DYNAMIC PLANTAR AESTHESIOMETER

Cat. No. 37450

NEW MODEL, featuring:-

- Computer compatibility: direct connection to a PC, via the dedicated software included as standard
- PC Interface: USB and serial
- Read-out: multifunction liquid-crystal graphic-display
- Data Portability: via the Memory-Key provided with the standard package
- Print-out: by optional panel mount or independent thermal mini-printer
- Universal Mains 85-264 VAC, 50-60Hz

GENERAL

The Dynamic Plantar Aesthesiometer has been designed to assess “touch sensitivity” on the plantar surface of the rodents.

Somesthetic (mechanical) stimulation has a long history of effective clinical use to diagnose pathologies of hyper- or hypo-aesthesia, brought about by drugs, neural pathology or experimental lesions, etc., in model and experimental systems using laboratory animals.

The new model encompasses:-

- a movable touch-stimulator unit well proven in previous model
- a microprocessor controlled electronic unit, of new design provided with graphic display, internal memory for data storage, memory stick and optional printer.
- a large testing surface
- a new modular animal enclosure, offering from 3 to 12 spaces.

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OPERATION

The animal moves about freely in one of the enclosure compartments, positioned on testing surface.

After cessation of exploratory behaviour, the operator places the touch-stimulator below the target area of the animal paw, using the adjustable angled-mirror to position the filament.

Pressing START key provided at both sides of the handle of the touch-stimulator, invokes the following automatic sequence:

a. an electrodynamic actuator of proprietary design lifts a straight metal filament;

b. the filament touches the plantar surface and begins to exert an upward force below the threshold of feeling;

c. the force increases (at the preset application rate), until a stop signal is attained, either the animal removing the paw or the point at which greatest preset force is met.

The actuator filament (0.5mm diameter) produces force over the entire range of all typical aesthesiometer test devices. Paw withdrawal reflex is automatically recorded using two metrics: the latency until withdrawal, in seconds, and the force at which paw was withdrawn, in grams.

BASIC SPECIFICATIONS

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Starting</td>
<td>via keys on the touch-stimulator vessel</td>
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<tr>
<td>Force range</td>
<td>0 to 50.0 grams, in 0.5 g steps</td>
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<tr>
<td>Force increasing rate</td>
<td>adjustable in the interval 1 to 20 seconds, in 1 s steps</td>
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<td>Filament travel</td>
<td>12 mm</td>
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<tr>
<td>Latency time</td>
<td>read-out on graphic display, in 0.1s steps</td>
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<tr>
<td>Connection to PC</td>
<td>through DELTA 9-pin connector</td>
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</tbody>
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DATA ACQUISITION

The 37450 is a microprocessor controlled unit. The experimental data, stored in its internal memory can be directly exported to the PC USB or serial ports.

Communication is managed by the dedicated CUB Data Acquisition Software Package, Cat. 52050-06, included as standard or by the 52010 Win-DAS Software. The CUB Windows®-based Software Package enables the user to route the experimental data to the PC and store them into individual files, to be managed by most statistical analysis packages available on the market.

The 37450 is provided with a memory key, to record all the experimental data of one or more sessions and to program the experiment layouts from a remote PC.

ORDERING INFORMATION

37450 DYNAMIC PLANTAR AESTHESIOMETER, complete with following standard accessories:

- 37450-001 Microprocessor controlled electronic unit
- 37400-002 Touch stimulator, complete with filament actuator and adjustable angled-mirror
- 37450-003 Large Platform with supporting columns
- 37450-005 Framed testing surface (perforated platform
- 37000-006 Modular animal enclosure (3 to 12 spaces)
- 37450-302 Instruction manual
- 37400-321 Set of two 0.5 mm diam. stainless-steel filaments and two calibration weights (5 & 50 g)

E-WP008 Mains Cord
Set of 2 fuses

OPTIONAL

- 37000-145 Panel-Mount Thermal Printer
- 57145 Thermal MiniPrinter
- 37400-305 Paper Roll (package of 10)

PHYSICAL

Universal Mains 85-264 VAC - 50-60Hz - 20 W max.
Total Weight : Kg. 10.20
Shipping Weight : Kg. 18.50 approx.

BIBLIOGRAPHY