



a division of Harvard Bioscience, Inc.

ECM 2001 *LITE*

Electrofusion & Electroporation System

Quick Start Guide



Download full user's manual at: www.btxonline.com

Unpacking the System

Your ECM 2001 LITE System is packed in a shipping carton that is 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 LITE 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.

Remove the battery insulating tab from the battery holder at the bottom of the unit.

Connect the mains/power cord into the back panel.

Power up the system by pushing the rocker switch located on the back panel. The display will show the Splash Screen with BTX and ECM 2001 LITE logos during software initialization. Once the software initializes, the Electrofusion Main Menu will appear.

You are now ready to begin your work.



Splash Screen

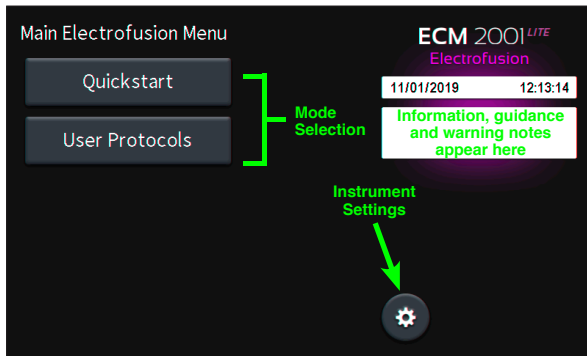


Remove Battery Insulating Tab



Back Panel

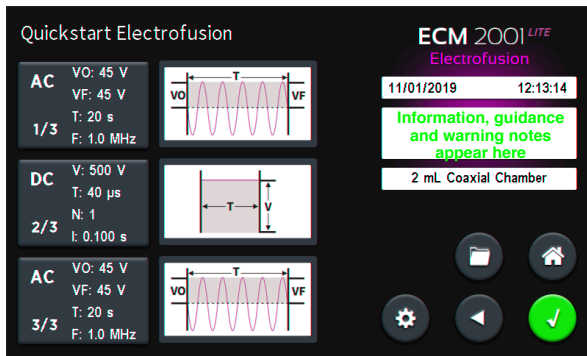
Electrofusion Main Menu



Mode Selection

Quickstart	Standard 3-step protocol with guided input depending on the electrofusion accessory that has been selected. The protocol parameters from the last Quickstart use are saved for future use.
User Protocols	Custom protocols that are programmed by the user. Choose this option when more than one set of saved protocol parameters are needed. Previously saved custom user protocols can be found here.

Electrofusion Quickstart Menu



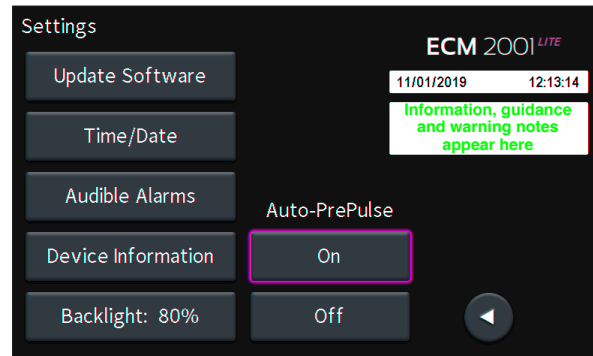
Quickstart Electrofusion Menu Options

Step Type	Protocol Parameter	Units
AC (Alternating Current, Sinewave)	VO (Initial Voltage)	Volts (V)
	VF (Final Voltage)	Volts (V)
	T (Current Duration)	Seconds (s)
	F (Sinewave Frequency)	Megahertz (MHz)
DC (Direct Current, Square Wave)	V (Voltage)	Volts (V)
	T (Pulse Duration)	Milliseconds (ms) or Microseconds (μs)*
	N (Number of Pulses)	N/A
	I (Interval Time Between Pulses)	Seconds(s)

* Toggle between ms and μs by tapping on the units symbol.

Note: For Electroporation protocols, the user may set pre-AC and post-AC step time parameters to 0 seconds, then program desired square wave electroporation settings for DC step.

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

