



SURGICAL CONSIDERATIONS

- Do NOT use the stimulator while simultaneously delivering electrocautery.
- Do NOT apply stimulation across chest.
- Direct stimulator contact may disrupt the operation of active implanted devices. Consult medical specialist before use.
- Use of tourniquet may reduce nerve and muscle excitability. It may be necessary to take down tourniquet and allow time for re-perfusion.
- **CONTRAINDICATION:** Do NOT use this stimulator when paralyzing anesthetic agents are in effect, as an absent or inconsistent response to stimulation may result in inaccurate assessment of nerve and muscle function.

See Instructions for Use (www.checkpointsurgical.com/ifu) for complete listing of indications, contraindications, warnings, and precautions.

LIGHT STIMULATION STATUS

● SOLID YELLOW

The Stimulator has been turned on, but the amplitude switch is now in the off/standby position. Stimulation is NOT being delivered.

⊙ FLASHING RED

Stimulation has been requested, but adequate stimulus current is NOT being delivered because of poor connection of the probe or the needle return electrode to the patient tissue.

⊙ FLASHING YELLOW

Stimulation is being delivered (NOTE: the flashing rate does NOT correspond to the stimulus frequency or intensity).

● SOLID RED

Stimulation has turned off due to reaching end of life (7hrs), or the stimulator has detected an error if operated <7hrs. No stimulation output is being delivered.

LCD MESSAGES

MESSAGE	MEANING
10...200	Pulse duration (in microseconds)
.5mA, 2mA, 20mA	Pulse amplitude, briefly displayed after changing stimulus amplitude switch.
STBY	Amplitude switch is in off/standby position. Stimulation is not being delivered.
END	Stimulator has reached end of life at approximately seven hours of operation.
ERR	Device has entered shut down mode. Return to Checkpoint for evaluation.





CLINICAL APPLICATIONS

Nerve Protection

Reliably locate nerves in altered anatomy or any time nerves are at risk.

Nerve Assessment

Evaluate nerve and muscle function to assist with surgical decision making.

Intraoperative Modeling

Adjust stimulation intensity to proportionally control strength of muscle contraction.

SUGGESTED STIMULATION SETTINGS

- Stimulation intensity is adjusted by both the stimulation amplitude and pulse duration controls.
 - The amplitude switch provides coarse control of stimulation intensity.
 - The pulse duration switch provides fine control of stimulation intensity at each stimulation amplitude setting.
- General amplitude setting guidance.
 - 0.5mA: Direct stimulation of healthy, exposed nerve in the surgical field.
 - 2mA: Stimulation of nerves not visible but believed to be in very close proximity to the probe tip; or stimulation of impaired nerves.
 - 20mA: Should not be used for direct nerve stimulation; used for direct muscle stimulation, where pulse duration control is used to proportionally control muscle contraction.
- The observed stimulation response is a tetanic or fused muscle contraction through continuous stimulation.

SUGGESTED STIMULATION TECHNIQUES

- Use either a gentle sweeping motion or keep the probe in contact with tissue rather than quickly tapping the tissue.
- Observe flashing yellow indicator light while delivering stimulation. Look for corresponding muscle response.
- Regional Stimulation: Higher stimulation intensities can be used to locate or map nerve location through tissue.
 - Start with higher stimulation intensities, sweeping across tissue until a motor response is observed.
 - Decrease the stimulation intensity, first pulse duration then amplitude, help to further localize the nerve within the tissue.
- Threshold Testing: Beginning with lower amplitude settings, gradually increase pulse duration control from lowest position for each chosen amplitude setting, observing minimum stimulus required to elicit muscle response.

TECHNICAL CHECK

1. Select 0.5mA amplitude.
2. Touch tip of probe to needle return electrode.
3. Confirm indicator light changes from flashing red to flashing yellow.



Nerve Care. Empowered.