



a division of Harvard Bioscience, Inc.

# ECM 2001+ Electrofusion & 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 2001+ 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 2001+ 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

As received, the instrument is ready for use with 100–240 VAC, 50/60 HZ. The power requirements are 350 watts. In the USA, the power cord has 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.

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

Allow unit to come to stable room temperature. Pull the plastic tab from the battery holder at the bottom of the unit.

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

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

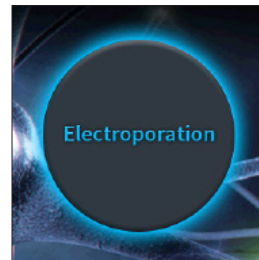
You are now ready to begin your work.

### Main Menu



#### Electrofusion Icon

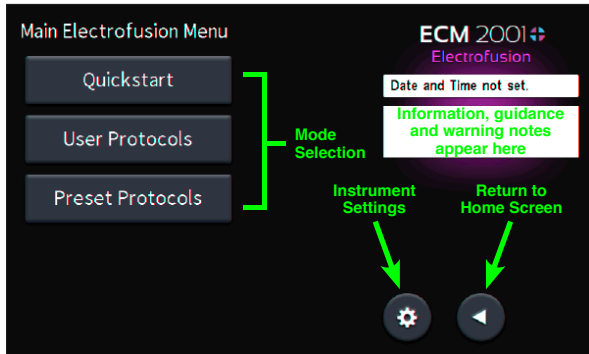
Takes you to Electrofusion Main Menu.



#### Electroporation Icon

Takes you to Electroporation Main Menu.

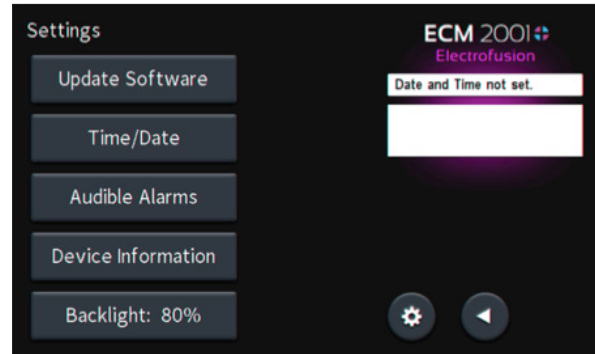
## Electrofusion Main Menu



### Mode Selection

<b>Quickstart</b>	Standard 3-step protocols with guided input depending on the electrofusion accessory that has been selected. These protocols allow some flexibility and are suitable for most applications.
<b>User Protocols</b>	Custom protocols that are programmed by the user. Choose this option when more than 3-step protocols are needed. Previously saved custom user protocols can be found here.
<b>Preset Protocols</b>	These protocols are based on the most popular methods. These protocols are factory set and cannot be changed. Simply select protocol based on cell type and application.

## Device Settings Main Menu



### Notification Box Quick Reference

#### Information / Status Message

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

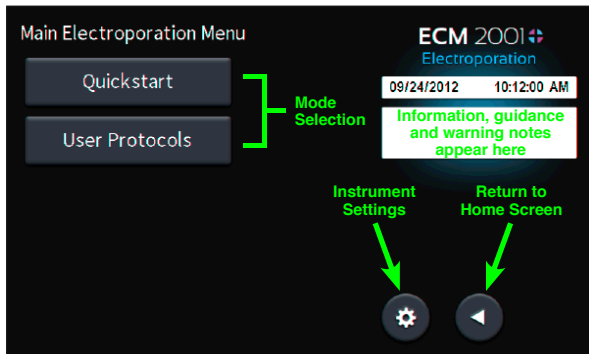
#### Warning Message

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.


















## Electroporation Main Menu



### Mode Selection

<b>Quickstart</b>	Standard 1-step protocol with guided input depending on the electroporation accessory that has been selected. This protocol allows some flexibility and is suitable for most applications.
<b>User Protocols</b>	Custom protocols that are programmed by the user. Choose this option to conveniently save electroporation protocols for different accessories and/or conditions. Previously saved custom user protocols can be found here.

## Touchscreen Icon Quick Reference

-  **Accept**
-  **Run Protocol**
-  **Cancel**
-  **Stop Protocol**
-  **Back One Screen**
-  **Delete Protocol**
-  **Home/Main Menu**
-  **Add a Step**
-  **File Options**
-  **Delete a Step**
-  **Settings**
-  **Copy a Step**
-  **Protocol Locked**
-  **Move Step One Position Up**
-  **Protocol Unlocked**
-  **Move Step One Position Down**
-  **Pre-Pulse Resistance Measurement**