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TRANSFORMING IDEAS
INTO INSTRUMENTS

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MISCELLANEOUS, ECT, LMD

ECT Unit

Cat. No. 57800

General

The ECT apparatus is specially designed for neurochemical and neuropharmacological research.

A constant current output is used, which ensures reproducible results and accurate determination of the EC threshold while also pinpointing any variations in the threshold, brought about by drugs having a specific action on the cortex and subcortical regions.

The shock parameters have been selected after consulting the most recent literature, to supply the most suitable range when operating with mice and rats.

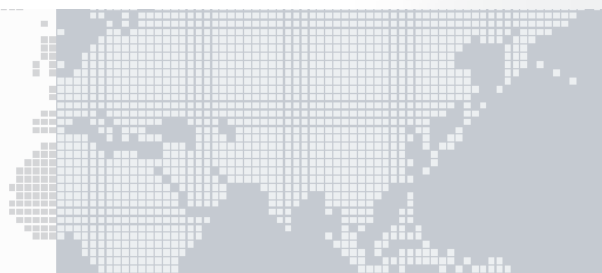
Consistent reproducible current levels are produced by feedback circuitry that adjust for variance in impedance of the contact from animal to animal.

The Electroconvulsive Device is supplied with auricular (ear lobe) electrodes.



DESIGNED FOR
INDUCING
CONVULSIONS IN
RESEARCH ANIMALS

FOR NEUROCHEMICAL
&
NEUROPHARMACOLOGICAL
RESEARCH



Particularly useful for:-

- General screening of potentially neurotropic substances
- Evaluating the depressant or stimulating action of drugs on the CNS
- Endocrinological investigations on the relationship between the nervous system and the hypophysis

Ugo Basile: more than 25,000 citations

General

Consistent reproducible current levels are produced by feedback circuitry that adjust for variance in impedance of the contact from animal to animal.

The impedance of the animal can be previously measured and displayed, and a warning signal flashes if the impedance is too great to deliver the desired current level.

The special output circuit enables any type of electrode to be used.

The **auricular electrodes 57800-002**, supplied with the standard package, allow a single operator to deliver shock to a number of animals in a short time.



The above picture features **Corneal Electrodes Cat. 57800-003**, which can be provided as **optional**.

Different types of electrodes can be manufactured on request.

Specifications



Rectangular Positive

Pulse :	by H.V. transformer
Constant Current :	controlled by a feedback network
Pulse Rise&Fall Time :	20 μ s
Pulse Width (ms) :	0.1 to 0.9 in 0.1ms steps \pm 1%
Frequency (pulses/s) :	1-299 in 1 pulse/s steps \pm 1%
Shock Duration :	0.1 to 9.9 in 0.1s steps \pm 1%
Pulse Voltage :	2.5KV max.
Current Range :	0-99mA in 1mA steps \pm 2%
Output Resistance :	min 00hm - max. 25KOhm (at max. current)
KOhm Display :	0-199 KOhm - 1KOhm resolution
Power Requirements :	115/230V - 50/60Hz - 70VA

WARNING: due to HIGH VOLTAGE involved, the operator should always wear rubber gloves when handling the electrodes.

Bipolar Inverter 57800-010

An optional Biphasic Unit may be placed between the animal and the Electroconvulsive Device to invert every second pulse. Maximum frequency in this case becomes 100 Hz.

ECT Monitor 57800-015

When connection to an oscilloscope or data acquisition system, this useful accessory is required to guarantee a simple and safe way to monitor the ECT output.

The risk of damage to the ECT Unit due to accidental wrong connections is avoided when using the ECT Monitor.



Ordering Information

57800 ECT Unit, standard package including:

- 57800-001** Pulse Generator
- 57800-002** Set of Auricular Electrodes
- 57800-302** Instruction Manual (on USB pen drive)
- E-WP 008** Mains Cord

Accessories and Spares

- 57800-003** Set of Corneal Electrodes
- 57800-320** Set of 4 Felt Pads for Auricular Electrodes
- 57800-010** Bipolar Inverter
- 57800-015** ECT Monitor

Physical

Instrument Size	27(W)x37(D)x13(H)cm
Weight	3.4Kg
Packing	45x34x26cm
Shipping Weight	5Kg

Bibliography

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- F. Tomaciello et alia: "Resveratrol Lacks Protective Activity Against Acute Seizures in Mouse Models" *Neuroscience Letters* 632: 199-203, **2016** (6Hz model)
- R.J. Schloesser et alia: "Antidepressant-like Effects of Electroconvulsive Seizures Require Adult Neurogenesis in a Neuroendocrine Model of Depression" *Brain Stimulation* 8(5): 862-867, **2015**
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