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# Analog Resistivity Meter

**Part No. 130-85**

## Instruction Manual

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Ver. 2.0

**OFI Testing Equipment, Inc.**

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## ***Intro***

The OFITE Resistivity Meter is a portable measuring device designed to give a quick, reliable measurement of the resistivity of a small sample expressed in ohm-meters. The transistorized meter accurately measures the resistivity of fluids, slurries and semisolids having resistivities from 0.01 to 10 ohm-meter. This ohm-meter reading may be converted into parts per million (ppm) Sodium Chloride using the nomograph provided. Conductivity is the reciprocal of resistivity.

The transparent lucite cell with built-in thermometer may be easily removed and cleaned. The meter is powered by readily available 9 volt batteries and it is rugged and suitable for field usage.

## ***Components***

#130-85-02 Resistivity Probe  
#130-85-04 Rubber Suction Bulb for Probe  
#147-02 9-Volt Battery  
#165-43 Pipe Cleaner

Optional:

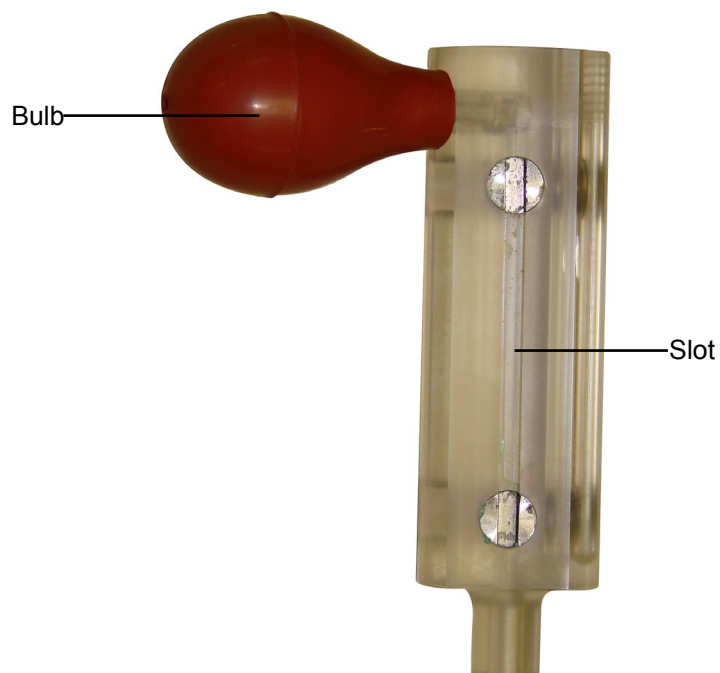
#130-87-014 Calibration Fluid, 1,413 Microsiemens  
#130-87-015 Calibration Fluid, 10,000 Microsiemens  
#130-87-016 Calibration Fluid, 50,000 Microsiemens

## Procedure

1. Use the suction bulb to pull the sample into the lucite cell. Empty and refill the cell several times to thoroughly wet the cylinder walls.
2. Connect the cell assembly to the two terminal posts on the meter. Be sure the sample fills the area between the two metal posts in the cell. If the sample is not at room temperature, wait for the temperature of the sample and cell to reach equilibrium.
3. Depress and hold the black button to calibrate the meter. Turn the adjusting control knob to set the meter needle to the "ADJ" position.
4. Depress both the black and the red button at the same time, and read the resistivity of the sample directly from the meter in ohm-meters.
5. Using the thermometer in the cell wall, read and note the temperature of the sample.
6. Using the nomograph, convert the resistivity value to concentration of Chlorides.

### Semi Solid Samples (Filter cakes, Mud Solids, etc.):

1. Prepare samples of uniform moisture content.
2. Fill the slot on the outer surface of the cell completely with a semi-solid sample.
3. Follow steps 2 through 6 in the above procedure.

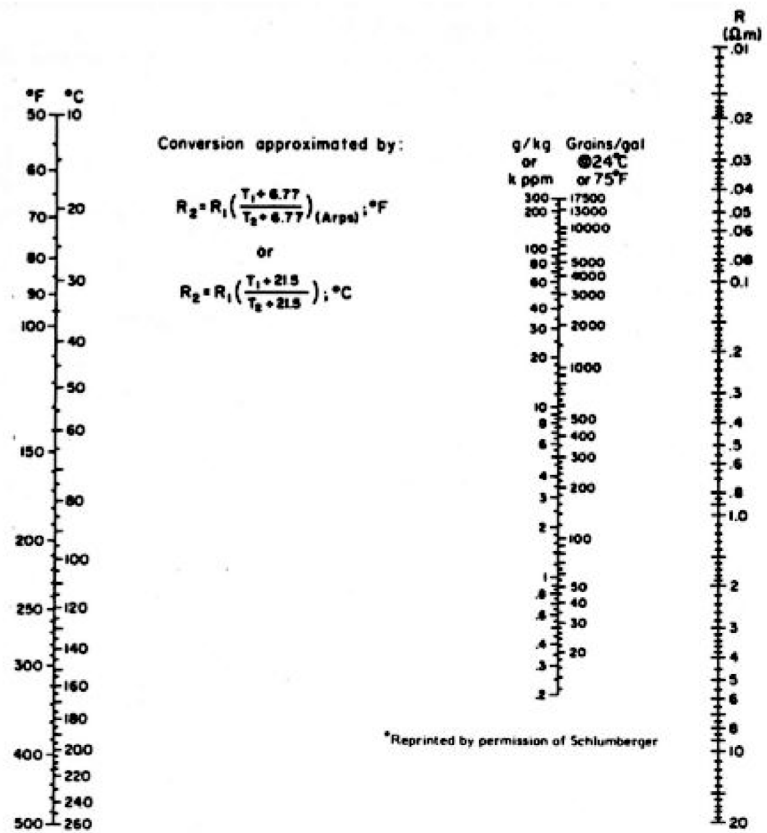


## ***Maintenance***

1. Always clean the cell immediately after making a measurement. Purge the cell with distilled water until it is clear. If additional cleaning is necessary, use a pipe cleaner and mild soap. Use no other solvents. Avoid scratching the surface of the cell.
2. When it is no longer possible to calibrate the meter with the zero control, replace the 9-volt alkaline batteries (#147-02). Observe the polarity markings on the printed circuit board.
3. If the mercury in the sample cell thermometer separates, it must be reunited. First try shaking it down. If this does not reunite the mercury, place the cell into hot water until the mercury just enters the top void. Then remove the cell from the hot water and insert it into ice water to pull the loose mercury into the graduated tube.

# Nomograph

## RESISTIVITY NOMOGRAPH FOR NaCl SOLUTIONS



# Warranty and Return Policy

## Warranty:

OFI Testing Equipment, Inc. (OFITE) warrants that the products shall be free from liens and defects in title, and shall conform in all respects to the terms of the sales order and the specifications applicable to the products. All products shall be furnished subject to OFITE's standard manufacturing variations and practices. Unless the warranty period is otherwise extended in writing, the following warranty shall apply: if, at any time prior to twelve (12) months from the date of invoice, the products, or any part thereof, do not conform to these warranties or to the specifications applicable thereto, and OFITE is so notified in writing upon discovery, OFITE shall promptly repair or replace the defective products. Notwithstanding the foregoing, OFITE's warranty obligations shall not extend to any use by the buyer of the products in conditions more severe than OFITE's recommendations, nor to any defects which were visually observable by the buyer but which are not promptly brought to OFITE's attention.

In the event that the buyer has purchased installation and commissioning services on applicable products, the above warranty shall extend for an additional period of twelve (12) months from the date of the original warranty expiration for such products.

In the event that OFITE is requested to provide customized research and development for the buyer, OFITE shall use its best efforts but makes no guarantees to the buyer that any products will be provided.

OFITE makes no other warranties or guarantees to the buyer, either express or implied, and the warranties provided in this clause shall be exclusive of any other warranties including ANY IMPLIED OR STATUTORY WARRANTIES OF FITNESS FOR PURPOSE, MERCHANTABILITY, AND OTHER STATUTORY REMEDIES WHICH ARE WAIVED.

This limited warranty does not cover any losses or damages that occur as a result of:

- Improper installation or maintenance of the products
- Misuse
- Neglect
- Adjustment by non-authorized sources
- Improper environment
- Excessive or inadequate heating or air conditioning or electrical power failures, surges, or other irregularities
- Equipment, products, or material not manufactured by OFITE
- Firmware or hardware that have been modified or altered by a third party
- Consumable parts (bearings, accessories, etc.)

## Returns and Repairs:

Items being returned must be carefully packaged to prevent damage in shipment and insured against possible damage or loss. OFITE will not be responsible for equipment damaged due to insufficient packaging.

Any non-defective items returned to OFITE within ninety (90) days of invoice are subject to a 15% restocking fee. Items returned must be received by OFITE in original condition for it to be accepted. Reagents and special order items will not be accepted for return or refund.

OFITE employs experienced personnel to service and repair equipment manufactured by us, as well as other companies. To help expedite the repair process, please include a repair form with all equipment sent to OFITE for repair. Be sure to include your name, company name, phone number, email address, detailed description of work to be done, purchase order number, and a shipping address for returning the equipment. All repairs performed as "repair as needed" are subject to the ninety (90) day limited warranty. All "Certified Repairs" are subject to the twelve (12) month limited warranty.

Returns and potential warranty repairs require a Return Material Authorization (RMA) number. An RMA form is available from your sales or service representative.

Please ship all equipment (with the RMA number for returns or warranty repairs) to the following address:

OFI Testing Equipment, Inc.  
Attn: Repair Department  
11302 Steeplecrest Dr.  
Houston, TX 77065  
USA

OFITE also offers competitive service contracts for repairing and/or maintaining your lab equipment, including equipment from other manufacturers. For more information about our technical support and repair services, please contact [techservice@ofite.com](mailto:techservice@ofite.com).