

# A.C. Theory Kit

## For More Advanced AC Experiments



**EM0060-001**

### Description:

The IEC A.C.Theory Kit contains all the components necessary to perform a range of experiments for the teaching of A.C. electrical theory. The kit contains an accurate digital signal source to permit the student to study the effects of frequency on impedance and resonance. This 10 volt peak to peak signal source can provide all the current required for the experiments and is effectively the complete power source.

Inductors are mounted in strong plastic bases and capacitors, resistors and switch are mounted in strong transparent plastic housings so that each is easily visible to help students recognise devices. The kit comes complete with a set of connecting cables with good quality 4mm banana plugs moulded to the cables. Two centre-zero meters are provided for 'dynamic' study of current and voltages. The digital multi-meter provided is for both AC and DC volts and amps and includes capacitance measurement.

Length: 490mm

Width: 420mm

Height: 170mm

Weight: 8.4kg

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**Kit Contents:**

- 1 Digital signal source: LB3753 Mini-Wave Signal Generator  
Input: 220/240V.AC.  
Output: 0.1Hz to 100kHz crystal locked.  
Variable output voltage from 0 to 15V.p/p, output current up to 1 amps  
Selectable waveforms: Sine, Square, Triangle or Sawtooth.
- 2 Inductors, each 2 Henry
- 1 Capacitor, 10,000 uF in housing
- 2 Capacitors, each 5uF, in one housing
- 1 Resistor, 25 ohms, 550mA, in housing
- 1 Resistor, 500 ohm, 60mA, in housing
- 1 Switch, single pole, two way, in housing
- 1 Bench meter, centre zero, 300-0-300mA
- 1 Bench meter, centre zero, 10-0-10V
- 1 Meter, digital, AC & DC multi range
- AC & DC volts and amps, ohms and capacitance
- 1 Set of 10 cables with moulded-on
- 4mm banana plugs both ends
- 1 Experiment booklet.

**Experiments include:**

Measuring resistance, reactance and impedance, relating reactance to frequency, demonstrating lagging and leading currents in inductors and capacitors, series and parallel inductors and capacitors, resonance of series and parallel connections, power factor... and more.

Designed and manufactured in Australia