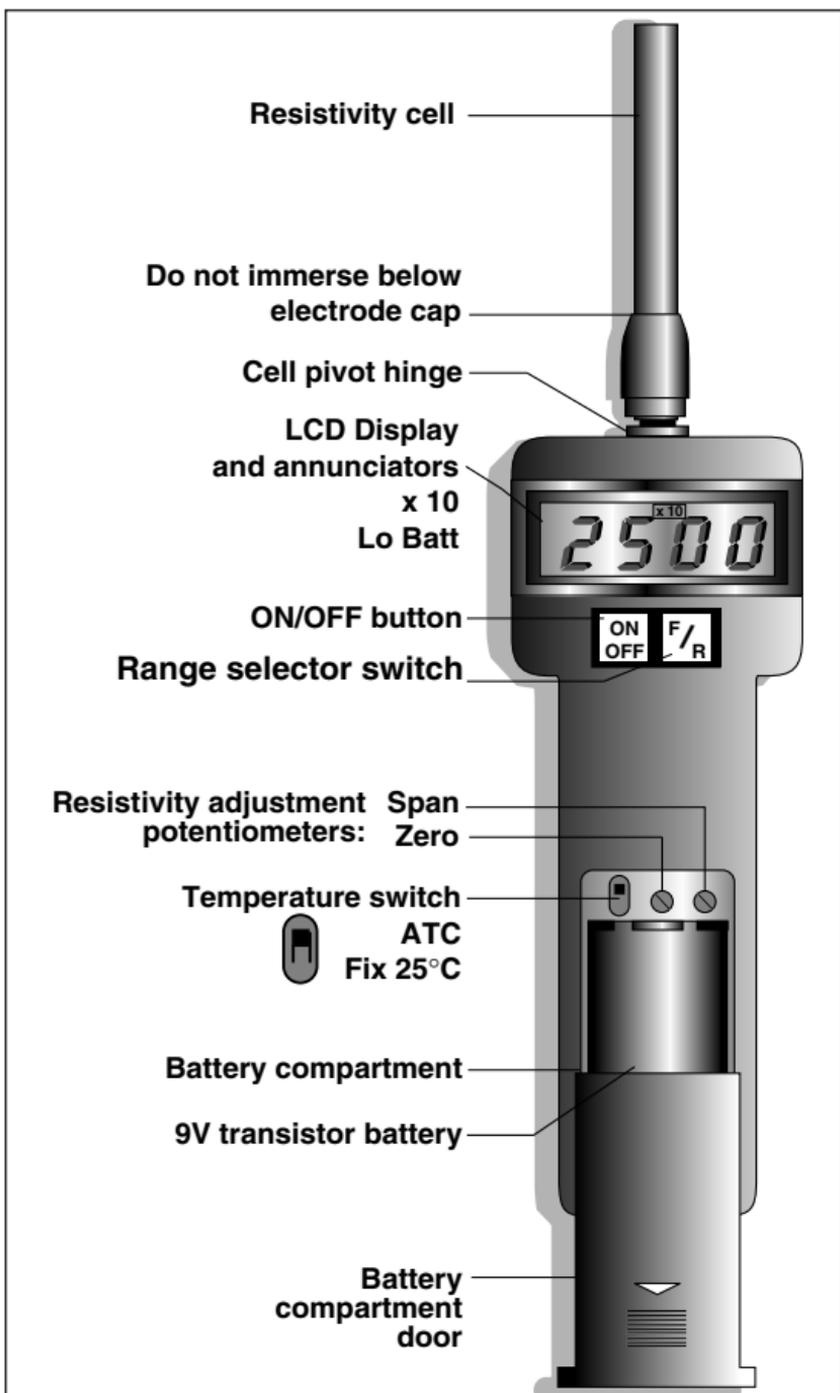


Figure 1. Parts of the Meter



Setting Up the Meter

Installing the Battery (Fig 2)

Carefully remove the meter from the carrying case making sure you don't lose the small screwdriver.

To install/change the battery, do the following:

1. Insert your thumb in the recessed area of the battery compartment door and pull it away from the display.
2. Snap the 9V alkaline battery into the battery clip.
3. Place the battery clip/battery assembly at the top of the battery compartment.
3. Replace the battery compartment door and snap into place.

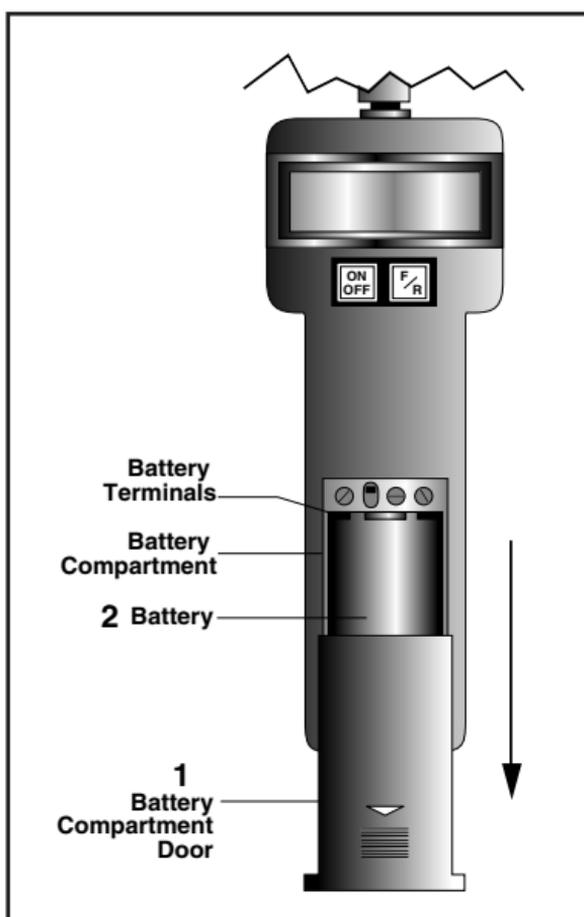


Figure 2. Installing the Battery



Operating Instructions

1. Slide the battery compartment door open to reveal the temperature switch
2. Push the switch to the ATC (forward) position.
3. If non-temperature compensated readings are desired, put the temperature switch in the FIXED 25°C position.
4. Energize by depressing the ON/OFF switch once
5. Immerse cell into the solution approximately $1/2$ its length.
6. When energized, the LCD will indicate the resistivity range being measured.
7. The CDH-95 measures 3 ranges of resistivity in the following sequence; 0 to 200K, 0 to 20K, and 0 to 2K & ohms/in.³. For each range change desired, depress the F/R switch once.
8. Agitate electrode briefly and record the reading.
9. A 1 will appear in the indicator if the solution exceeds the measurement range.
10. After each use, clean and rinse the resistivity cell with distilled water.



Operating Tips

1. The electrode should be rinsed thoroughly after each test.
2. When possible, test samples of a higher resistivity value first.
3. If resistivity cell does not "1---" in the air, it may indicate dried solids on the sensing portion of the cell. Clean with a mild detergent solution, remembering not to use abrasive materials that might scratch the sensors surface.
4. When possible, choose resistivity calibration solutions with values that are near the samples normally being measured.
5. If the instrument will be stored for long periods of time, remove the battery.





Calibrating the Meter

Your instrument has been pre-calibrated prior shipment. Calibrations should be performed periodically with known resistivity solutions.

1. Clean the cell thoroughly by agitating in distilled water prior to calibration.
2. Wipe off and allow the cell to dry.
3. Once dry, resistivity should read 0 when 2 pins in cell are shorted.
4. Adjust the "Zero" pot to zero if the reading is incorrect.
5. Immerse the cell in a known resistivity solution, adjust the span pot to corresponding resistivity value.
6. Only a single point calibration in the 200K range is required to standardize. However, if the unit is to be used primarily in a higher or lower range, it is recommended that the single point calibration be performed near point of use and in the correct range for best accuracy and resolution.
7. Rinse the cell in distilled water.



CDH-95 Resistivity Meter

Specifications

Range: ∞ to 200K, ∞ to 20K, ∞ to 2K Ohm/Cubic inch

Accuracy: $\pm 2\%$ of full scale

Temperature Compensation: 0 to 82°C

Accuracy: 0.0 to 50°C, $\pm 0.01\%$
50 to 82°C, $\pm 0.03\%$

Power: 9V Battery

