



55846 Experimental Set Up has been designed specifically to determine Mutual Inductance of a pair of coils by direct deflection method using Ballistic Galvanometer. The set up is absolutely self contained and requires no other apparatus.

Practical experience on this set up carries great educative value for Science and Engineering Students.

#### OBJECT

- 01 To determine the Mutual Inductance of a pair of coils by direct deflection method using Ballistic Galvanometer.

#### FEATURES

The Set up consists of the following :

- 01 BALLISTIC GALVANOMETER : It consists of moving coil having a fairly large periodic time and large moment of inertia. The phosphor bronze suspension strip prevents shifting of zero. Its deflection is closely proportional to current. The resistance of coil is about 500Ω and gives sensitivity per microcoulomb at one meter distance of about 600 mm.
- 02 LAMP AND SCALE : Lamp is of cast aluminum with heavy iron adjustable stand. It is fitted with 8 volt electric bulb through built in transformer and works on 220V A.C. Translucent perspex scale graduated in 25-0-25 cm is used.
- 03 BATTERY ELIMINATOR : 0-1V/10mA.
- 04 DIGITAL STOP CLOCK : with START/STOP operation by means of toggle switch & RESET by a push button switch. It has a range of 999.9 seconds with resolution of 0.1 seconds and accuracy of  $\pm 0.01\%$  (Quartz controlled). Display is through 4 no's of 12.5mm bright Seven Segment Displays and working voltage of the unit is  $230V \pm 10\%$  50Hz.
- 05 A fixed mutual inductor (50 mH) OMEGA TYPE M-505K.
- 06 Two Fixed Resistance 0.1ohms & 0.2 ohms 1 Watt.
- 07 Reversing Key.
- 08 Tapping key.
- 09 Adequate no. of connecting wires, 100cm long.
- 10 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

Note: Specifications are subject to change.

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