Pulse Switcher
Quick Start Guide

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

Unpacking the System

The shipping carton in which your BTX Pulse Switcher is packed has been specifically designed to provide maximum protection to the unit 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 BTX Pulse Switcher, power supply, and USB connection cable, and inspect the items for any apparent damage. Save the carton and packing materials for future transportation and shipping requirements. 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 Pulse Switcher is ready for use with an input range of 100–240 VAC, 50/60 HZ. The power source is connected to the Pulse Switcher via a power supply adapter which supplies 5 V to the Pulse Switcher.

Installation

Verify Software Version on ECM 830 or Gemini X2 Generator

To verify software, power on ECM 830 or Gemini X2 generator, select gear icon to proceed to Settings menu and navigate to Device Information screen. Verify Boot loader is version 1.2.1 or higher and verify that Application is version 4.0.4 or higher. Once software version is confirmed and any updates are completed, proceed with connecting the Pulse Switcher to the generator.

### Connect Pulse Switcher to Generator and Electrode

Plug the Pulse Switcher red and black INPUT pins to the High Voltage Output connectors at the bottom right-hand side of the front panel of the ECM 830 or Gemini X2 Generator.
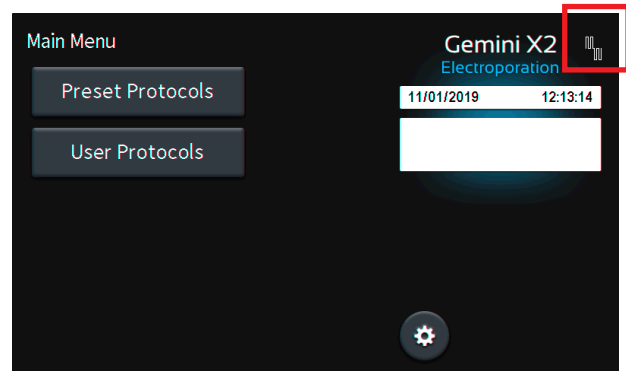
Connect the power supply adapter cord to into the 5 V DC port on the left side of the Pulse Switcher. When the Pulse Switcher is connected to a power supply, a green LED will illuminate on the front of the Pulse Switcher.

Connect the USB connection cord to the USB port at the bottom left-hand side of the front panel of the ECM 830 or Gemini X2 Generator. Connect the other end of the USB connection cord to the USB port on the left side of the Pulse Switcher.
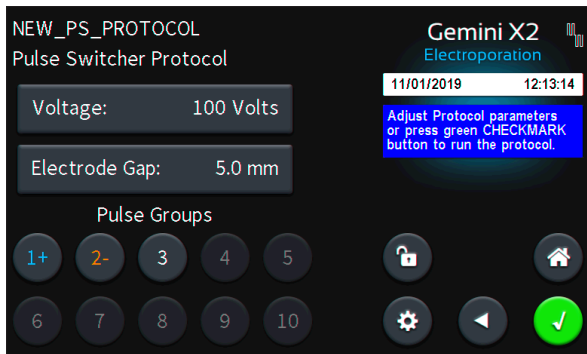
Connect desired electrode, safety dome, or safety stand to the red and black high voltage output ports on the front of the Pulse Switcher.

USB Device/Pulse Switcher Detection by Generator

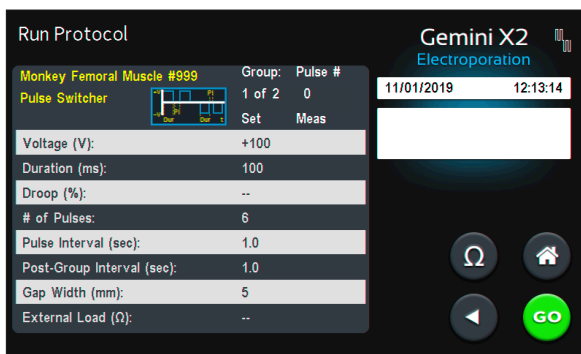Apply power to the Pulse Switcher through its power supply. Confirm that the Pulse Switcher is receiving power by verifying the green LED on its front is illuminated. In the upper right-hand corner of the ECM 830 or Gemini touchscreen, verify that the generator displays the device determination indicator, ❓ followed by the proper Pulse Switcher Indicator icon 🔲 to indicate the Pulse Switcher device is detected by the generator.
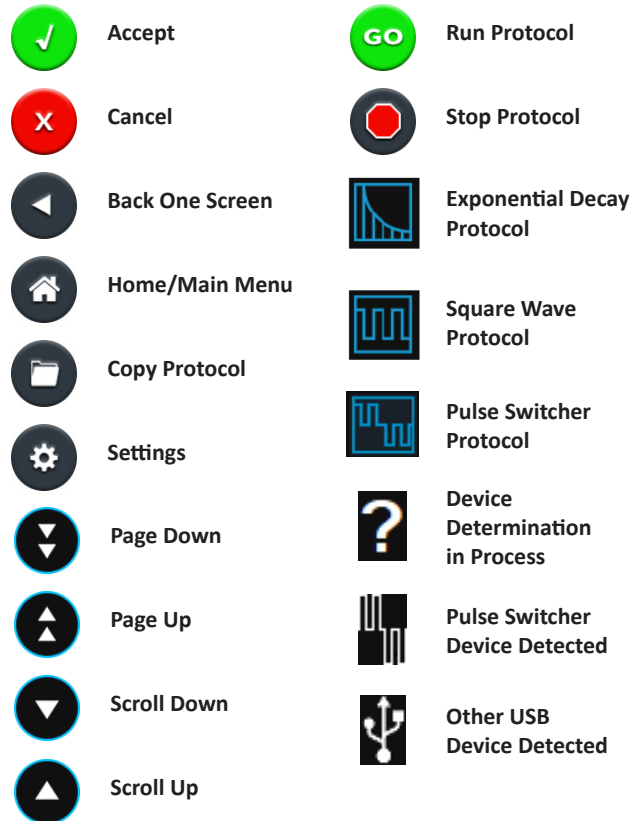
BTX
User Protocol
Quick Start Guide

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User Protocol Review Screen

Run Protocol Screen

Touchscreen Icon Quick Reference

✓ **Accept**	GO **Run Protocol**
✗ **Cancel**	⬤ **Stop Protocol**
◀ **Back One Screen**	**Exponential Decay Protocol**
⌂ **Home/Main Menu**	**Square Wave Protocol**
🗀 **Copy Protocol**	**Pulse Switcher Protocol**
⚙ **Settings**	? **Device Determination in Process**
⏬ **Page Down**	**Pulse Switcher Device Detected**
⏫ **Page Up**	**Other USB Device Detected**
▼ **Scroll Down**	
▲ **Scroll Up**	

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 tap Notification Box for acknowledgement of information and to correct this issue in order to complete the operation.