

## Basic Electrostatics System



**Purpose:** Demonstrate quantitatively most aspects of electrostatics.

This is a nice system, but fairly complicated. It includes an electrometer which, when used in conjunction with the Faraday bucket and proof planes, provides a quantitative measure of charge. With it, you can demonstrate polarization, aspects of capacitance, etc... For detailed information *you need to know*, consult the manuals. (There is a hard copy with the equipment too.)

Warning, this demo is tricky (like any other electrostatics demo), the electrometer is very sensitive so weather and environment can really be a problem. The electrometer dial is tiny, however it interfaces to our DataStudio Laptop – so it can be projected up on the lecture-room screens.

## **Manuals:**

General manual with demo suggestions:  
Complete electrostatics system

Manuals for individual equipment:

Electrometer

Proof planes

HV supply

Conductive spheres

Variable-plate capacitor

**Extra Equipment:** Camera or DataStudio Laptop for projecting the electrometer.

**Location:** Shelf E3