



UGO BASILE

BIOLOGICAL RESEARCH APPARATUS



2006 Catalogue

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Cat. No. 47700 Rat Rota-Rod / *Rota-Rat per ratto*

A **ISOLATED ORGAN BATHS**
Cat. no. 4000/4050

Research involving effects of electrical stimuli or drugs on isolated organs, uterus, trachea, vessel strips, auricle, can be performed under optimum conditions.

Wash or test solution enters the chamber after passing through temperature equalizing coils and a syringe valve. Provision is made to minimize back diffusion once the chamber is filled.

Water stirring is accomplished by a water jet delivered by a centrifugal pump.

Cat. No. 4400 four chambers bath is also available.

Bagno per Organi Isolati, a una camera (4100, 10ml), completo di morsetto e accessori standard



B **SUPERFUSION SYSTEM**
Cat. no. 14900

The Superfusion System 14900 has been designed to carry out release studies from synaptosomes according to the instrument originally developed in Raiteri's laboratory. The System is a great help to explore the physiological mechanisms of transmitter release and how to process is modified by pathological states, which will lead to advances in therapeutics. The 14900 consists of 12 parallel superfusion chambers to which media of desired composition can be delivered from upper reservoirs. The synaptosomes are accommodated as thin layers on microporous filters. Superfusion is provided by an optional multi-channel peristaltic pump and superfusate samples are directly collected into scintillation vials.

Sistema di Superfusione (metodo Raiteri), comprendente unità elettronica e bagno completo di supporto, camere superiori, camere inferiori, valvole e manometri



C



C **MULTIPLEXING PULSE BOOSTER**
Cat. No. 3165

The typical one-channel stimulator lacks the power, independent output connections and individual adjustment capability to deliver pulses of preset intensity to more than one preparation. The 4-channel Multiplexing Pulse Booster, providing high power (up to 800 mA), has been designed to obviate these shortcomings, performing as a useful complement to any stimulator, to energize up to four in-vitro electrode pairs at the same time. The 3165 provides constant current, unipolar or bipolar pulses and current monitoring. A Timer Cat. No. 3175 can be supplied to enable the Pulse Booster to deliver pulse trains, when the stimulator lacks this feature.

Multiplexing Pulse Booster, 4 canali, corrente costante

A **2-CHANNEL RECORDER "GEMINI"**
Cat. No. 7070

The 2-Channel recorder Gemini Cat. No. 7070 is a high-quality compact desk-top recorder of simple and straightforward design.

Gemini, directly or via suitable transducers or adapters, records a number of parameters, e.g.,

- " Force
- " Heart rate
- " Pressure
- " Respiratory Flow Rate
- " Displacement
- " Respiratory Volume (cumulative)

It has been designed for use in student and research laboratories, keeping in mind the needs of pharmacological investigations. A single Channel "Unirecord" Cat 7050 is also available.

Registratore Bicanale Gemini, senza preamplificatori



B **ISOMETRIC AND ISOTONIC TRANSDUCERS**
Cat. No. 7003, 7004, 7005

and the High Sensitivity Transducer 7010 have been designed for precise measurement of force in muscular preparations under isometric conditions. The force exerted on a hollow carbon fibre beam is converted into proportional electric signal.

The 7006 Isotonic Transducer is specially designed for investigating isotonic contractions in isolated organs, particularly smooth muscle, amphibian hearts, etc., and is basically a displacement meter under constant load, whereas an isometric transducer measures changes in force at constant length.

*Trasduttore Isometrico di Forza, tipo DY1
Trasduttore Isometrico di Forza, tipo DY2
Trasduttore Isometrico di Forza, tipo DY3
Trasduttore Isotonico*



C **DOG VENTILATOR**
Cat. No. 5025

A sturdy reliable Ventilator featuring the same kinematic design of the Rodent & Cat/Rabbit Ventilators (see box nearby!) but dimensioned for dogs. 350 ml and 700 ml cylinder/piston combinations are available.

The Pump frame is fastened to a trolley which moves on heavy duty casters, two of which are provided with pedal operated brake/release mechanism.

*Pompa di Ventilazione per Cane,
completa di cilindro/pistone da 700ml e accessori standard*

C



A MOUSE VENTILATOR Cat. No. 28025

28025 Mouse Ventilator is a mechanically unique positive positive pressure pump, according to Starling's ventilation method, designed for use with mice, but also suitable for very small birds, perinatal rats, etc.

The instrument is light and compact, cm 20x13x18,5 and it is self-contained: in other words, it embodies its power supply which feeds the geared motor, its feedback controller and the rate display.

The tidal volume, in the range 0,1 - 1 ml (or 0,05 - 0,5 when the smaller cylinder/piston is installed) can be selected either while the pump is running or at a standstill.

Pompa di Ventilazione per Topi e Ratti Neonati, completa di cilindro/pistone da 1 o 0,5 ml e accessori standard

A



C



C

DYNAMIC PLANTAR AESTHESIOMETER Cat. No. 37400

The Dynamic Plantar Aesthesiometer consists of a movable force-actuator below a network platform upon which the operator deposits the rodent (either mouse or rats). A Perspex enclosure renders the ani-

B RODENT & CAT/RABBIT VENTILATORS Cat. No. 7025/6025

The 7025 Ventilator is a positive pressure pump (according to the Starling's ventilation method), designed for the use with guinea pigs, rats, mice and small birds. The 6025 is designed for cats and rabbits. They consist of a variable speed geared motor linked by a novel variable stroke mechanism to an interchangeable cylinder/piston assembly (1,5, 10 or 30 ml for the 7025, 50 or 100 ml for the 6025).

The speed of the motor is precisely regulated by an electronic feedback-controlled drive, thus providing the most accurate and reliable stroke rate control of any respirator available. Care has been taken to insure that electronic noise broadcasting is negligible. Special models provided with suitable circuit for synchronized START/STOP are also available.

*Pompa di Ventilazione per Roditori, completa di cilindro/pistone da 5, 10 o 30ml e accessori standard
Pompa di Ventilazione per Gatto/Coniglio, completa di cilindro/pistone da 50 o 100ml e accessori standard*

B



mal unrestrained for the duration of the experiment. The operator places the actuator beneath the paw (proper placement ensured via an angled mirror). A Von Frey - type filament exerts an increasing force to the plantar surface, starting below the threshold of detection and increasing until the animal removes its paw. At the retraction reflex movement when the paw is withdrawn, the 3740 registers and displays then actual force at which paw withdrawal occurred.

Dynamic Plantar Aesthesiometer, controllato da microprocessore, completo di rete 37400-005 o piattaforma perforata 37400-007 (da specificare in sede di ordine) e due divisori a 4 spazi

A**PLETHYSMOMETER**
Cat. No. 7140

The new Plethysmometer is a micro-controlled volume meter, specially designed for accurate measurement of the rat/mouse paw swelling. It consists of a water filled Perspex cell (several diams. are available for either rats or mice) into which the paw is dipped. A transducer of original design records small differences in water level, caused by volume displacement. The digital read-out shows the exact volume of the paw.

The instruments features direct connection to PC via the optional WinDAS software package.

The optional Mini-Printer 7145 enables the print-out of the experimental data.

Pletismometro, nuovo modello controllato da micro-processore, completo di accessori standard completo di software di acquisizione dati dedicato 52050-02, cavo seriale e adattatore da seriale a USB

**B****ANALGESY-METER**
Cat No. 37215

The 37215 is the up to date of the classical 7200 which, since 1965, in a number of academic and industrial laboratories, is helping to perform a rapid precise screening and analgesic drugs, according to Randall-Selitto Test.

The 37215 features a weight displacing screw driven by a low voltage geared motor, to increase safety, an optical switch to measure the start/stop time-lag (hence the force at which the animal struggles) and to communicate this datum to the Multifunction Printer.

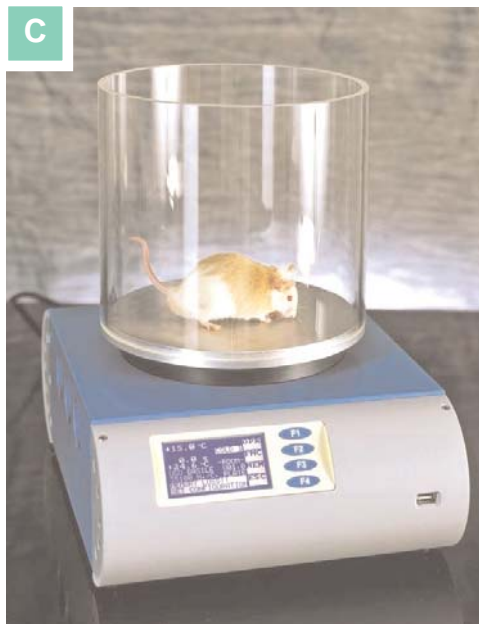
Provision is made for easier and quicker replacement of parts; mains & pedal cables are now detachable, etc.

Analgesimetro Fotoelettrico, completo, nuovo modello

**C****HOT/COLD PLATE**
Cat. No. 35100

This new instrument can be used as a conventional HOT PLATE, to carry out a rapid precise screening of narcotic type analgesic drugs according to the Hot Plate Test devised by N.B. Eddy and D. Leinbach. and as COLD PLATE. The Cold Plate Test is useful in studying the traditional cold receptors. The multifunction liquid-crystal graphic-display monitors the plate temperature in 0.1°C steps and shows the reaction time in 0.1 s increments on the graphic display. The plate temperature can be set by the operator in the range 2-66°C. The 35100 is a microprocessor controlled unit. The experimental data can be directly exported to the PC USB or serial ports. Communication is managed by the dedicated CUB Data Acquisition Software Package, Cat. 52050-11, included as standard. The 35100 is provided with a memory key, for data portability.

Piastra Calda, nuovo modello controllato da microprocessore, completa Hot/Cold Plate (Piastra Calda/Fredda), completo di software di acquisizione dati dedicato 52050-11, cavo seriale e USB

C

A TAIL FLICK UNIT
Cat. No. 37360

This new style Tail Flick Unit has been designed to perform rapid precise screening of analgesic drugs on the rat tail, according to D'Amour & Smith. It basically consists of an I.R. source, whose radiant energy of adjustable intensity is focused on the rat tail.

The rat is held by the operator on the instrument unobstructed upper panel in such a way that its tail, placed over a flush mounted window, receives the I.R. energy. An optional holder is available to be used with the mouse. When the animal feels pain and flicks its tail, the instrument automatically detects the withdrawal latency to the nearest 0.1 s. The 37360 is a micro-processor controlled unit. The experimental data can be directly exported to the PC USB or serial ports. Communication is managed by the dedicated CUB Data Acquisition Software Package, Cat. 52050-09, included as standard. The 37360 is provided with a memory key, for data portability.

Tail Flick, completo



B HEAT-FLUX I.R. RADIOMETER
Cat. No. 37300

The Heat-Flux I.R. Radiometer Cat. 37300 has been designed to calibrate I.R. sources, in particular the classic Tail-Flick Cat. 7360 & Plantar Test Cat 7370 of our make, i.e., to make sure they deliver the same power flux (expressed in mW per square cm) and hence a nociceptive stimulus of the same intensity.

The standard package of this extremely useful accessory is complete with I.R. Probe, Digital Meter, Adaptors for Tail-Flick and Plantar Test (see picture), all parts of this portable self-sufficient instrument neatly lodged in a sturdy plastic case with punched foam lining.

Radiometro



B PLANTAR TEST
Cat. No. 37370 / 37380

The Plantar Test represents a remarkable advance in determination of acute nociceptive thermal threshold in laboratory animals, as it combines the best fea-

res of all other methods of measuring pain sensitivity. Unique to the Plantar Test, the animal is unrestrained and unhandled during experiments.

The 37370 basically consists of a movable I.R. source which the operator glides below a glass pane, upon which a 3-compartment enclosure for rat is positioned; in alternative a 6-compartment enclosure, more convenient for the mouse. The model for mouse is Cat. No. 37380.

When the rat feels pain and withdraws its paw, the instrument automatically detects the withdrawal latency to the nearest 0.1s. The 37370 is a microprocessor controlled unit. The experimental data can be directly exported to the PC USB or serial ports. Communication is managed by the dedicated CUB Data Acquisition Software Package, Cat. 52050-10, included as standard. The 37370 is provided with a memory key, for data portability.



Plantar Test (test di Hargreaves), completo

A HOLE BOARD
Cat. No. 6650

The Hole Board has been conceived to study the behaviour of the mouse confronted with a new environment (head plunging stereotype) according to the method devised by Boissier-Simon.

The test enables the initial exploratory activity of the animal and its variations brought about by psychotropic drugs to be unmistakably assessed.

The recording takes place automatically, via miniature I.R. emitters/receivers embodied in the "holes" of the board.

Print-out via the optional 2600 Multifunction printer.

Piastra a Buchi (Hole Board), completa di unità elettronica 6651

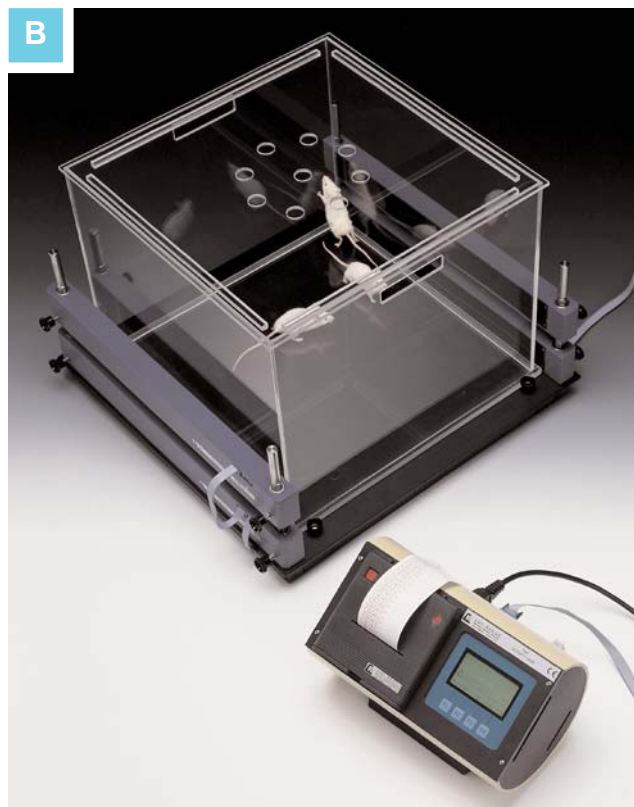
B ACTIVITY CAGE
Cat. No. 7420

The 7420 Activity Cage has been proved of great value to record spontaneous co-ordinate activity in rats and mice (individual or groups) and variation of this activity in time.

The I.R. Beam Array Cage 7420 consists of a cubicle of clear Perspex: two facing blocks containing an I.R. array record the horizontal activity.

A similar System assesses the vertical activity (rearing). Print-out via the optional 2600 multifunction Printer.

Actografo, nuovo modello controllato da microprocessore, completo di unità elettronica 7431, gabbia 7433 e sensori 7435/7436



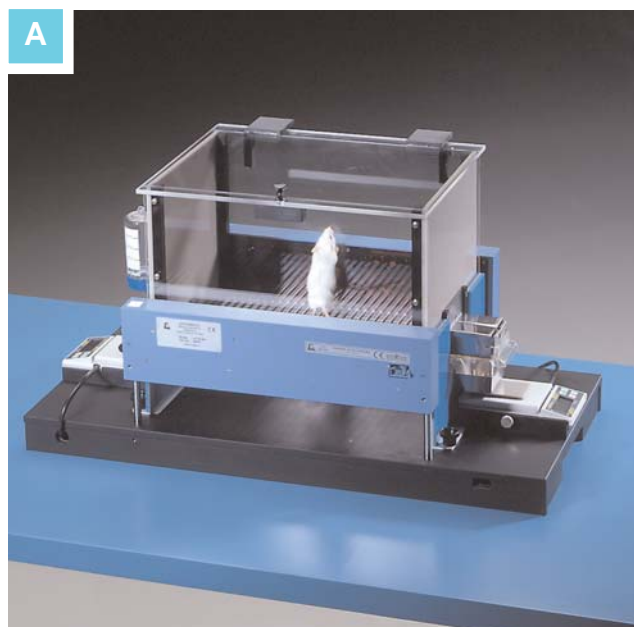
A FEEDING AND ACTIVITY ANALYSER
Cat. No. 47452/47453

The Feeding and Activity Analyser has been conceived for studying the feeding behaviour and the spontaneous co-ordinate activity (via the optional activity sensors) of rodents and their alteration brought about by a number of factors, in investigations about:

- the drugs which produce anorexia
- the addiction/aversion to particular substances
- the thirst arousing and quenching mechanism
- the feeding habits and their modification

The 47452 is designed for one rat; the 47453 is dimensioned for the mouse. The cages route their digitized signals through an electronic unit to a PC for acquisition and analysis via the Cage Monitoring Software (CMS).

Gabbia Topo (Monitoring Cage), completa di distributori di liquido e cibo e di modulo preamplificatore 41700-010. Richiede unità elettronica serie 41700



A METABOLIC CAGE Cat. No. 41700

The well-engineered TECNIPLAST Metabolic Cages supply uncontaminated samples of effectively separate urine and faeces of the rodent. All their components are designed for simplicity of operation and total part interchangeability. Four models are available for either rats or mice. Now these remarkable cages are available complete with arrangements for accurate record of food and water consumption. The cages route their digitized signals through an electronic unit to a PC for acquisition and analysis via the Cage Monitoring Software (CMS). The coordinate ambulatory activity and "rearing" of the rodent on test, can be measured via the optional I.R. Motion detector.

Gabbia Metabolica (41700-002) per ratti fino a 150 grammi, provvista di rilevatori bere/mangiare (41700-012 / 022), e modulo preamplificatore 41700-010. Richiede unità elettronica



B AUTOMATIC REFLEX CONDITIONER Cat. No. 7530

This fully automated apparatus is designed to study conditioned reflex (avoidance reaction) in rats and mice.

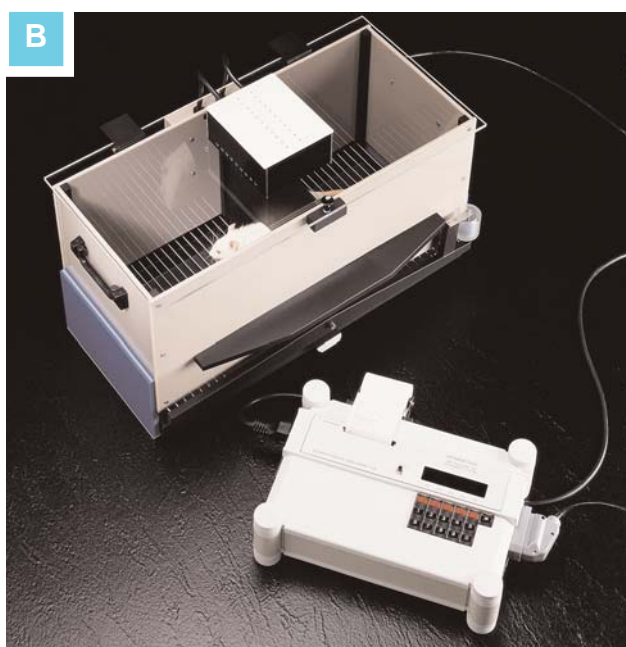
Two types of cages are available, 7532 designed for rats and 7533 for mice. Each cage is provided with acoustic and visual stimulators, which supply conditioning stimuli.

The "reinforcement" consists of an electrical stimulus applied to the floor bars of the cage by a special "static scrambler" circuit.

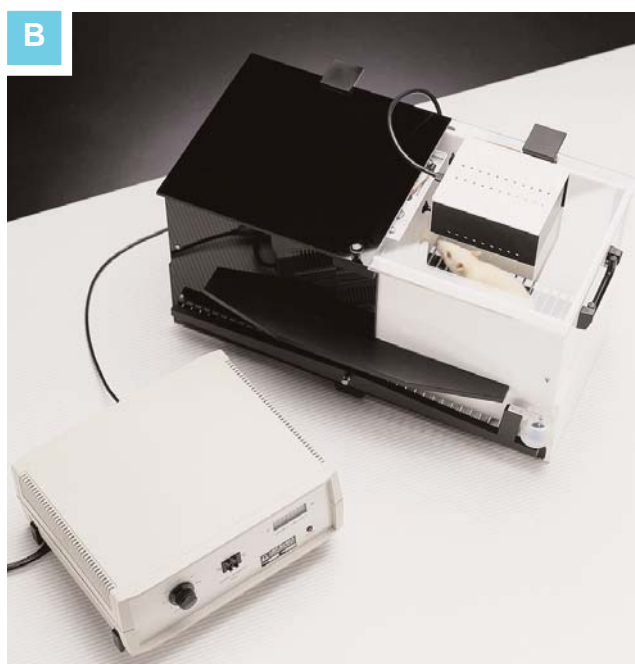
Trial by trial digital and analogical graphics is provided by micro-controlled circuit.

Direct connection to the PC via the 52010 Win-DAS software.

Condizionatore Automatico a Programma, nuovo modello controllato da microprocessore, completo di Unità di Programmazione/Registrazione 7531 e Gabbia Ratto 7532 con Cavo di Collegamento 7537



B



B PASSIVE AVOIDANCE APPARATUS Cat. No. 7550

This friendly to user Passive Avoidance Apparatus which ensures reliability of functions and result reproducibility, exploits the tendency, quite strong in rodents, to escape from an illuminated area into a dark one (step-through method).

It helps in several areas of research: Behaviour genetics, psychopharmacology and behavioural toxicology.

Two cages are available, one for Rats Cat. 7552 and one for Mice Cat. 7553.

A Passive Avoidance Set-up, step-down method, Cat. No. 7570, is also available for mouse. Print-out via the optional 2600 Multifunction Printer.

Set-up per Test Passive Avoidance (metodo step-through), completo di Unità di Controllo 7551, Gabbia Ratto 7552 e Cavo di Collegamento 7537

A GRIP STRENGTH METER

Cat. No. 47105/47106

The 47105 Grip Strength Meter measures forelimb grip-strength in rats. The similar 47106 is dimensioned for the mouse. The effects of drugs, toxins, muscle relaxants, disease, ageing or neural damage on muscle strength may be assessed. The animal is placed over a Perspex plate, in front of a grasping bar; rodents instinctively grab anything they can to try to stop this involuntary backward movement, until the pulling force overcomes their grip strength. After the animal loses its grip, the peak preamplifier automatically stores the peak pull force and shows it on a liquid crystal display. The data supplied by the peak amplifier are available in analogue form.

Grip Strength Meter, per ratto. Completo di preamplificatore di picco, assieme barra/trasduttore e piattaforma con stativo, morsetto (4003) e sistema di fissaggio al tavolo

Grip Strength Meter, per topo. Completo di preamplificatore di picco, assieme barra/trasduttore e piattaforma con stativo e morsetto



B ROTA-ROD TREADMILLS

Cat. No. 47600

The "Rota-Rod" technique has proved to be of great value in research involving screening of drugs which are potentially active on motory coordination. Ugo Basile Rota-Rods are the result of many years of research in co-operation with the latest development in behavioural and pharmacological research. The 47600 new micro-processor controlled Rota-Rod for mice and the 47700 for rats replace both previously available constant speed and accelerating models and features direct PC output.

Rota-Rod per topo, nuovo modello controllato da microprocessore, completo di software di acquisizione dati dedicato 52050-07, cavo seriale e adattatore da seriale a USB



C MULTIFUNCTION PRINTER 2600/2650

The 2600 Multifunction Printer is a micro-controlled device to acquire counting or timing data from six independent channels. The data can be printed on thermal paper in real time and/or routed to the PC via an RS232 connector. 52010 Win-DAS software is required. The 2600 is provided with an internal memory, where the data can be stored to be unloaded later on. This makes the 2600 a truly flexible multipurpose data acquisition system. Each channel can acquire data from instruments which supply counting or timing TTL signals such as Passive.

"Stampante Multifunzione, 6 canali, con microprocessore, per stampa dati e connessione a PC tramite software 52010 (opzionale)

"Stampante Multifunzione, 48 canali, con microprocessore, per stampa dati e connessione a PC tramite software 52010 (opzionale)



A **ECT UNIT**
Cat. No. 57800

The ECT apparatus is specially designed for neurochemical and neuro-pharmacological research.

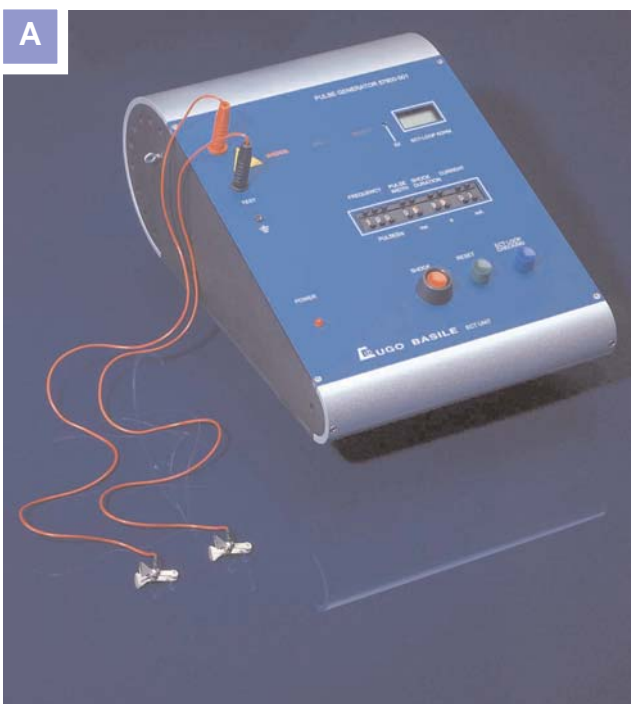
A constant current output is used, which ensures reproducible results and accurate determination of the EC threshold brought about by drugs having a specific action on the cortex and sub-cortical regions.

Auricular electrodes are standard; corneal electrodes can be supplied as optional.

Different types can be manufactured on request.

An Inverter Cat.57800-010 can be supplied, to provide to the experimental animal.

ECT Unit, completo di Unità Elettronica ed Elettrodi Auricolari

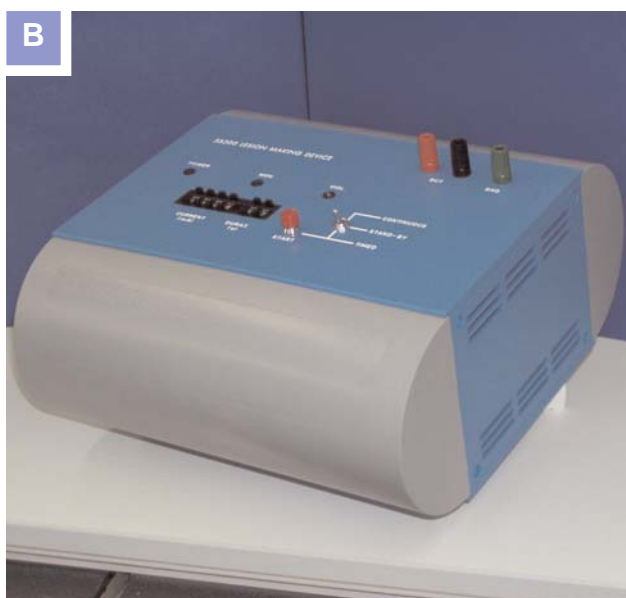


B **LESION MAKING DEVICE**
Cat. No. 53500

This compact, solid state DC lesion maker has been designed for the production of localized lesions in small animal preparations, where DC is preferred to RF output. It features a regulated power supply combined with a constant DC current generator which operates on either continuous or timed mode.

The current generator is protected against short circuit, which prevents the electronics to get damaged due to the electrodes coming accidentally in contact with each other.

Produttore di Lesioni



B



B **BP RECORDER**
Cat. No. 58500

The BP Recorder, which is basically a recording "Riva Rocci sphygmomanometer", has been conceived to provide an objective precise recording of the systolic and diastolic blood pressure of every processed rodent.

The new Ugo Basile model features:

- a pulse-detecting piezo-transducer of superior performances
- an reliable pressure generating and pressure measuring system, lodged in an attractive cabinet of original design
- direct connection to most digital recorders (as PowerLab) for data acquisition and management.

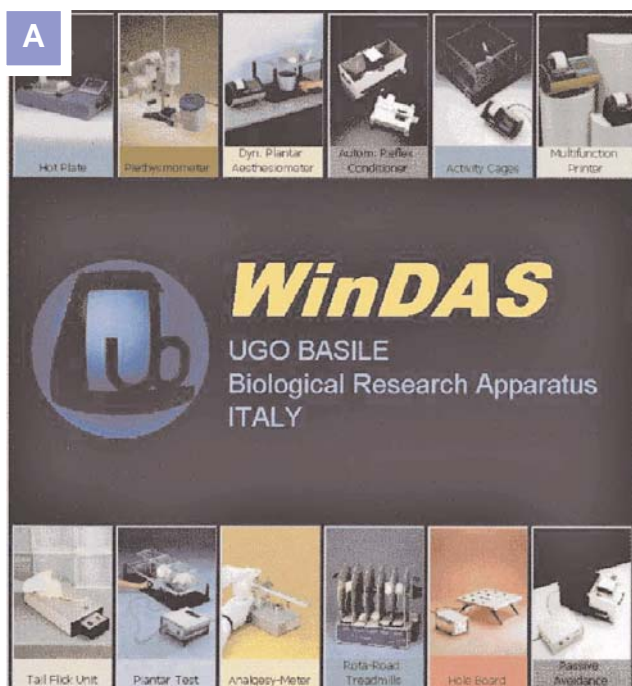
BP Recorder, per la misura e registrazione della pressione incruenta, provvisto di stampante grafica, display grafico, uscita analogica verso registratore digitale (PowerLab o similare).

**A DATA ACQUISITION
SOFTWARE PACKAGE WIN-DAS
Cat. 52010**

The 52010 is a Windows® based Data Acquisition Software Package, which enables the research worker to collect data from Ugo Basile instruments and to store them into individual files on a PC, ready to be easily managed by most statistical and/or analysis packages available on the market (EXCEL, LOTUS, etc.).

The new 2002 version encompasses attractive graphics and friendly to user commands. Multiserial cards are available for recording simultaneously from up to 8 instruments on the same serial port.

Software di Acquisizione Dati Win-DAS (Windows), completo con cavo seriale 7176. Specificare versione: -01 per 2600, -02 per 7140, -03 per 7280, -04 per 7420, -05 per 7530, -06 per 37400, -07 per 47600, -08 per 58500, -09 per 7360-D07, -10 per 7370-D07



**A LABSTANDARD STEREOTAXIC
Cat. No. 51600**

The Stoelting LabStandard can be readily adapted for use with most laboratory small animals. This versatile stereotaxic instrument is fully compatible with a wide range of accessories manufactured by Stoelting and others.

Superior features on the 5160 include bronze bushings on the manipulator guide rods to allow electrical grounding of the whole instrument and enhance stability. A simple universal joint allows the investigator to angle the probe in either the anterior-posterior or the lateral directions. A locking pin enables locking this joint in the straight vertical position. The superior locking mechanism will hold any angled position without slippage.

Stereotassico Stoelting Mod. LabStandard

**B KDS PERFUSION PUMP
Cat. No. 5200**

A new generation of micro-controlled syringe pumps, designed specifically for applications requiring high metering precision at low, pulse-free flow rates. The KDS Pumps provide a unique combination of sophisticated features and advanced micro-stepping motor-drive technology.

Many of the tasks that other pumps do manually are performed automatically: you will find them extremely simple to set up and use and surprisingly affordable.

Available as single, double or multiple syringe units; the picture features Cat. No. 5200 2-syringe model. A simpler and more economic single-syringe model, Razel A-99 Cat. 5000 is also available.

Pompa di Infusione a due siringhe, controllata da microprocessore, Mod. KDS200

