



Gemini SC Twin Wave Electroporator

The Gemini SC Twin Wave Electroporator stands out as a versatile instrument, seamlessly integrating both square wave and exponential decay wave electroporation capabilities within a single device. Notably, prokaryotic cells exhibit optimal responsiveness to exponential decay wave pulses, while eukaryotic cells demonstrate heightened transfection efficiency with square wave pulses. The consolidation of these two distinct waveforms within a singular instrument empowers researchers with complete flexibility, allowing them to tailor their approach for maximum efficiency across a spectrum of applications.

Gemini SC

The Gemini SC is specifically designed for cuvette-based *in vitro* transfections, catering to both eukaryotic and prokaryotic cells in suspension. Characterized by its expansive array of pulsing parameters, advanced safety features, and a multitude of preset protocols, the Gemini SC emerges as the optimal choice for laboratories seeking efficient cell transfection or transformation, all achieved without the necessity for expensive reagents. distinct waveforms within a singular instrument empowers researchers with complete flexibility, allowing them to tailor their approach for maximum efficiency across a spectrum of applications.

Key Features

- Square wave and exponential decay wave electroporation in a single unit
- Large, easy-to-use touch screen interface
- Universal electroporation – transfects cells *in vitro*, *in vivo* and *in ovo*
- Preset protocols for the most common eukaryotic and prokaryotic cell types and the ability to add and modify protocols
- Safety – displays resistance measurements for each pulse with three layers of arc protection

Applications

- CRISPR transfections
- Suspension cells and adherent cells
- Transfection of eukaryotic cells and transformation of prokaryotic cells
- *In vivo*, *in ovo*, and *in utero* gene and drug delivery
- Tissue explants



Specifications

	Gemini SC
Voltage Range	LV Mode: 10 to 500 V in 5 V steps HV Mode: 510 to 3000 in 10 V steps
Capacitance (Exponential Decay Wave)	LV Mode: 25 to 3275 μ F in 25 μ F steps HV Mode: 10, 25, 50 μ F
Resistance (Exponential Decay Wave)	All Modes: 50 to 1000 Ω in 50 Ω steps
Maximum Time Constant (Exponential Decay Wave)	3 s at 500 V peak 133 ms at 3,000 V peak
Pulse Length Range w(Square Wave)	LV Mode: 0.05 to 10 ms in 0.05 ms steps LV Mode 10 to 100 ms in 1 ms steps HV Mode: 50 μ s to 5 ms in 50 μ s steps
Operational Status	Internal self-test upon start-up
Interface	7 in. color touchscreen
Input	100 to 240 VAC
Charge Time	LV mode <7 s, HV mode <4 s
Programmability	Store over 1000 protocols
Safety	Pre-pulse sample resistance check, pulse over current protection, instrument arc control

Ordering Info

Item No.	Description	Included Items
45-2042	Gemini SC Electroporation System	Gemini SC Generator, Safety Dome, Cuvettes 1 mm, 2 mm, 4 mm, pkg. 30 (10 each), and Cuvette Rack 660
45-2043	Gemini SC Electroporation Generator Only	Gemini SC Electroporation Generator Only



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