# SIGMA

# **ELECTRICITY LAB TRAINER**

# **MODEL- ELELAB100**

This trainer has been designed with a view to provide practical and experimental knowledge of Electricity technique as practically implemented on a SINGLE P.C.B.

# **SPECIFICATIONS**

# **Features Required:**

Stand alone operation

Durable, Easy to use kit

Include all the Basic Electrical Fundamentals

Solder-less connections

Complete set of coils and cores to understand the basics of Electro magnetic induction arid Transformers

Provided with a component box to perform all the experiments

CBT covering all the experiments

## **Technical Specifications:**

DC Power Supply : 5V, 200mA
AC Power Supply : 6V, 1A
Relay : 5V
Galvanometer : 30 -0 -30

Galvanometer : 30 -0 -30 Galvanometer Resistance : 80 ohms

#### Coils

No. of Turns	Wire Dimension (mm)	Maximum Current (Amp.)	Inductance (approx)
200 Turn	0.818	1.46	590uH
400 Turn	0.573	0.728	2.3mH
800 Turn	0.404	0.363	9.2mH
1600 Turn	0.251	0.144	34.2mH
3200 Turn	0.170	0.072	134mH

fuse : 1 Amp.

Mains Voltage : 220 V AC, <u>+</u> 10%, 50Hz

### **Software Features:**

Computer based tutorial covering all experiments like:

Laws like Ohm's, Kirchoffs Current and Voltage, Faraday's, Lenz's.

Circuit study like Voltage and current in circuit, R-C circuit, L-C circuit.

Characteristics study for transistor, diode.

Many more study and experiments on' Electricity, Electronics and Magnetisms.

# **Sigma Trainers**

E-103, Jai Ambe Nagar, Near Udgam School, Thaltej, AHMEDABAD - 380054. Phone: 079-26852427 / 26767512

Fax : 079-26840290 / 26759661 ISDN : 079-26859162 / 26853758 Email : sales@sigmatrainers.com : sigmatrainers@sify.com

Web: www.sigmatrainers.com

**Dealer:-**

# **Training System should include:**

Component box with resistors, capacitors, transistors, diode, potentiometer.

E, I, U cores, set of coils, magnetic compass, bar magnets

Screw driver, multi-meter, connection patch cords

# Training System is able to perform following experiments:

Resistnace individual, series and parallel connections.

Ohms law

Kirchoff's law

RC circuits

LC circuits

Characteristics of semiconductor diode, transistor

Faradays law

Lenz's law and effect of eddy current.

Relay and switching circuit

Oersted experiment

Step up/down transformer.

Effect of moving core on step up transformer.