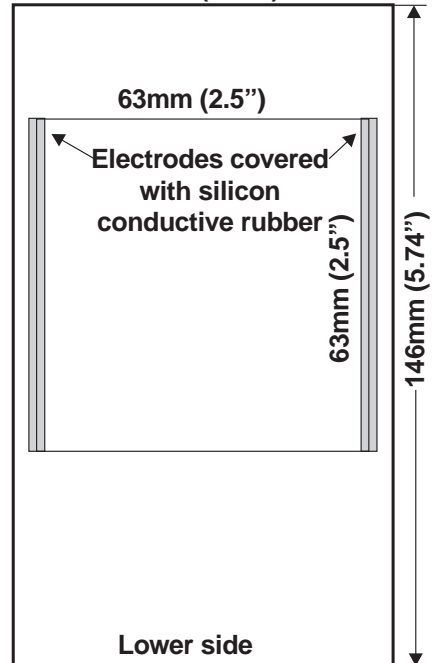
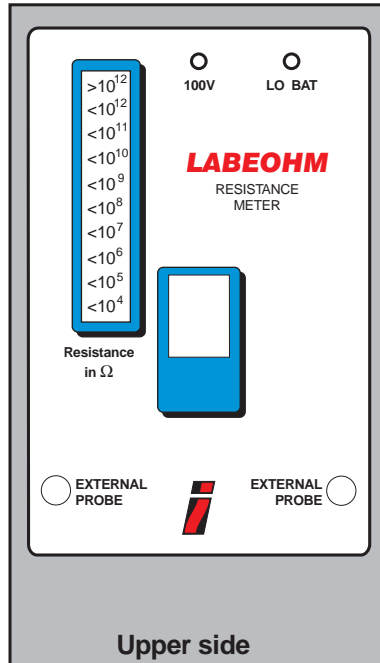


# LABEOHM 100V

LABEOHM is a hand held surface resistance meter for checking the electrical properties of materials. The meter provides approximate surface resistance readings by measuring the resistance between two parallel rubber conductive probes which are the opposite sides of a square (63x63mm). The measure is in  $\Omega$  and it ranges from  $10^4$  to  $>10^{12}$  according the following table:

Lighted Led	Resistance value between probes
$>10^{12}$	$1 \text{ T}\Omega - \infty$
$<10^{12}$	$< 1 \text{ T}\Omega$
$<10^{11}$	$< 100 \text{ G}\Omega$
$<10^{10}$	$< 10 \text{ G}\Omega$
$<10^9$	$< 1 \text{ G}\Omega$
$<10^8$	$< 100 \text{ M}\Omega$
$<10^7$	$< 10 \text{ M}\Omega$
$<10^6$	$< 1 \text{ M}\Omega$
$<10^5$	$< 100 \text{ K}\Omega$
$<10^4$	$< 10 \text{ K}\Omega$



Test voltage is 10V for resistance values  $<10^5$  and 100V for higher resistance values. Accuracy is  $\pm 1$  decade, because the resolution is one decade also (internal setpoint accuracy is  $\pm 20\%$ ). LABEOHM has two jack connectors useful for point to point resistance measurements with two external probe connection as well as resistance to ground measurement with the use of the included cord (useful for working bench ground connection checking). The instrument works with a 9V battery and its dimensions are 31 x 80 x 146 mm. The "LO BAT" led warns for battery replacement.

## OPERATIVE INSTRUCTIONS

To check surface resistance place meter on test surface and apply downward force of approximately 2Kg, hold the red pushbutton pressed for at least 5 seconds to a maximum of 10 seconds in order to get an accurate measure.

- To check resistance to ground:
- 1) Place meter on test surface.
  - 2) Connect cable provided at one of the meter sockets.
  - 3) Connect the free cable to an earth reference point.
  - 4) Continue as per the normal resistivity measurement.

To check point to point resistance, connect two external probes into the meter sockets, press the red pushbutton, hold the red pushbutton pressed for at least 5 seconds to a maximum of 10 seconds in order to get an accurate measure.

**ATTENTION:** DURING GROUND RESISTANCE MEASURING if the earth reference point is faulty or unconnected, indefinite resistivity values may appear.

**IMPORTANT :** if there are devices connected to the mains power supply on the surface under test, and even power cords or other conductors under a.c. voltage, problems on the readings may occur, because 50Hz may cause an interference with the LABEOHM measuring circuit especially when measuring high resistance values. In case of doubt disconnect the mains power supply by opening the main switch.