About

Scalability, efficiency and versatility are key advantages the system offers researchers. Thanks to the HT-200 High-Throughput Plate Handler, the Gemini X2 can simultaneously place 96 distinct DNA/RNA constructs inside a variety of organisms — and do it in under 20 seconds.

Using electrical pulses to create transient gaps in cell walls and move nucleic acids inside, the system can generate both exponential decay and square wave forms, with a wide range of options for voltage and pulse length. As a result, users have the flexibility to work on microbes such as bacteria and yeast, as well as mammalian cells and tissues, in vivo, in vitro and with CRISPR gene-editing experiments.

The 96-well plate handler has automated track switching and is compatible with every type of buffer. Importantly, the system matches advanced features with a user-friendly interface on a large color touchscreen. Remote operation is possible with a footswitch or via PC. Internal log storage of experimental data simplifies optimization, quality control and troubleshooting. And safety features include pre-pulse resistance measurement and three layers of arc protection.

Detailed Specifications

- **For Use With (Equipment):** Cuvette Safety Dome, Cuvette Safety Stand, HT-100 High-Throughput Electroporation Plate Handler, HT-200 Automatic High-Throughput Electroporation Plate Handler, BTX Specialty in-Vivo Electrodes
- **Product Line:** BTX Electroporation
- **Voltage:** 5 to 3000 V
- **Voltage Range (LV Mode):** 5 to 500 V (in 1 V steps)
- **Display:** Color Touchscreen
- **Depth (English):** 13 in
- **Height (English):** 8.5 in
- **Includes:** Generator, Safety Dome, Cuvettes, Cuvette Rack, Plate Handler, Gap Plates
- **Operating Temperature (English):** 40°F to 104°F
- **Pulse Length Range:** Exponential Decay Wave Time constant 0.5 ms to 133.875 ms; Square

Wave pulse length 10 ms to 999 ms

- **Relative Humidity:** 80% max. when operating at 25°C
- **Weight (English):** 16 lb.
- **Width (English):** 11.25 in.
- **Electrical Requirements:** 100 to 240 VAC
- **Capacitance (HV Mode):** 85 µF (Square Wave), 10, 25, 35, 50, 60, 75, 85 µF (Exponential Decay Wave)
- **Connection Type:** Banana Cables
- **Interface:** Touchscreen
- **High-throughput Compatibility:** Yes