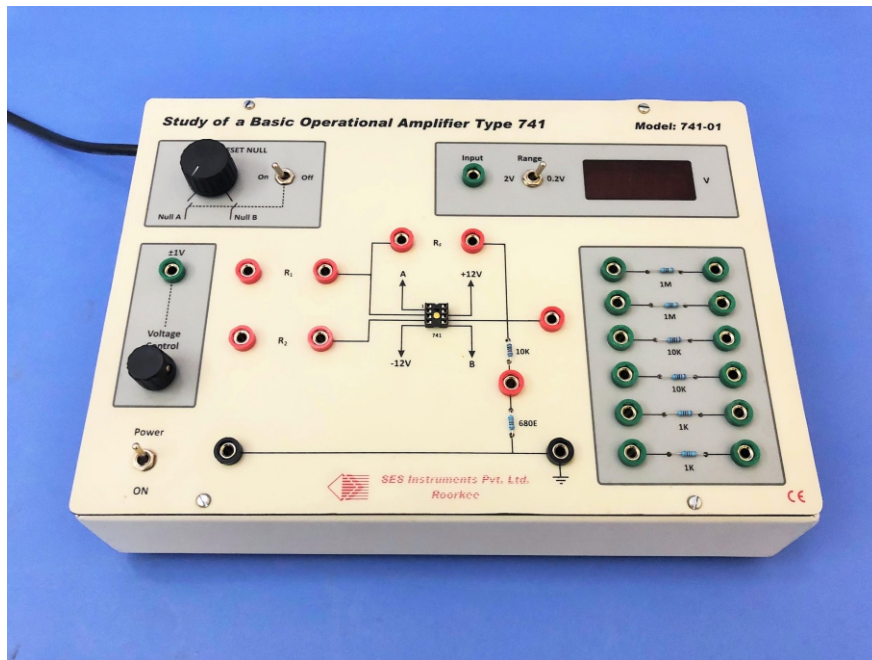


741-01

Study of Basic Operational Amplifier



Features

- Working of the basic circuit
- Measurement of bias currents, offset currents and offset voltage
- Study of inverting and non-inverting amplifier configurations
- Introduction to amplifier drift
- Measurement of CMRR and slew rate
- Study of frequency response (band width)
- Built-in power supply

Introduction

The term operational amplifier (Op. Amp.) refers to high gain dc amplifier that has a differential input (two input leads) and a single ended output (one output lead). Op. Amps. have characteristics such as high input resistance, low output resistance, high gain, low drift etc., that make them highly suitable for many applications and therefore, wide spread use in electronic circuits.

The experimental set-up on the study of Op. Amp. consists of a 741 IC with facilities for convenient connections, two regulated power supplies ($\pm 12V$), a variable voltage source and a multirange digital voltmeter with $3\frac{1}{2}$ digit LED display.

The resistances (0.1% metal film) required are mounted on the board separately, which may be connected as required through patch chords. The student can also connect external components, if required.

The set-up is complete in all respect, but a A.F. oscillator would be required for frequency response.

