



WORLD
PRECISION
INSTRUMENTS
Instrumenting scientific ideas

EVOM²

Epithelial Volt Ohm Meter

- **Manual TEER measurements of epithelial cells in 6-, 12-, and 24-well plates**
- **Electrically isolated meter that plugs into a standard outlet for continual readout without push buttons**
- **Compatible with Endohm chambers**
- **STX2 manual electrodes and test electrode included with every meter**
- **Free standing with tilt bail, making viewing results easy**
- **Standard analog BNC output port**

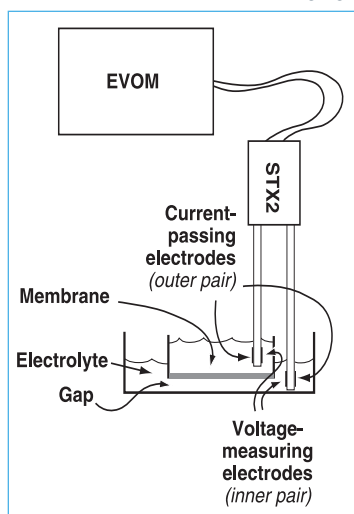


The EVOM was the first instrument designed specifically to perform routine Trans Epithelial Electrical Resistance (TEER) measurement in tissue culture research. **EVOM²** is the next generation, redesigned for ease of use. The **EVOM²** not only qualitatively measures cell monolayer health, but also quantitatively measures cellular confluence. The unique electronic circuit of the **EVOM²** and the included **STX2** electrode detect the confluence of the cellular monolayer. When combined with WPI's Endohm chamber, the **EVOM²** can also be used to perform more accurate quantitative measurements or lower resistance measurements like transendothelial electrical resistance measurements.

The isolated power source of the **EVOM²** was specifically designed to avoid adverse effects on tissue and the formation of electrode metal deposits, even when it is plugged into a standard wall outlet. Now, the **EVOM²**

is always on when you need it. In addition, its rechargeable battery allows up to 10 hours of mobile use. The four and a half digit readout provides a range of 1-9,999 Ω . The included test electrode lets you calibrate the resistance measurements for an accurate reading every time, and the voltage meter never needs calibration. An analog BNC output is standard with the **EVOM²**, providing an output port for recording data or remote display of the **EVOM²** output.

EVOM² comes complete with the popular **STX2** "chopstick" electrodes, 4 mm wide and 1mm thick. Each stick of the electrode pair contains a silver/silver-chloride pellet for measuring voltage and a silver electrode for passing current. The small size of each electrode is designed to facilitate placement of the electrodes into a variety of standard cell culture wells.



EVOM²

Epithelial Volt Ohm Meter

Trans Epithelial Electric Resistance (TEER) Measurements

During the last two decades TEER measurements have become universally established as the most convenient, reliable and non-destructive method to evaluate and monitor the growth of epithelial tissue cultures *in vitro*. The confluence of the cellular

monolayer is quickly determined by a sharp increase in TEER. First introduced by WPI in the mid-1980's, TEER measurement technology has since been perfected and expanded to include a range of TEER related manual and automatic instrumentation.

Features

Rechargeable Battery — EVOM², which plugs into a standard wall outlet, comes with an internal NiMH 6V 2200 mAH rechargeable battery backup. The battery charges whenever the unit is plugged in. If the battery runs low, the EVOM² automatically shuts down.

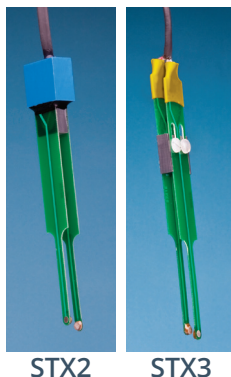
Tilt Bail — EVOM² is free standing, making it easier to read.

4½-Digit Display — The range of 1-9,999 eliminates the need for a Range toggle switch.

Analog Output — BNC connection provides a port for recording or remote display of the EVOM² output.

Test Resistor — Testing the measuring circuit and the input jack is as simple as inserting the 1,000Ω test resistor (included) and observing the display.

Hands-Free Operation — When the power is on, EVOM² displays a readout. You never have to push a button to see the reading.



SPECIFICATIONS

MEMBRANE VOLTAGE RANGE	±200 mV
RESOLUTION	0.1 mV
RESISTANCE RANGE	0 to 9999 Ω
RESISTANCE RESOLUTION	1 Ω
AC SQUARE WAVE CURRENT	±10 μA nominal at 12.5 Hz
POWER	Internal rechargeable 6V NiMH 2700 mAH battery with external 12 VDC supply for recharging
NOMINAL BATTERY RUN TIME	10 hours
BNC OUTPUT	1-10 V (1 mV/ohm)
DIMENSIONS	19 x 11 x 6 cm (7.25" x 4.25" x 2.30")
WEIGHT	1.4 kg (3 lb)
ELECTRODE CONNECTION	RJ-11 connector (telephone style)
TEST RESISTOR	External, 1000 Ω
ENVIRONMENTAL RANGE	10-38°C (50-100°F) 0-90% non-condensing relative humidity



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