

# SUNSTIM™ PRO

## PERIPHERAL NERVE STIMULATOR

LATEX FREE



Side switch to increase and decrease level of stimulation

Ergonomic, compact shape fits comfortably in hand

Removable silicone wrap enhances grip, helps protect device and comes in a variety of colors





Colorful Silicone Pro Wrap available in nine colors to personalize and protect your device

### SunStim™ Pro Functionality:

- Double burst: Two 60-ms bursts of 50 Hz separated by 0.75s
- Twitch: 1 pulse per second
- Tetanus: 50 Hz (50 pulses/s) or 100 Hz (100 pulses/s)
- Built-in train of four: 4 pulses in a period of 2 seconds
- Stimulus pulse: square wave monophasic pulses (200- $\mu$ s duration)

## OPERATION INSTRUCTIONS

### Switching the unit on and off; adjusting stimulation amplitude

1. The SunStim Pro Peripheral Nerve Stimulator is turned on and off by holding the  button for three (3) seconds. The  button is located in the middle of the device faceplate. Once ON, the device will be in Standby mode, and no pulses will be produced.
2. The +/- button is used to adjust the stimulation amplitude of the output current, which may range from 0 to 70 mA. The +/- button is located on the right-hand side of the device. If the output current level setting is zero, stimulation amplitude will not be delivered. The setting level and current output are displayed on the LCD screen.

### FOUR PANEL TOUCH SWITCHES

1. Stimulation frequency patterns may be activated by pressing one of four panel touch switches (DBS, TWITCH, TETANUS, TOF).
2. Pulse LED will flash each time a pulse is generated.

### OUTPUT CONNECTORS

1. Transcutaneous stimulation can be carried out by using surface electrodes.
2. The Nerve Stimulator is supplied with metal ball electrodes and lead wires.
3. Two (2) connectors, RED (positive) and BLACK (negative), are located on the top of the Nerve Stimulator device.
4. The output current may reach up to 70 mA, measured with a 2K Ohm load, using a new 9V DC battery.
5. Provided lead wires with BLACK plug, should be connected to the black output connector. This connection will create the negative output.
6. Provided lead wires with RED plug, should be connected to the red output connector. This connection will create the positive output.
7. Bipolar probe electrodes can be connected to output connectors, by plugging them directly into the RED (positive) and BLACK (negative) connectors, located on the top of the Nerve Stimulator device.
8. It is recommended to create a lead wire loop after they have been attached to electrodes, and a piece of tape placed over them in order to prevent possible electrode displacement.
9. The Nerve Stimulator should be connected to electrodes that are positioned over the selected nerve, prior to anesthesia induction.

### PERIPHERAL NERVE MONITORING SITES

1. The site of stimulations should be away from the surgical field and its location accessible to the anesthesia provider.
2. If visual or tactile nerve monitoring is to be used, the site location must be accessible to the anesthesia provider.
3. Electrical stimulus can be performed at the:  
Ulnar Nerve - Leads/bipolar probes may be placed:
  - Along the medial aspect of the distal forearm (wrist);
  - Over the sulcus of the medial epicondyle of the humerus (elbow);
  - On hand, by placing the negative electrode on the palm between the base of the thumb, and the second finger, and the positive electrode in the same position on the dorsal side of the hand.