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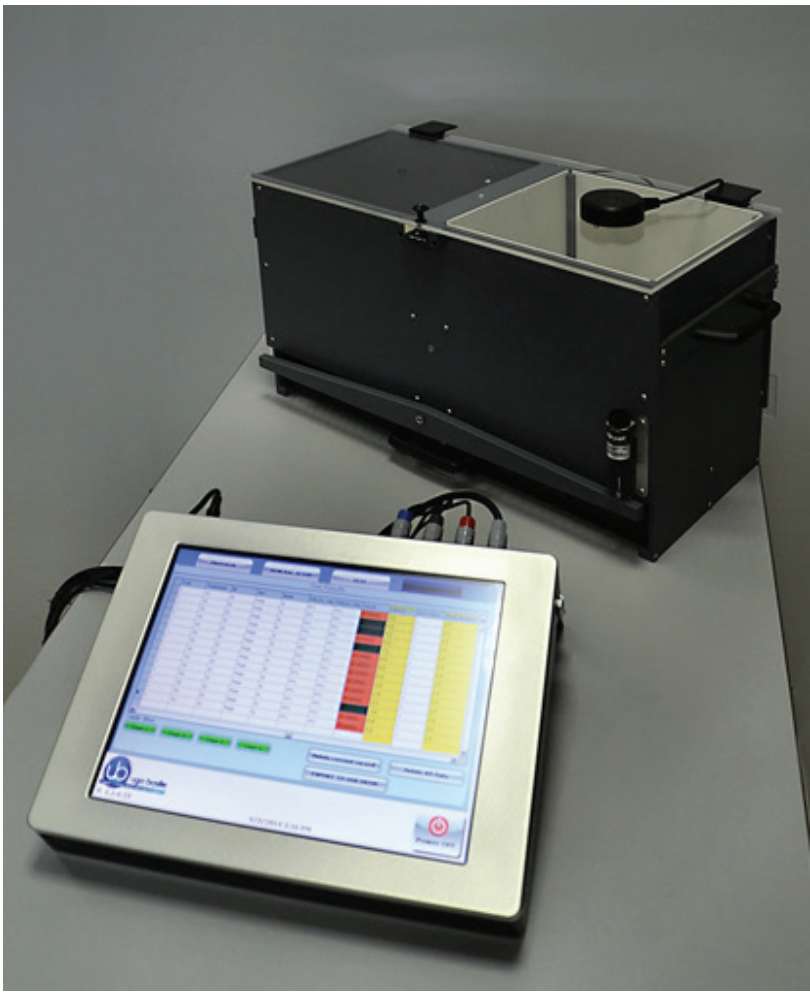
BEHAVIOUR, CONDITIONING, REWARD

Passive Avoidance
Step-Through *New Model*

Cat. No. 40550



General

Passive Avoidance Test is used to assess memory function based on the association formed between a specific environmental context, which the animal learns to avoid, and an aversive stimulus, represented by a mild foot shock.

The tests are conducted in a two-compartment apparatus, where one is dimly lit and preferable to a rodent, and the other is brightly lit.

After the training period, during the test proper, the animal that learned the task will avoid the location previously paired with the aversive stimulus, and show greater latency to enter it.

Ugo Basile Passive Avoidance set-up instrument basically consists of a Controller, and a Cage divided into two compartments by a partition which embodies a sliding door.

The tilting floor ensures a simple and relaible detection mechanism to score the animal's movement across the two compartments.

Step-Through Cage

Multiple-Cage Set-up

EFFICIENT, RELIABLE INSTRUMENT FOR THE CLASSIC PASSIVE AVOIDANCE TEST

tip! this is part of the beehive cage-manager system; buy a single touch-screen controller, and manage all UB conditioning cages. Ask for details!

Main Features

- The electronic unit encompasses all controls for **up to 4 animal cages!**
- **Silent and automated sliding door to divide the two compartments (no stepping motor!)**
- **Reliable tilting-floor detection mechanism**

NEW on the 2014 version!

- The new "launcher" application, makes it possible to manage other UB behavioral cages with the same **Touch-Screen Controller 40500-001**; just purchase the hardware and the application software for the additional test!
- **Remote Control feature** will make remote service and software upgrades extremely simple!

Ugo Basile: more than 25,000 citations

Instrument Description

Different set-ups, depending on animal (rat or mouse) and number of cages, can be obtained by combining the following elements:

- **Programming/Recording Unit with Shocker**
- **Rat Cage** (up to 4 with one controller)
  or
- **Mouse Cage** (up to 4 with one controller)
- **Expansion Box**, for multiple cage set-up

Programming/Recording Unit

The **40500-001** Programming/Recording Unit, encompassing all controls, incorporates a constant-current high precision 8-pole shocker, and manages data acquisition: data are stored inside the unit and can be downloaded via the USB key provided as standard, for further processing via Excel, Access, etc.

The Unit, incorporating a 12" touch-screen, manages the Passive Avoidance Test via the **40550-010** Software. Up to 4 cages can be connected to the same Controller.

If more than one cage is connected, an expansion box **40500-005** is required for each additional cage.

Passive-Avoidance Cage (step-through)

Two types of cages are available:

- **40552** designed for **Rats**
  dimensioned 57x27x30(h)cm, I.D. 48x20x22(h)cm
- **40553** designed for **Mice**
  dimensioned 47x18x25(h)cm, I.D. 38x9x17(h)cm

The cage is divided into two sections, the **START** and **ESCAPE** compartments. The start compartment is white and **illuminated** by a light fixture (3LED, white-light); the escape compartment is **dark** and its grid floor is connected to the shocker.

The two compartments are divided by a partition which embodies an automatically operated sliding door at floor level. The **door delay** and the **shock parameters** can be preset on the touch-screen of the controller, according to experience or data suggested by the literature.

With the rodent in the START compartment, the START button activates the timer, providing the **opening of the door** after the preset delay.

The opening of the door enables the **latency timer**, which stops at the animal crossing; latency time is displayed in 0.1s steps. The door shuts one second after the crossing, to prevent the the animal being upset or hurt by a too close door operation.

Ordering Information

40500-001	**Programming/Recording Unit** & Shocker
40550-010	**P.A. Software** and activation
40552	**Rat Cage**, complete with catch pan & sliding door assembly
40553	**Mouse Cage**, complete with catch pan & sliding door assembly
40500-005	**Expansion Box**, for multiple cage set-up

Specifications :

Latency Time	5-digit Read-Out, 0.1s steps
Door Delay	1-300s, in steps of 1s
Shock Duration	0.1-9.9s, in steps of 0.1s
Shock Intensity	0.1-3mA
CutOff Time	0-600s, in steps of 1s
Shock/Pulse Paulse	0-9.9s
Shock/Pulse Train	0-9 trials

Physical:

Weight	2.7Kg	(40500-001)
	5.3Kg	(40552)
	3.4Kg	(40553)
Shipping Weight	4Kg	(40500-001)
	9Kg	(40552)
	5.8Kg	(40553)

Bibliography

Papers which quote Ugo Basile P.A. Test (step-through)

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- R.W. Flint et alia: "**NMDA receptor antagonism with MK-801 impairs consolidation and reconsolidation of passive avoidance conditioning in adolescent rats: Evidence for a state dependent reconsolidation effect**" Neurobiology of Learning and Memory 101: 114-119, **2013**
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