



a division of Harvard Bioscience, Inc.

# ECM 830 Square Wave Electroporation System

## Quick Start Guide



Download full user's manual at: [www.btxonline.com](http://www.btxonline.com)

### Unpacking the System

The shipping carton in which your ECM 830 Electroporation System is packed has been specifically designed to provide maximum protection to the instrument during transportation and normal handling conditions. Upon receipt, the carton should be examined for any external damage resulting from shipment.

Open the carton and carefully remove the ECM 830 system and inspect the unit for any apparent damage. Save the carton and packing materials for future transportation and shipping requirements.

### Packing Data

Check the packing slip to ensure that all items ordered and listed are included in the shipment. Inform BTX immediately if any parts are missing or damaged.

### Power Source

The unit should be attached to a power source capable of supplying: voltage from 100-240 VAC, 50/60 Hz, and 350 Watts.

In the USA, the unit is supplied with a standard three prong plug.

### Installation

Once you have determined that the components of the system have not sustained any obvious damage in shipment, proceed with the installation.

Remove the insulating tab from the battery at the base of the unit.

Place the generator in a location that is a dry, level, sturdy surface free from extremes in ambient temperature, dust, or chemical exposures. Allow the device to equilibrate to room temperature.

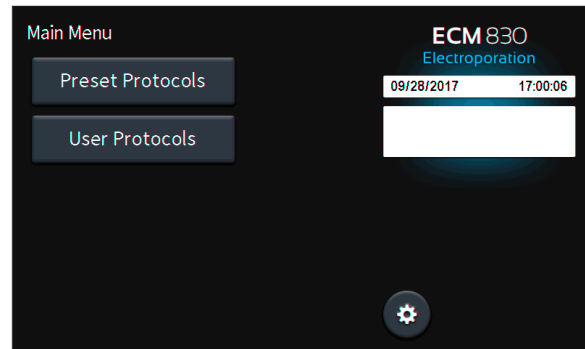
Unpack the safety dome, cuvette rack, and disposable cuvette chambers. Connect the safety dome, specialty electrodes, or HT plate handler into the connectors at the bottom right-hand side of front panel.

Connect the mains/power cord to into the back panel at the bottom left.

Power up the system by pushing the rocker switch located on the back panel at the bottom left. The display will flash the BTX logo. Once the software initializes, the Main Menu screen will appear.

You are now ready to begin your work.

### Main Menu



Preset Protocols

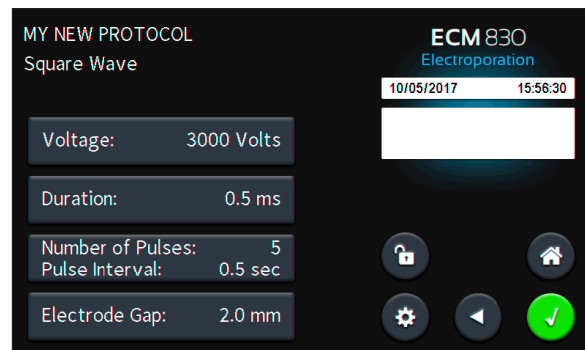
Protocols with preset parameters for common cell and tissue types.

*Cannot be modified by user, however Preset protocols may be copied to User Protocols for modification.*

User Protocols

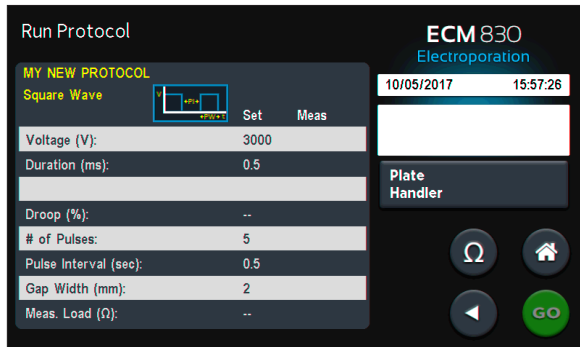
Protocols may be copied from Preset Protocols or created from scratch by the user for later use.

### User Protocol Review Screen



Voltage, Duration, Number of Pulses, Pulse Interval, and Electrode Gap may be modified by tapping on the gray icons for each. Green Accept icon may be tapped to proceed to Run Protocol screen.

## Run Protocol Screen



Tap for HT-100 or HT-200 Plate Handler settings.

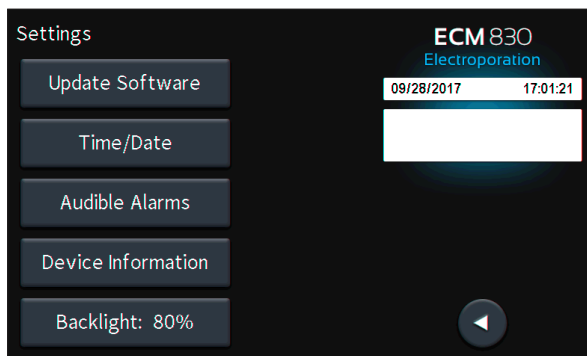


Tap for pre-pulse Sample Resistance Check.



Will illuminate if Sample Resistance is in acceptable range. Tap to run protocol.

## Device Settings Main Menu



## Notification Box Quick Reference

### Information / Status Message

Provides information or guidance for next steps, including acceptable ranges for protocol programming.

### Warning Message

Requires Notification Box tap for acknowledgement of information, but does not prevent operation of the system.

### Failure Message

Caused by user input error, failure of a protocol, or a system error. Requires user to correct this issue in order to complete the operation.

## Touchscreen Icon Quick Reference



Accept



Cancel



Back One Screen



Main Menu



File Menu



Device Settings



Protocol Locked



Protocol Unlocked



Pre-Pulse Resistance Check



Run Protocol



Stop Protocol



Delete Protocol



Page Down



Page Up



Scroll Down



Scroll Up