

Table 4-2. Specifications of ECT devices used in the United States (as of January 2009)

Specification	MECTA				Somatics		
	SR-1 and JR-1 ^a	SR-2 and JR-2 ^a	spECTrum 5000Q/4000Q ^b	spECTrum 5000M/4000M ^b	Thymatron [®] DGx ^a	Thymatron [®] DGx with FlexDial ^{b,c}	Thymatron [®] System IV ^b
Peak current (mA)	500–800	~800	500–800	800	900	900	900
Frequency (pulse pairs per second)	40–90	70	20–120	20–120	30–70	30–70	10–140
Pulse width (ms)	0.5–2.0	0.5–4.0	0.3–2.0	0.3–2.0	1.0	0.5–1.5	0.25–1.5
Duration (seconds)	0.5–2.0	0.5–4.0	0.5–8.0	0.2–8.0	0.5–4.0	0.1–8.0	0.1–8.0
Charge ^d (mC)	20–576	20–576	5–576	6–576	27–504	25–504	25–504
Energy ^{d,e} (J)	2.2–101	13–101	1–101	1–101	5–99	5–99	5–99
EEG monitoring	SR-1 yes JR-1 no	SR-2 yes JR-2 no	5000Q yes 4000Q no	5000M yes 4000M no	Yes	Yes	Yes
Computer monitoring and storage capability	No	No	Yes	Yes	Yes	Yes	Yes

Note. EEG=electroencephalogram; J=joules; mA=milliamperes; mC=millicoulombs; ms=milliseconds.

^aManufacturer's second-generation device.

^bManufacturer's third-generation device.

^cOptional.

^dAt time of writing, maximum device output charge in the United States for both U.S. ECT device manufacturers are limited by the Food and Drug Administration to what is shown in this table. For some other countries, these companies' devices are available with extended stimulus parameter ranges, allowing for approximately double the maximum output charge.

^eEnergy values assume a dynamic impedance of 220 Ω .

From Mehul, M., Beyer, J. Weiner, R., and Krystal, A. (2010). *Clinical Manual of Electroconvulsive Therapy*. American Psychiatric Publishing, Washington DC.