TETRAGRAPH

Next-Generation

Quick Reference Guide

SENZIME

TETRAGRAPH
Buttonology

Optimal stimuli settings found (or supra maximal stimuli found) indicated in green

Good sensor placement is indicated by signal strength in green.

Battery indicator

Settings

Notification Bar

Power Button

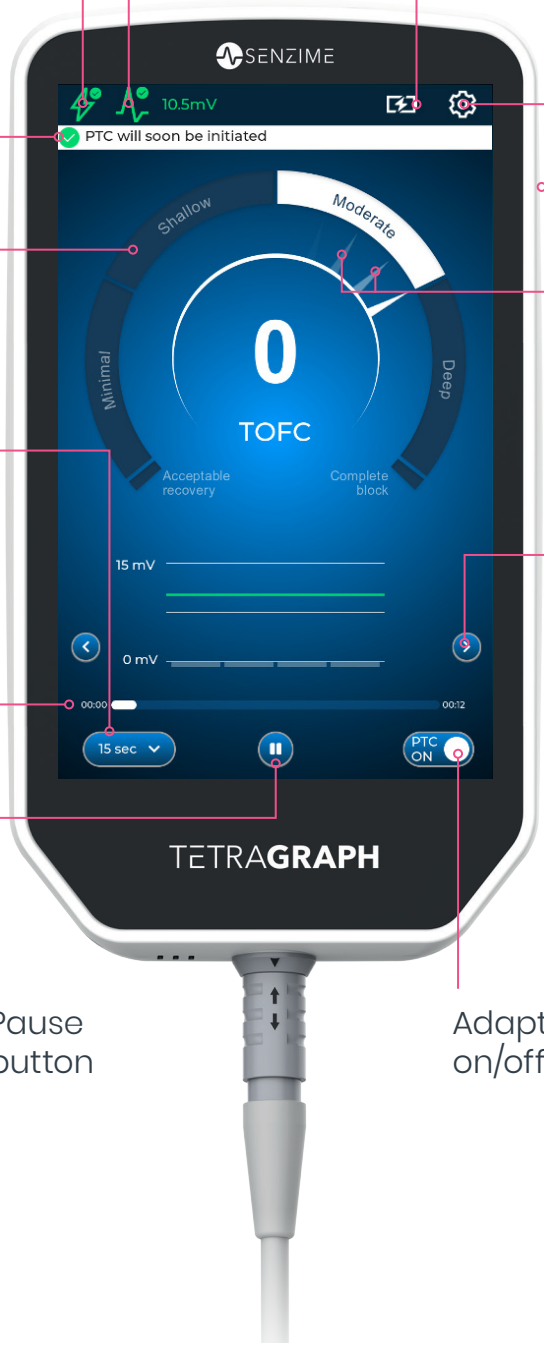
TetraGraph® Level-of-Block Gauge™

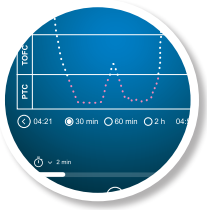
The faded arrows indicate which way the needle is trending

Change time interval between every reading

Change view from bar graph to EMG curve to trend graph

Countdown timer to next reading





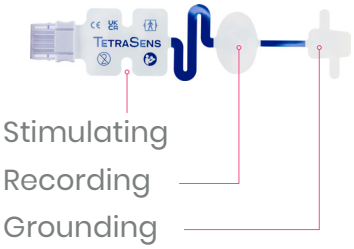
Pause button

Adaptive PTC™ on/off

TETRAGRAPH
Quick Guide

1 Turn on Monitor
If the monitor is not connected to power, ensure adequate battery charge.

2 Place Sensor
Prepare skin, place stimulating electrodes on ulnar nerve, attach recording electrode to Abductor Digiti Minimi (ADM) muscle or Adductor Pollicis (AP) muscle, and position grounding electrode away from recording electrode.




ADM


AP


Foot Placement

3 Connect Cable to Sensor
A quick, single click sound confirms a proper connection.

4 Press Auto Play Button
Press auto play button before administering muscle relaxants for optimal sensor placement feedback.

The monitor will auto-select optimal stimulus and set a signal strength. Strive for signal strength >5 mV indicated in green.

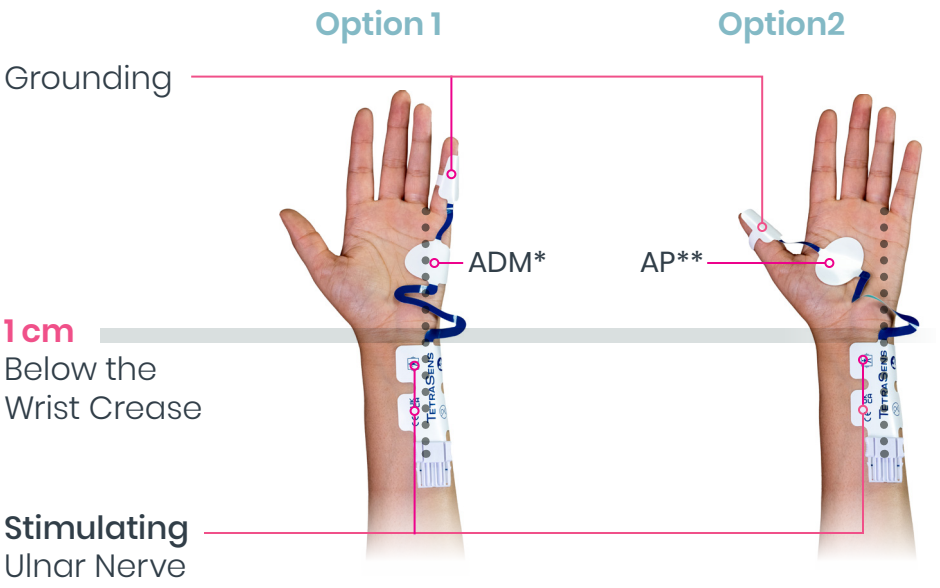
5 Enter TetraGraph® Adaptive PTC™
TetraGraph® Adaptive PTC™ Enters Deep Block Mode automatically when TOFC is 0.

6 Ensure Acceptable Recovery
The patient has reached acceptable recovery when TOFR is ≥ 90%.

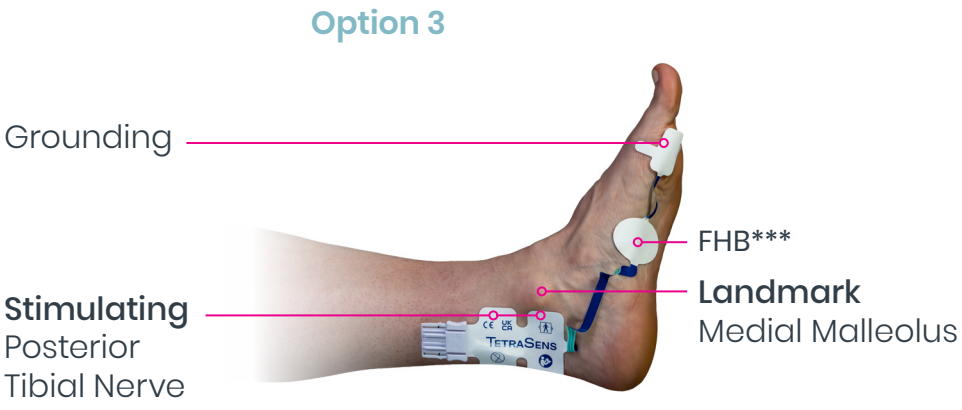
Important:
Please read the complete TetraGraph User Manual, including warnings and cautions section, before operating the device to ensure safe and correct use.

TETRAGRAPH
Sensor Placement

Ulnar Nerve



Posterior Tibial Nerve



*Abductor Digiti Minimi muscle
**Adductor Pollicis muscle
***Flexor Hallucis Brevis muscle

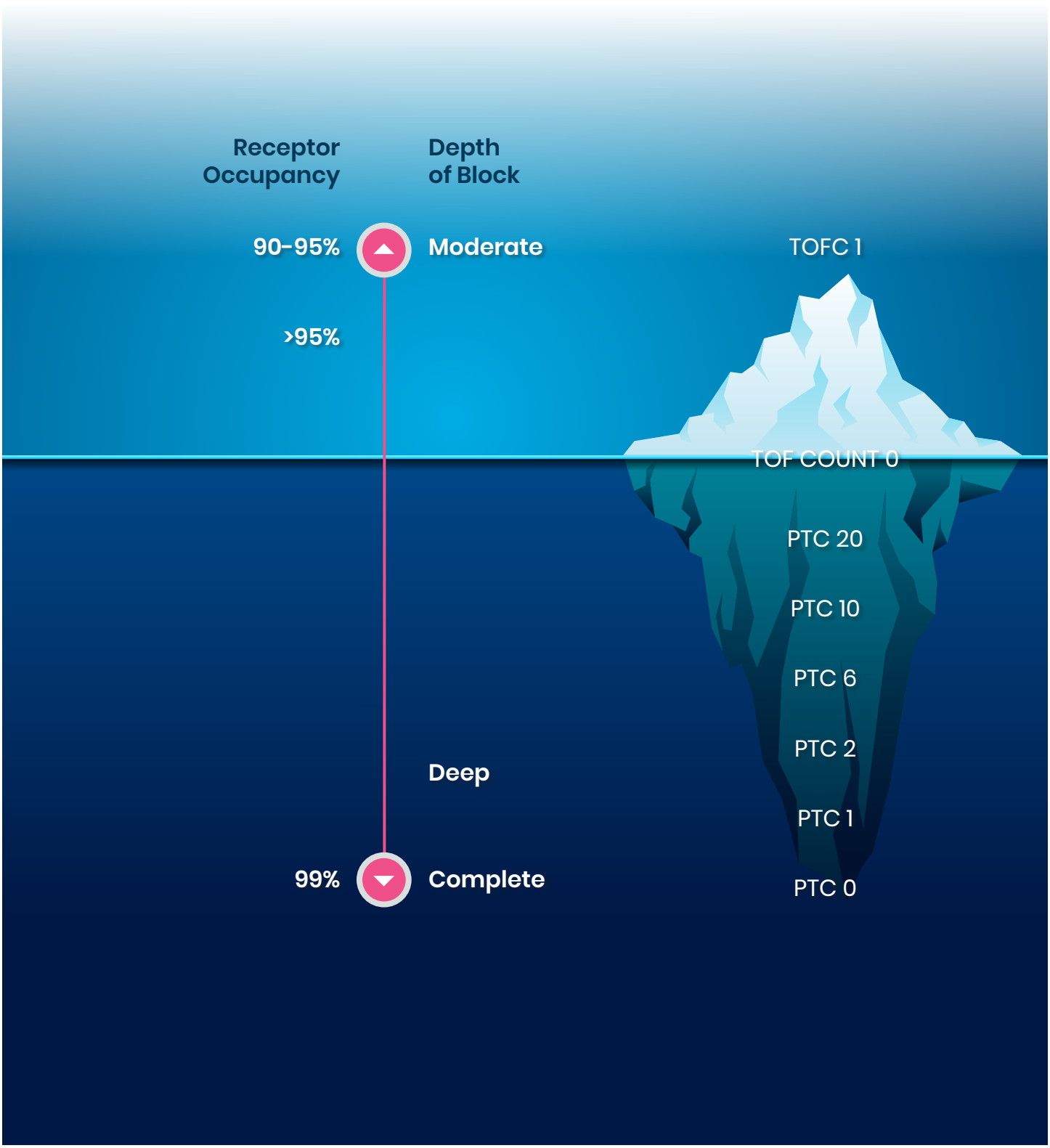
TETRAGRAPH
Level-of-Block Gauge™

Acceptable recovery TOFR	≥ 90%
Minimal TOFR	40–89%
Shallow TOFR	< 40%
Moderate TOFC	0–3
Deep PTC	1–20
Complete Block PTC	0

1. G. S. Murphy et al., Anesthesiology. 136, 345–361 (2022).

TETRAGRAPH

PTC: The Tip of the Iceberg

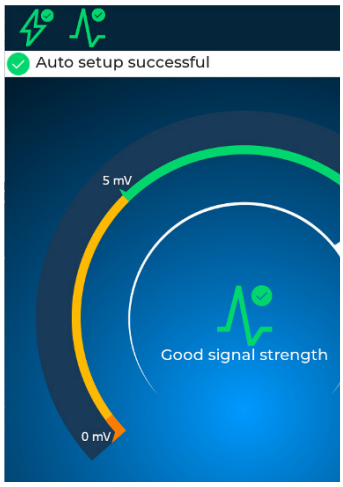


TETRAGRAPH
Sensor Placement Feedback

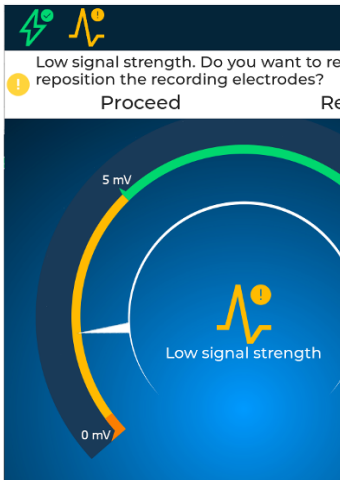
Strive for **Five**

Signal strength measures the strength (amplitude) of the first twitch. It is recommended to measure signal strength before administering muscle relaxants. If you start the device after NMBAs have been given, TetraGraph® Adaptive Intelligence™ will display an estimated signal strength.

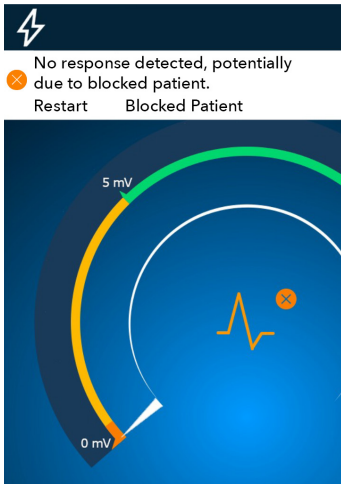
After pressing Auto Play button, TetraGraph will measure signal strength.



Good Signal Strength

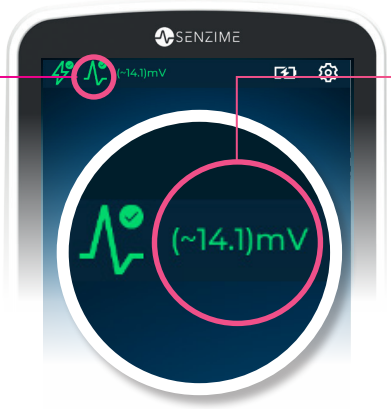


Low Signal Strength



No signal strength detected

Throughout the case, signal strength is displayed at the top left corner of the screen. Press on the icon button for more information.



If you start the device after NMBAs have been given, **estimated signal strength** will be displayed in parenthesis

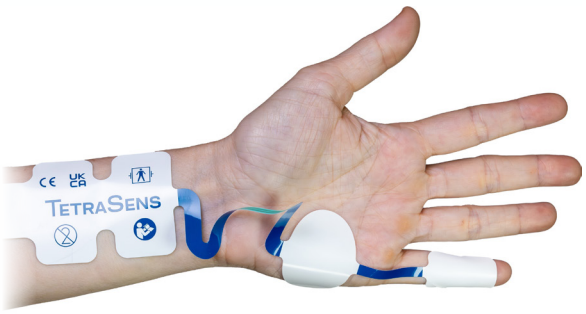
TETRAGRAPH
Sensor Placement Matters

Good Signal Strength >5mV

Good placement on ulnar nerve.

Higher signal strength=higher intraoperative sensitivity

Low Signal Strength <5mV



Sensor placed in center of wrist, not over ulnar nerve

Sensor placed too far from wrist crease

Sensor placed on radial side, not over ulnar nerve

Paralytic Dosing & Reversal Management

Intubation & Intraoperative Management

Rocuronium Dosing Guidelines – Elective Intubation (Non-RSI)

Intubation Dose: Rocuronium Bromide 0.6 mg/kg (IBW)
- Dose adjusted for sex: Dose reduction females (15%)
- Dose adjusted for age: For each year > 55 (1%/year)

Incremental Dosing
- 20% of ED_{95}Dose (ED_{95}Dose Rocuronium = 0.3 mg/kg)

Redosing Indications via Quantitative Monitoring

Redose @ TOFC of 3
- If profound block is necessary, redose@ PTC at count of 1

Avoid total twitch loss (PTC of 0)
- Avoid redosing in last 30 minutes of the procedure

Extubation Timing
- TOFR ≥ 90% via Quantitative Monitor

Reversal Management

Quantitative TOF Value	Reversal Agent and Dose†
TOFR ≥ 90%	Reversal not required
TOFR> 40%	Neostigmine 40 mcg/kg (Max 5mg)*
TOFR < 40% **TOFC 3, 2, or 1**	Sugammadex 2 mg/kg**
TOFC 0 **PTC ≥ 1** **PTC 0** (non-emergent)	Sugammadex 4 mg/kg**
PTC 0 (emergent) Can't intubate/ventilate	Sugammadex 16 mg/kg**

†After Rocuronium or Vecuronium

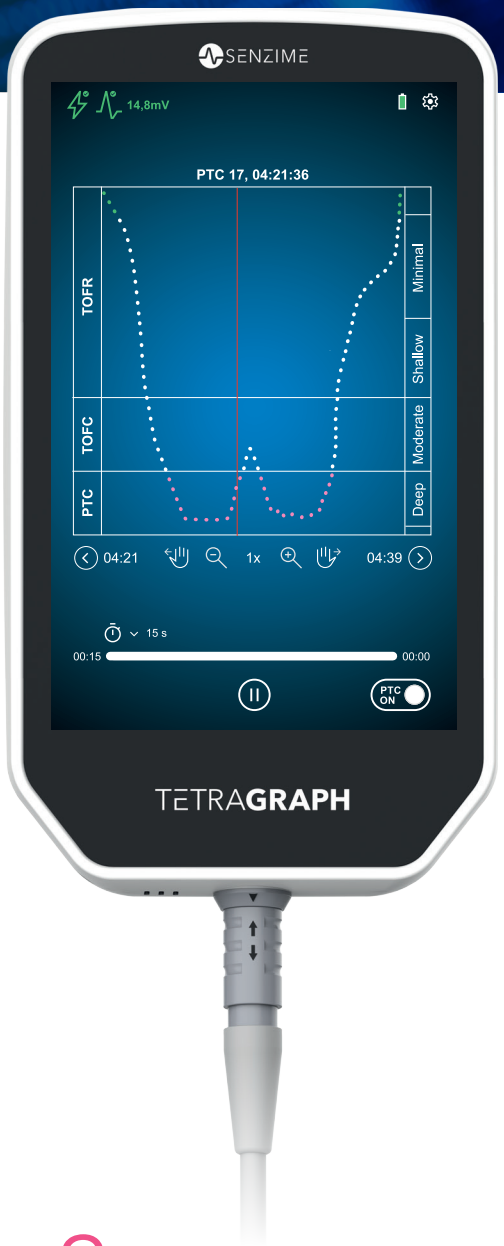
This guide is based on published literature. Clinicians should use their own judgment.

*Neostigmine dosed on Ideal Body Weight; Neostigmine requires time to work; time reversal with expected extubation time. If ≥ 90% TOFR is not achieved in **15 minutes**, dose with 2 mg/kg Sugammadex and confirm 90%

**Sugammadex dosed on Actual Body Weight. .

1. S. R. Thilen et al., *Anesthesiology*. 138, 13–41 (2023).
2. Merck & Co., Inc., Bridion® dosing considerations.

TETRAGRAPH



Learn more?

Senzime.com/Support

INFO0139 V_1.1