Digital Meter

Model EPT/LC-200

Measurement Test Instrument

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1- Special information the EPT/LC-200

Model EPT/LC-200 is the first hand- held digital meter to include a number of special features which facilitate corrosion and cathodic protection testing on under ground structure. It is designed for the field testing under almost any environmental conditions. The 3-1/2 digital display is easy to read under both field conditions.

EPT/LC-200 unit is recommended for potential surveys, side drain measurements, surface potential surveys, IR drop measurement, checking both AC and DC circuit of rectifiers, checking for stray or hazardous AC potential.

Checking galvanic anodes. DC current measurement requires the use an optional plug in shunt (0- 20- 200 Amp).

The selectable input resistance feature permits detection of high resistance in the external circuit and elimination of resulting errors in virtually cases.

Specifications:

Display: Liquid Crystal, 3- ½" digit

DC Volt Range: 0-20 mV (.01 resolutions) 0-200 mV (, 1 resolution)
0-2 V (0.01 resolution) 0-200 V (0, 1 resolution)

AC Volt Range: 0- 600 V (1 V resolution)

Resistance: 0- 2000 Ohm (less than +-5%)

DC Current Range: using a shunt 0.001 Ohm shunt for 0-20 A or 0- 200 Amp

AC Rejection: -74 db with an active filter in the input.

DC rejection: 400 volt

Decimal point: Automatic set by range switch

Polarity: Automatic negative symbol displayed, Positive assumed

Input resistance: 20 mv and 200 mv 10 Mega ohm and all other ranges are
Switch from 10- 100- 1000 Mega ohm)

Battery: 6 volt 720 mAh NCD rechargeable

2- Accessories:

1- Battery Charger:
2- Lead Wire
3- Electrode Extension Adapter
4- Manual Instruction

3- Warning:

This unit is very sensitive to the high voltage. For measuring unknown voltage start from high to low range. When you are in Ohm range it must not be connected to the voltage over 20 volts.

4-Getting Started

DC volt: Assemble the meter with the electrode extension adapter and connect the Ground wire to the unit. Turn it ON and put on proper range.

It must be 200 DC. Select the input impedance and it is better to start with 10 Mega Ohm.

Then if you find that the voltage is less than 2 volt you can switch on 2 volt range switch. You can continue for the same to the range 200 MA and 20MA if applicable.

In measurement you must patient and wait the unit com e to a balance. Because of high impedance some time the final digit may fluctuate although

this digit is not important however you can select between high and low final digit readings.

AC Volts: You have to put two rotary switches in the AC position. It may sensitive to the temperature for different area and it may cause some offsets in measurement. If there is offset you must account this offset in the measurement. For example if the Offset is 2 and measurement shows 112 volt AC the real volt is 110 volt (112-2= 110 volt)

Ohm: you have to put two rotary switches in Ohm Position. Temperature also may cause some offsets in the measurement that must account them in the measurement. For example if the offset is 5 and the measurement shows 475 Ohm, the real voltage is 470 Ohm.

Current measurement: you have to put two rotary switches on DC and 20 MA or 200 MA. Then you have to connect the voltage across the shunt between the common and 20 MA for 20 AMP and 200 MA for 200 AMP.

Keep instrument clean and dry. Clean instrument case with soft cloth dampened with kerosene, then wipe dry. Do not use solvents such as lacquer thinners, etc.

5- Battery Charging Instructions:

When the battery is weak the unit shows two indicators:

1- In display shows battery is weak
2- Red led will turn ON

Because of the weak battery may you have some offset in the display. and you have to charge the Battery

Caution: Meter “ON-OFF switch must be in “OFF” position while it is charging Battery. Use only Battery charger provided.

Plug charger in the instrument and Plug AC power cord to the outlet. Charge the Battery for 12 Hours. When the Battery is being charged the battery, a yellow led indicator is on to show the AC power is in the unit.

The Battery is 6 Volt 600 mAh NCD Battery