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MOTORY COORDINATION, ACTIVITY, GRIP STRENGTH

Hole Board

Cat. No. 6650

Cat. No. 46653 for Videotracking

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 **poking its nose** 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 nose poke frequency provides an indicator of exploratory behavior.

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

A model with no recording unit is also available; the non-reflecting surface makes it particularly suitable or Videotracking. Ask for Cat. No. 46653.



- Quick Test for Exploratory Behavior in Mice

- The classical “Planche à Trous” Test by Boissier & Simon

Main Features

- The recording of the “nose poking” stereotype takes place automatically
- A few minute test is sufficient for most screenings
- No previous training/conditioning required
- A specific model for Videotracking is available

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Instrument Descriptions

The "Méthode de la Planche à Trous" devised by Boissier & Simon (see bibliography) can be performed under optimum conditions: the recording of the "head plunging" or "nose poking" stereotype takes place automatically, via miniature I.R. emitters/receivers embodied in the "holes".

The instrument consists of a "Board" and a Control Unit.

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.

Board 6652

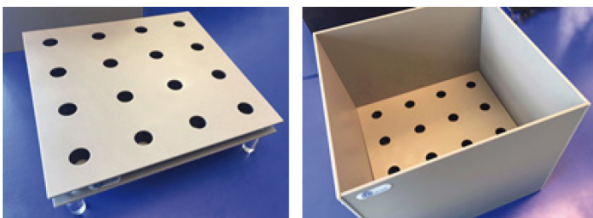
The 40x40 cm board, 2.2cm thick, is made of grey Perspex. The matt finishing avoids reflections which may alter the behaviour of the animal.

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

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

Special Model for Videotracking

A special model of Mouse Hole-Board is also available, with no electronics, ideal for Videotracking.



The **46653** is a simple open field, dimensioned 40x40cm, with 16 holes diam 3cm, spaced 10cm apart (from center to center), enclosed in transparent (or opaque) walls. The non-reflecting surface makes it particularly suitable for Videotracking.

A similar model, the **46652**, is also available, dimensioned 1mx1m, 35cm high, 16 holes diameter 3.8cm, to test rat exploratory behavior.

Ordering Information

- 6650** HOLE BOARD, standard package including:
- 6651** Control Unit
- 6652** Board
- 6655** Instruction Manual (on USB key)
- E-WP008** Mains Cable

Basic Specs.

Power	15 or 230V, 50/60Hz, 15W max.
Dimensions	40x40x2.2(h)cm (board) 26x15x25(h)cm (controller)
Weight	5.5Kg
Shipping Weight	10Kg approx.
Packing	67x42x53cm

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

- E.D. de Oliveira et alia: "Mechanisms Involved in the Antinociception Induced by Spinal Administration of Inosine or Guanine in Mice" *Eur. J. Pharmacol.* 775: 71-82, 2016
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- P. Santos et alia: "Anxiolytic Properties of N-acetylcysteine in Mice" *Behav. Brain* 317: 461-469, 2016
- O.D. Can et alia: "Anti-depressant-like Effect of Vitexin in BALB/c Mice and Evidence for the Involvement of Monoaminergic Mechanisms" *Eur. J. Pharmacol* 699 (1-3): 250-257, 2013