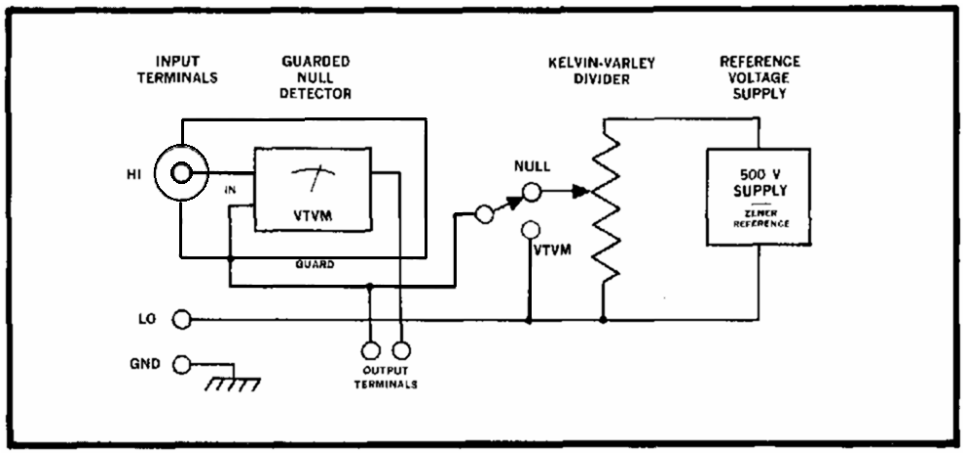
Keithley 660A - Differential Voltmeter

The Keithley 660A is a differential voltmeter which can be used as potentiometer or as VTVM.

As potentiometer it can measure from 100 microvolts full scale to 500 volts, with an error lower than 0.02% in the ranges from 100 mV up. As VTVM it reads from 1 mV to 500 V with 3% accuracy and resistances up to 100.000 megahoms.

Input resistance depends upon the selected range, being 50 Mohms from 0.1 V full scale, and raises to infinity at the null. The meter includes a 500 VDC precision voltage reference, the Kelvin-Varley divider and the chopper stabilized null detector. Below a simplified block diagram. The unknown voltage is compared for null against the voltage generated by a 500V reference supply and a Kelvin-Varley divider.



Here is the full manual.