



**OMEGA TYPE EM-30** has been designed to Measure "e/m" by Bar Magnet Method. This is a versatile but simple apparatus to measure the value of e/m experimentally. The unit employs Thomson's method and hence the working is simple.

#### FEATURES

The apparatus consists of the following

- 01 Cathode Ray Tube.
- 02 High Voltage Power supply for C.R.T. and D.C. Volts for deflection of Electron Beam.
- 03 Voltmeter to Read Voltage.
- 04 Three Wooden stands.
- 05 Magnetometer.
- 06 Bar Magnets and Centimeter Scales.
- 07 Power Requirement : 230V  $\pm$  10% at 50 Hz A.C. Mains.
- 08 Strongly supported by detailed Operating Instructions.
- 09 Weight : 9 Kg. (Approx.)
- 10 Dimension : W290xH160xD230
- 11 Tube is mounted on a wooden stand which has a groove cut at its bottom to fit into another stand with platform for placing two bar magnets. The third wooden stand provides a platform for magnetometer for measuring the magnetic field along with the axis of the Cathode Ray Tube.

- 12 The deflection can be measured with sufficient accuracy on the perper centimeter scale provided with the Cathode Ray Tube.
- 13 The Magnetic Field required for Magnetic Deflection of the Electro Beam is produced by two bar magnets.

#### CATHODE RAY TUBE CHARACTERISTICS

- |                          |                       |
|--------------------------|-----------------------|
| 01 Cathode               | : Unipotential oxide  |
| 02 Heater Voltage        | : 6.3 Volts AC or DC  |
| 03 Heater Current        | : 0.6 $\pm$ 0.06 Amp. |
| 04 Focusing Method       | : Electrostatic       |
| 05 Deflection Method     | : Electrostatic       |
| 06 Phosphor Fluorescence | : Green               |
| 07 Persistence           | : Medium              |

#### CAUTION

- 01 The breaking of the Cathode Ray Tube may cause explosion and result in personal injury from flying glass particles. Utmost care should, therefore, be taken when handling the tube.
- 02 Dangerous potentials as high as 1000V are employed in the power supply unit. They should be treated with proper care.

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

## OMEGA ELECTRONICS

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