MODEL DP – 04
PAC – POWER

INSTRUCTION MANUAL

PRESTO-TEK CORPORATION

A Newport Electronics Company
2229 South Yale St.
Santa Ana, CA 92704-4426
Tel: (714) 540-5346
(800) 421-8660
Fax: (213) 725-3036

DESCRIPTION

The Model **DP – 04** is a medium range resistivity instrument used to indicate the quantity of total dissolved solids in a water sample. It is non-temperature compensated from **55°F** to **125°F**. This is a portable battery powered instrument using a standard **9** volt transistor battery. A **2000 Hz** oscillator and amplifier provides a balanced **AC** signal to the sensor. The sensor electrodes are mounted in a movable turret for maximum utility. The case and head are molded ABS plastic: and measure overall only 8"x3"x2 ½ ". It weighs a total of 10 ounces. The scale is calibrated in both ohms/cu.inch and ohms/cu,cm.

OPERATION

The following procedure is recommended when performing resistivity measurements with the DP series resistivity meters.

1) Check battery by simultaneously depressing both the test and calibrate buttons. Meter pointer should read at mid-scale in the black band area. If pointer reads low , remove the four corner screws in the back, lift cover and replace battery, If pointer reads high or low with new battery, see instruction manual for instrument calibration or return to Presto-Tek.

2) Rinse probe in distilled or deionized water.

3) Pour solution to be tested into cup. There should be no air bubbles in the cup, and the solution should be within 1/8 inch of the top of the cup. When using the remote probe, place the probe into the solution, being sure the solution covers the bottom 1½ inches of the probe. Stir to remove all air bubbles from the probe. Do not place the probe tip on the bottom of the sample container or against the side of the container when making a measurement.

4) Press the test button and wait eight to ten seconds for temperature stabilization or until a constant reading is attained.

5) After each test, rinse the probe in distilled or deionized water. If this is not done, the electrode surfaces may become coated with deposits left from dried test samples, resulting in inaccurate test results.

6) To clean probes which have become coated, rinse in distilled or deionized water and rub the electrodes with a "Q" tip. If this does not remove the deposits, clean in 10% hydrochloric (HCL) acid for one minute and rinse again with distilled or deionized water using a "Q" tip. Repeat until probe surfaces are shinny bright.

CALIBRATION PROCEDURE

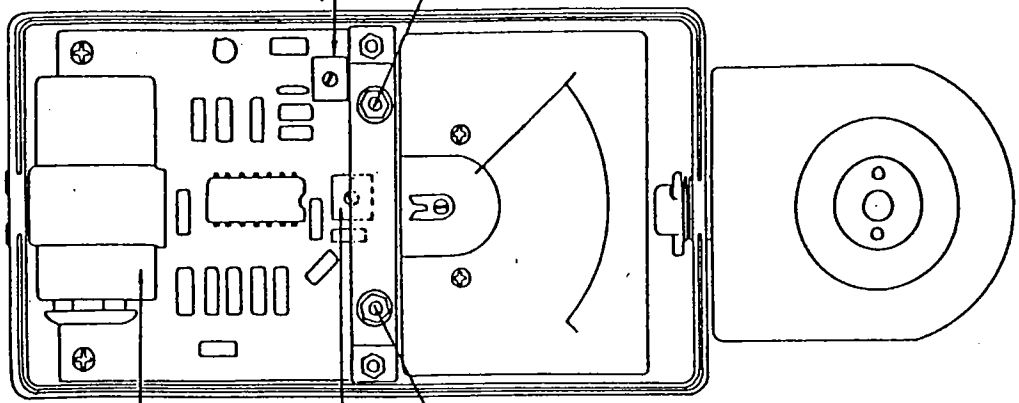
To calibrate the **DP-04**, a standard test solution of **500 ohms/cu. inch** is required; or an accurate resistivity bridge should be available to prepare the test solutions. Since the electrodes and the scale read out are both linear, a single point calibration should be adequate. For maximum accuracy, it is suggested that two or three points on the scale be tested.

Remove the four corner screws in the bottom of the case, then remove cover to provide access to the adjustment potentiometer.

Use a clean plastic cup or a beaker for each test solution. Dip the electrode as shown in mode two on the brochure. There is a potentiometer marked **"Test Adjust"** on figure (1). Push the test switch button only, and adjust for correct meter reading. If more than just one test point is to be checked, repeat this procedure with the second test solution. Be sure to rinse with distilled water between tests.

The final step is the calibration adjustment. Functionally, the calibration test consist of switching a resistor in place of the electrodes. This resistor is equivalent to the resistance of a solution that would read mid-scales. By pressing both the **"Test"** and **"Cal"** buttons, the complete circuit is in operation using the calibrate resistor instead of a test solution. This provides a quick test of both battery voltage and of the electronics. The calibration adjustment , therefore, consist of pressing both buttons and setting the **"Cal Adjust"** potentiometer to provide a mid-scale reading on the meter. Replace cover, and the instrument is ready for service.

60018



PRESTO-TEK CORPORATION

SCALE:	APPROVED BY	DRAWN BY Steve
DATE:		

DP - 04

CALIBRATION DWG FOR MANUAL

DRAWING NUMBER A-173