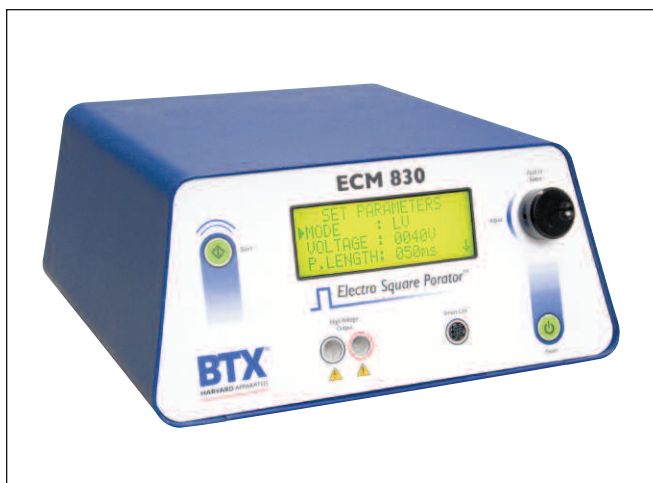


ECM[®] 830

Square Wave Electroporation System



- Transformation of Bacteria and Yeast
- Transfection of Mammalian Cells
- Transfection of Plant Tissue and Protoplast
- High Throughput 96 and 25 well Electroporation Capabilities

The ECM 830 is a Square Wave Electroporation System designed for In Vitro and In Vivo electroporation applications. BTX square wave technology offers the researcher the ability to transfect cells efficiently with higher cell viabilities. The versatility of the ECM 830 applications includes mammalian and plant cell transfections, embryo manipulation, nuclear transfer, and bacterial and yeast transformations. The ECM 830 possesses key features including a wide range of voltages from 5 to 3000 volts, finer voltage discrimination, pulse durations from 10 μ sec to 10 sec, user control of pulse intervals, Arc Quenching™, digital display of actual voltage and pulse length delivered. It is a true laboratory work-horse with a 2-year warranty. The ECM 830 can be used in combination with a host of BTX specialty electrodes and accessories to enhance your molecular and drug delivery in In Vivo and Ex Vivo experiments see pages 366 to 372.

Multi-Well Electroporation

The High Throughput (HT) 96 & 25 well systems offer the researcher the advantage of multi-well technology. This permits a large number of samples to be run quickly allowing easy optimization using the BTX ECM 830 generator. See page 361 for more details.

Monitoring Option

The ENHANCER 3000 allows monitoring and tracking of key electrical parameters used in electroporation. Parameters can be downloaded to a computer easily using the USB port to store data and download to a computer or printer for documentation, see page 362 for more details.

Specifications

Operational Status	Internal self test upon start-up
Interface	Digital User Interface
Input	110 V/220 V Universal
Charge Time	5 sec maximum (without delay)
Voltage Range	5 – 500 V LV Mode/ 1 V resolution 505 – 3000 V HV Mode/ 5 V resolution
Pulse Length Range	10 μ s – 999 μ s LV Mode/ 1 μ s resolution 1 msec – 999 msec LV Mode/ 1 msec resolution 1 sec – 10 sec LV Mode/ 0.1 sec resolution 10 μ s – 600 μ s HV Mode/ 1 μ s resolution
Voltage	dependent/internally controlled
Multiple Pulsing	1 – 99
Pulse Interval	100 msec – 10 sec
Programmability	Storage for 3 protocol setups (V,t,n,interval)
Arc Control	Arc Quenching™
Safety	Generator short circuit proof
Capacitance	4000 μ F LV, 111 μ F HV
Amperage	500 A limit at 100 μ s
Remote Operation	Footswitch available. Please contact BTX Technical Services at 1-800-272-2775 or techsupport.btx@harvardapparatus.com for assistance.

Order #	Model	Product
W3 45-0002	ECM 830	Electroporation System includes, ECM 830 Generator, 630B Safety Stand, Cuvettes 1 mm, 2 mm, 4 mm pkg. of 30 (10 each) and Cuvette Rack 660
W3 45-0052	ECM 830	Generator Only
W3 45-0421	HT 96/200	Includes ECM 830 Generator, 2 x 96-Well Plates (4 mm), Plate Seals and HT-200 Plate Handler
W3 45-0411	HT 25/200	Includes ECM 830 Generator, 6 x 25-Well Plates (4 mm), Plate Seals and HT-200 Plate Handler
W3 45-0061	ECM 830/ ECM 630	Combination Package includes ECM 830 Generator, ECM 630 Generator, 2 x Safety Stands, Sample Package of Cuvettes and Cuvette Rack
W3 45-0060	ECM 830/ ECM 399	Combination Package includes ECM 830 Generator, ECM 399 Generator, Safety Stand, PEP, Sample Package of Cuvettes and Cuvette Rack
W3 45-0072	ECM 830/ ENHANCER 3000 System	ENHANCER 3000 Probe, ENHANCER Interface Box, Oscilloscope, Communications Module, ECM 830 Generator, Safety Stand, 30 Cuvettes (10 each 1 mm, 2 mm and 4 mm) and Cables