

SPECTRUM 4000Q™ / 4000M™ MODELS WITH SPECTRUM ULTRABRIEF®

NEW STANDARD OF CARE

The SPECTRUM 4000Q™ and 4000M™ models incorporate the **Newest Form** of ECT - SPECTRUM ULTRABRIEF® - and the newest OPTIMIZED and FULL SPECTRUM DOSING Parameter Sets in an **Upgradable, Portable, Cost-Effective** ECT device with the **EVIDENCE BASED** parameter sets of the best-selling SPECTRUM 5000Q® and 5000M™ devices.

The OPTIMIZED DOSING Parameter Sets **0.3, 0.5, 1.0 ms** offer dosing in the most optimized pulse widths as the inefficiency of wider pulses has been firmly established.²The evidence is that increasing the duration of the pulse train is more efficient than increasing pulse frequency.^{1,2}On all MECTA 4000Q™ and 4000M™ models and in all OPTIMIZED and FULL SPECTRUM DOSING Parameter Sets, the range of train duration is now less than 0.5 to 8 seconds. **NEW!** At longer pulse widths (0.5 ms and 1.0 ms) maximum device output is achieved at lower pulse frequencies. **NEW!** Finally, Current is fixed at 800 mA in the OPTIMIZED and FULL SPECTRUM DOSING Parameter Sets reflecting the vast body of clinical research on 800 mA. **NEW!** In the FULL SPECTRUM DOSING Parameter Sets, MECTA is the only device with flexibility and choice of current from 500 mA to 900 mA as there is speculation that titration in the current domain* may refine stimulus properties.^{2,3} **NEW! Optimized Ultrabrief ECT (0.3 ms) is available as an upgrade to your current Ultrabrief ECT (0.3 ms) parameter set.**

TITRATION and PRE-SELECTED DOSING TABLES

MECTA has developed new Titration and Pre-Selected Dosing Tables. These are the most accurate and up to date tables taking into account gender, age and electrode placement.⁴The parameters are evidence based and offer greater efficiencies and wider treatment ranges.

FEATURES:

- Intuitive** Six tactile membrane switches with only one menu
- Efficacy** Up to sixteen therapeutic treatment parameters
- Two Distinct Dosing Devices** -
 - 4000Q™ - Four knobs for flexibility and precision
 - 4000M™ - One knob for simplicity in 1% steps
- Portable** Robust handle, small footprint and lightweight case

- SAFETY** Extensive regulatory agency approvals worldwide U.S. (UL); Canada (CSA, Health Canada 8 Approvals, #1537, #62578, #62576); European Union, TUV (EN ISO 13485:2003+AC:2007; CMDCAS ISO 13485:2003; EC 93/42/EEC Annex II, Article 3); EN ISO 9001:2008; Korea (KFDA); Australia (TGA)



ECT PARAMETERS / 100 JOULE SYSTEMS

Q Models

	OPTIMIZED DOSING Parameter Sets			FULL SPECTRUM DOSING Parameter Set
	0.3	0.5	1.0**	Set 4** NEW!
Four Parameter Sets:				
Pulse Width	0.3-0.37 ms	0.5 ms	1.0 ms	0.3-1.0 ms
Stimulus Duration	0.5-8.0 sec	0.5-8.0 sec	0.5-8.0 sec	0.5-8.0 sec NEW!
Frequency	20-120 Hz	20-90 Hz	20-45 Hz	20-120 Hz
Stimulus Current	800 mA	800 mA	800 mA	500-900 mA NEW!
Charge	4.0-568 mC	8.0-576 mC	16-576 mC	3.0-576 mC
Energy @ 220 ohm patient impedance	0.8-100 joules	1.4-101.4 joules	2.8-101.4 joules	0.3-101.4 joules

M Models

	OPTIMIZED DOSING Parameter Sets		
	0.3	0.5	1.0**
Three Parameter Sets:			NEW!
Pulse Width	0.3-0.38 ms	0.5 ms	1.0 ms
Stimulus Duration	0.59-7.9 sec	0.35-8.0 sec	0.18-8.0 sec NEW!
Frequency	20-120 Hz	20-90 Hz	20-45 Hz
Stimulus Current	800 mA	800 mA	800 mA NEW!
Charge	5-576 mC	5-576 mC	5-576mC
Energy @ 220 ohm patient impedance	1.0-101.4 joules	1.0-101.4 joules	1.0-101.4 joules

*Patent Pending

**EEG Data Analysis enabled for use with 1.0 OPTIMIZED DOSING Parameter Sets and Historical Parameters in the FULL SPECTRUM DOSING Parameter Set.

*4000Q™ and 4000M™ models do not perform physiological EEG/ECG/OMS monitoring.

1. Devanand DP, Lisanby SH, Nobler MS, Sackeim HA. The relative efficiency of altering pulse frequency or train duration when determining seizure threshold. *The Journal of ECT*. 1998;4:227-235.
 2. Peterchev AV, Rosa M, Deng Z, Prudic J, Lisanby S. Electroconvulsive therapy stimulus parameters: rethinking dosage. *Journal of ECT*. 2010;3:159-174.
 3. Sackeim HA. The convulsant and anticonvulsant properties of electroconvulsive therapy: towards a focal form of brain stimulation. *Clinical Neuroscience Research*. 2004;4:39-57.
 4. Sackeim HA. Electroconvulsive therapy in late life depression. In Salzman, C. (Ed.), *Clinical Geriatric Psychopharmacology*. 2004;4:385-422.