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 reliable detection mechanism to score the animal’s movement across the two compartments.

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!
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.

Programming/Recording Unit, the 40500-001, 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 Pause: 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)