



Hole Board

Cat. No. 6650

General

The Hole-Board 6650 has been conceived to study the innate **exploratory behavior** of the mouse confronted with a new environment (head plunging stereotype), according to the classic method devised by Boissier-Simon.

The normal mouse of either gender, when confronted with a new environment, will explore holes in the substrate of its environment by **plunging its head** in and out of the hole a few times, then moving on to the next hole.

The initial exploration activity of the animal and its variations brought about by psychotropic drugs are unmistakably assessed.

The test lasts few minutes and does not require any previous training/conditioning of the animal.



● The classical
“Planche a Traus” Test
by Boissier & Simon

● Quick Test for
Exploratory Behaviour
in Mice

Main Features

- The Hole-Board Test has been conceived to assess the behaviour of the mouse confronted with a new environment and its variations brought about by psychotropic drugs (or genes effects)
- The recording of the “head plunging” stereotype takes place automatically
- A few minute test is sufficient for most screening tests
- No previous training/conditioning required

Instrument Descriptions

The "Méthode de la Planche Trou" devised by Boissier & Simon (see bibliography) can be performed under optimum conditions: the **recording** of the **"head plunging" stereo-type** takes place automatically, via miniature I.R. emit-ers/receivers embodied in the "holes".

The instrument consists of a Board and a Control Unit.

Board 6652

The 40x40 cm board, 2.2 cm thick, is made of grey Perspex. The matt finishing avoids reflections which may alter the behaviour of the animal.

The board embodies 16 "head-plunging detectors", each comprising an I.R. emitter and a diametrically opposed re-ceiver, flush mounted 1 cm below the upper panel.

The dimensioning of this has been optimized for mice in the 15-30 g range, to provide negligible false recordings.

Control Unit 6651

The control unit is lodged into a resilient cabinet whose front panel features the ACTIVITY display, the RESET and TEST keys, the LED visual indicators.

At every head plunging, the ACT (activity) LED blinks and the read-out increases by one digit. A time-constant has been provided to inhibit the circuit to record a rapid up & down nose poking as it were a multiple event.

The figure remains frozen until the operator depresses the reset key again, when placing a fresh mouse on the board.

Data Acquisition

The 6650 Hole Board is provided with a connector for branching it to the **MULTIFUNCTION PRINTER Cat. 2600**, a microprocessor controlled device designed to acquire data from 6 independent channels.

The data, stored in the 2600 internal memory and shown on its graphic display, can be printed out in real time and/or routed to the PC, via the **52050-01 DAS Software Pack-age** provided with the 2600 package.

The **52050** is a Windows® based Data Acquisition Software Package, which enables the research worker to store the data into individual files, ready to be easily managed by most statistical analysis packages available on the market.

Ordering Information

6650 HOLE BOARD, standard package, including:-

6651 Control Unit

6652 Board

6653 Dust Cover for the Board

6654 Dust Cover for the Control Unit

6655 Instruction Manual

E-WP008 Mains Cable

Set of 2 fuses for either 115 VAC or 230 VAC mains

Basic Specs.

Power 115 or 230 V, 50/60 Hz, 15 W max.

Dimensions 40 x 40 x 2.2 (h) cm (board)

26 x 15 x 25 (h) cm (controller)

Weight 5.50 Kg

Shipping Weight 8.50 Kg approx.

Bibliography

Method Paper

- J.R. Boissier et P. Simon: "**Dissociation de deux composantes dans le comportement d'investigation de la souris**" *Arch Int. Pharmacodyn* 147, No. 3-4, 1964.
- J.R. Boissier et P. Simon: "**L'utilisation d'une réaction particulière de la souris (Méthode de la planche à trous) pour l'étude des médicaments psychotropes**" *Thérapie XIX*, 571-589, 1964.

Papers Mentioning 6650

- N. Meiri et alia: "**Reversible Antisense Inhibition of Shaker-like Kv1.1 Potassium Channel Expression Impairs Asso-ciative Memory in Mouse and Rat**" *Proc. Natl. Acad. Sci. USA*, 94, 4430-4434, 1997.
- L. Jasmin et alia: "**The NK1 Receptor Mediates Both the Hyperalgesia and the Resistance to Morphine in Mice Lacking Noradrenaline**" *Proc. Natl. Acad. Sci. USA*, 99(2), 1029-1034, 2002.
- A. L. da Silva & E. Elisabetsky: "**Interference of Propylene Glycol with the Hole-Board Test**" *Brazilian J. Med. Biol. Res.*, 34(4), 545-547, 2001.
- H. Shaheen et alia: "**Effect of Psidium Guajava Leaves on Some Aspects of the Central Nervous System in Mice**" *Phytotherap. Res.*, 14(2), 107-111, 2001