CLASSROOM METERS -- digital, DC Amps & Volts

Ammeters: LB2122-001 (+/- 0-20A.DC.x 10mA) LB2122-010 (+/- 0-2A.DC.x 1mA)

Voltmeters: LB2123-001 (+/- 0-20V.DC.x 10mV) LB2123-010 (+/- 0-2V.DC.x 1mV)

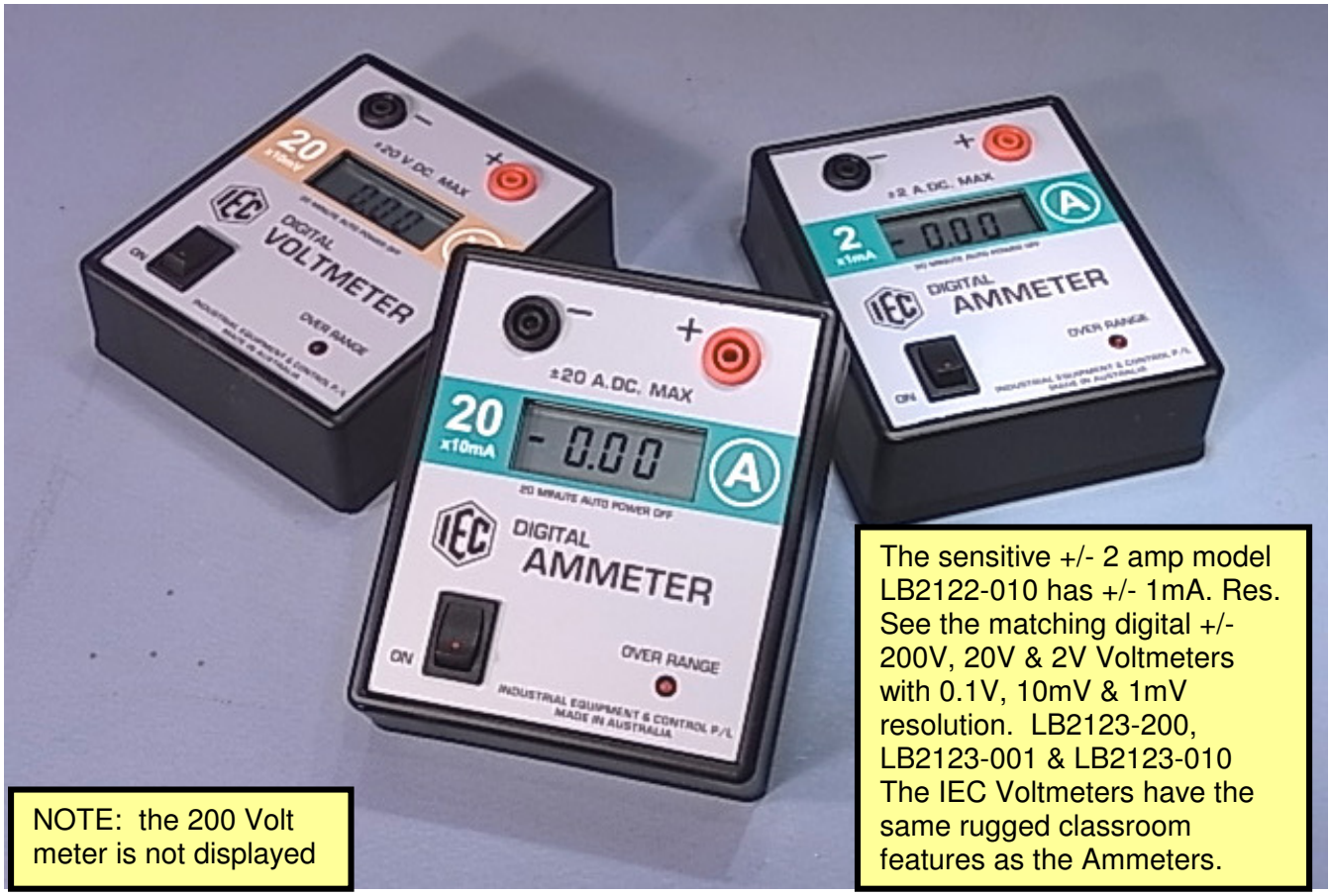
LB2123-200 (+/- 0-200V,DC. x 100mV

GENERAL DESCRIPTION:

This Australian made IEC Digital Ammeters and Voltmeters are accurate, rugged, reliable, and broad range general purpose digital instruments for laboratory or classroom use and are designed electrically to be almost INDESTRUCTABLE in the hands of students.

The single range covers a massive 2,000:1 ratio between lowest to highest reading which would require several analogue meters to cover. There are no ranges to select and polarity can be reversed. Connection by 4mm banana safety sockets is provided so that cables with either safety plugs or normal banana plugs can be used. To conserve battery, the meter features AUTO POWER OFF and pressing ON button provides 20 minute run time. When OFF, pressing button always provides a further 20 minutes ….

LB2123-001 VOLTMETER – Digital, single range to +/- 20V.DC.



NOTE: the 200 Volt meter is not displayed

The sensitive +/- 2 amp model LB2122-010 has +/- 1mA. Res. See the matching digital +/- 200V, 20V & 2V Voltmeters with 0.1V, 10mV & 1mV resolution. LB2123-200, LB2123-001 & LB2123-010 The IEC Voltmeters have the same rugged classroom features as the Ammeters.

Physical: Size: 120 x 100 x 40mm LxWxH **Weight: 0.2 kg**

The meters are designed to take massive overloads without being damaged.

SPECIFICATIONS AND FEATURES:

Meters are colour coded to be identified in the classroom as Amps or Volts from a distance. Voltmeters have a mustard coloured band and Ammeters have a green coloured band. Very large lettering indicating their ranges and resolutions also assist in identification.

Various other types of instruments that IEC is planning to create will have different coloured bands on their front panels.

DISPLAY: Large 3-1/2 digit LCD display reading up to +/- 19.99A or 1.999 Amps or 199.9V, 19.99V or 1.999Volts …… depending on the model chosen

AMMETER SHUNTS: In ammeters, the shunt is designed to carry heavy currents. The microscopic amount of resistance added to the circuit has no measurable effect.

RANGE: +/- 0-19.99 Amps DC. has a RESOLUTION of 0.01 Amps (10 milliamp)

+/- 0-1.999 Amps DC. has a RESOLUTION of 0.001 Amps (1 milliamp)

The Volts DC models operate in the same way with the same ranges …. but in volts.

If connected in reverse, a negative symbol appears on the display.

BATTERY: Std. 9V battery, type 216.

To replace the battery, remove the 2 small screws on the rear panel and slide the panel until the 4 small latches release. Lift out the rear panel.

AUTO OFF: It is very important for the classroom to conserve battery life of the meter.
. When OFF, if the button is pressed, meter is ON for further 20 minutes.

Note: Pressing the button does not ADD 20 minutes to remaining time.

OVER RANGE: If current or voltage exceeds the rated maximum, the small red LED indicates as warning but there will be no damage to the meter itself.

Note to Teachers :::::::::: Their use in the classroom.

It is expected that after the students have been taught the meanings of the electrical units and how to select various units and ranges when using analogue, complicated multi meters and so on, those meters can perhaps be stored away for future use and these tough digitals be used in the classrooms for experiments. Inspecting the students' circuits and connections will no longer be a source of worry and fear because if the students have connected the meters wrongly, it will not cause meter damage. Simply fix the connection error and re-apply power. You will quickly obtain results rather than battling the mysteries of selecting multimeter ranges with the students class after class …….. year after year.

These are the best meters to wire up into experiments and get the correct results every time. They might be double the price of the analogue meters that you buy and then throw away as they are destroyed in students' hands, but they will be found to be excellent value for money because they are almost INDESTRUCTABLE.

Designed and manufactured in Australia