



Experimental Training Board has been designed specifically to study LCR Circuits with an A.C. Source. The board is absolutely self contained and requires no other apparatus.

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

**Object:**

01. To determine the equivalent power loss resistance of an inductor.
02. To analyse a complex LR circuit by drawing vector diagrams.
03. To analyse a complex RC circuit.
04. To study a circuit with two inductors in series.
05. To study a circuit with two capacitors in series.
06. To study if  $V_L$  and  $V_C$  are always in the opposite phase. i.e.
07. To study the impedance of an LCR circuit.
08. To study the phase relationship in a series LCR circuit.
09. To study the Q of a series LCR resonant circuit.

**Features:**

The board consists of the following built-in parts :

01. Transformer having secondary windings of 10V, 20V, 30V, 40V, 50V and 100V A.C. at 100mA.
02. Digital AC Voltmeter 3½ Digit Dual range 20V/200V to read AC Voltages
03. Adequate no. of other electronic components.
04. Mains ON/OFF switch, Fuse and Jewel light.
  - The unit is operative on 230V  $\pm$ 10% at 50Hz A.C. Mains.
  - Adequate no. of patch cords stackable from rear both ends 4mm spring loaded plug length ½ metre.
  - Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections / observation of waveforms.
  - Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

**Other Apparatus Required (optional):**

- Audio Frequency Oscillator with Power Amplifier

Note: Specifications are subject to change.

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