



# EVOM™ MANUAL

Leading the Market with our EVOM Technology



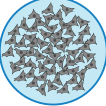
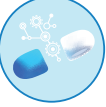
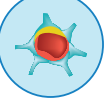

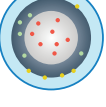

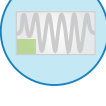
# TEER Measurement with Auto Data Logging

## INTRODUCING THE EVOM™ MANUAL

WPI's EVOM™ Manual is the gold standard for delivering stable and repeatable Trans Epithelial Electrical Resistance (TEER) measurements. The EVOM™ Manual qualitatively measures cell monolayer health and quantitatively measures cell confluence by determining an increase or a plateau in tissue resistance detected using our innovative EVOM™ technology. The EVOM™ Manual produces a low AC current that avoids electrode metal deposits and is specially designed for the non-destructive testing of epithelial monolayer confluence in cell cultures. Additionally, resistance readings are unaffected by membrane capacitance or membrane voltage. WPI's state of the art EVOM™ technology provides you with real time valuable feedback during experiment measurements. The accuracy and repeatability of the EVOM™ Manual system makes this instrument ideal for permeability, potential difference (PD) and other detailed membrane studies. Data may be saved to a flash drive or to a PC via secure data transfer using the EVOM™ Companion Application.

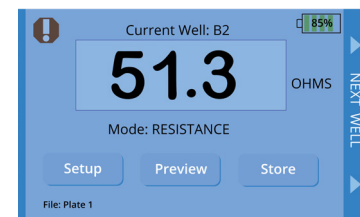
“  
*The Gold Standard:  
 WPI's EVOM™ TEER  
 technology has been  
 noted in over 16,000  
 published,  
 peer-reviewed  
 research papers.*  
 ”

### APPLICATIONS

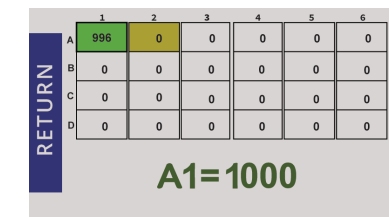
-  Confluence of Monolayer
-  Drug Discovery
-  Blood Brain Barrier (BBB)
-  Epithelial or Endothelial Barrier
-  Intestinal Drug Absorption: Caco-2  
3-D Tissue Function
-  Permeability or Transport of Ions or Drugs
-  Lung *In Vitro* Models for COVID Study
-  Organ-on-a-Chip



EVM-MT-03-02



The main EVOM™ Manual screen displays information and lets you make measurements.



The preview screens, like this 24-well preview, gives a quick visual of the plate you are measuring.




The EVOM™ Manual with the new STX4 electrode simplifies TEER measurement.

### SPECIFICATIONS

Tissue Sampling Frequency	12.5 Hz	Current Levels	10K $\Omega$ $\pm$ 10 $\mu$ A, 50K $\Omega$ $\pm$ 4 $\mu$ A, 100K $\Omega$ $\pm$ 2 $\mu$ A
Sample Averaging	20 samples per second	Display Update Rate	0.5 seconds
Resistance Ranges	• 0 to 10,000 $\Omega$ • 0 to 50,000 $\Omega$ • 0 to 100,000 $\Omega$ +5%	Battery	3.7V Li-ion 2500mAh
Auto Mode	1 to 100,000 $\Omega$ auto current 2 $\mu$ A, 4 $\mu$ A, 10 $\mu$ A	Charging Period	5.5 hrs (power off); 8 hrs run time
Resistance Resolution	0.1 $\Omega$ (under 200 $\Omega$ ); 1 $\Omega$ (over 200 $\Omega$ )	Charge Current	200 mA
Resistance Accuracy	• 0.1 $\Omega$ (under 200 $\Omega$ ), 1 $\Omega$ (over 200 $\Omega$ ) 0.1% • 100,000 $\Omega$ $\pm$ 2 $\mu$ A (to 105 K $\Omega$ )	Power Consumption	-250 mA
Voltage Resolution	0.001 V, 0.1 mV	Certifications	CE
Voltage Accuracy	$\pm$ 0.1 mV	Data Logging	Continuous via USB (PC, Mac, Linux) or Secure Data Transfer via EVOM™ Companion Application
		Compatibility	6, 12, 24, 96 Well plate electrodes: ENDOHM, STX4, STX HTS*

\*Use a matching electrode for accurate measurements.


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**ELIMINATES ERRORS AND REDUCES EXPERIMENTAL PROCESSING TIME**
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**AUTO DATA LOGGING ELIMINATES THE NEED TO TRACK DATA BY HAND**
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**THE SMALL FOOTPRINT ALLOWS MORE BENCH SPACE**
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**EASY CALIBRATION AND VERIFICATION**
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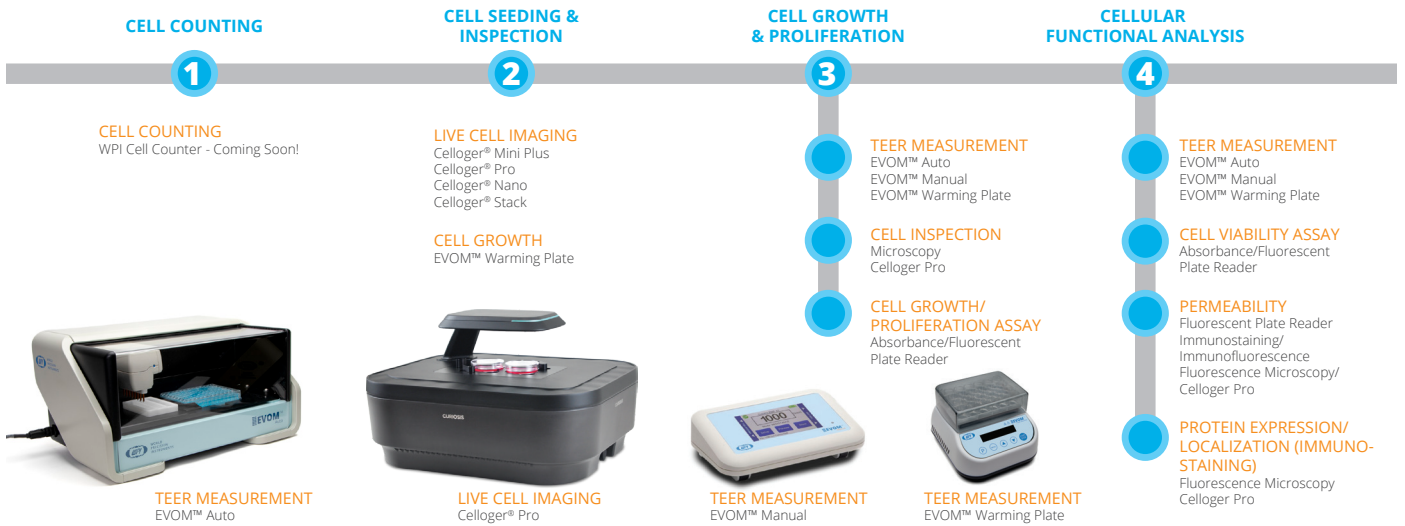
**FOOTSWITCH FOR HANDS-FREE RECORDING**
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**PREVENT DATA LOSS WITH AUTO SAVE AND DATA RECOVERY WHEN BATTERY IS LOW**
- 

**LOW NOISE DESIGN OFFERS GREATER RESOLUTION AND ACCURACY**



# WPI Offers Solutions for All Your Cell Growth & Analysis Needs



## Electrode Options



EVM-EL-03-03-01

### STX4 with Replaceable Blades

- Easy insertion into many 24-well plates
- Hands-free stable measurements
- Ideal for 24-well plate removable inserts
- Cable blocks electrical and cellular interference
- Consistent results and no need for multiple readings
- Greater measurement precision than older model chopstick electrodes (STX2/STX3)
- Low media volume
- Longer life with replaceable blades
- No chloriding necessary (coated tips)



EVM-EL-03-02-xx

### STX HTS

- Smaller tip size than the STX4 electrode
- Available for 24 and 96 high throughput screening transwell plates
- Constructed for durability
- Fits neatly into the keyhole-shaped filter well
- Electrode design reduces chance of contamination



EVM-EL-03-01-xx

### ENDOHM

- Stability and reproducibility superior to the STX4 electrode to 1% tolerance
- Can be used with 6, 12 or 24-well plates with removable inserts
- Symmetrical electrode pattern disperses test current uniformly

## EVOM™ Warming Plate



EVM-AC-03-03

Instead of just monitoring temperature, you can take measurements with confidence and keep your samples at a constant 37°C when you work with plates outside the incubator.

- Maintain sample temperature outside the incubator
- Fast temperature equilibration/ stabilization for TEER measurement
- Eliminate the effects of temperature fluctuations on TEER readings
- Heat a sample well plate from room temperature to 37°C in less than 12 minutes