Passive Avoidance Box to Assess Working Memory

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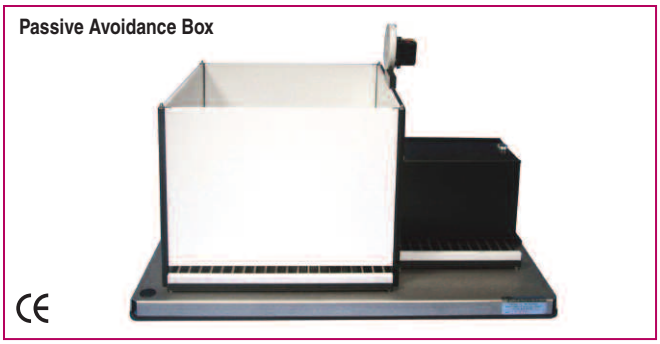

Key Features

- Weight transducer technology for accurate animal detection
- Very precise and stable intensity of shock delivered into the black compartment
- Neither PC interface nor PC cards are required
- Safety system which guarantees that the shock intensity received by the animal is always the same value independently of the grid bars treaded

Parameters Measured

- Latency to enter into the black compartment

Components Included

- Passive avoidance box
- Control unit with RS-232 communication port
- Motorized door (to be controlled either by LE2708 or ShutAvoid software)
- SeDaCom software
- Cables and connectors
- Instruction manual
- 2 year warranty

Options

- LE2708 avoidance programmer including shocker
- ShutAvoid software to control up to 8 active or passive boxes
- LE10026 shocker unit with scrambler (0-2mA output)

Passive avoidance is fear-motivated tests classically used to assess short-term or long-term memory on small laboratory animals (rat, mice).

Passive avoidance working protocols involve timing of transitions, i.e. time that the animal takes to move from the white compartment to the black one after a conditioning session. During the conditioning session, entry into the black compartment is punished with a mild inescapable electrical shock.

Our passive avoidance box (LE870/872) is defined by a large white illuminated compartment and a small black dark compartment separated by a guillotine gate. The animal's position is detected by using high sensitivity weight transducers providing higher effective and reliable detection of animal responses (zones entries) than systems based on photocells beams or on grid floor displacements.

Panlab/Harvard Apparatus Passive Avoidance boxes may be controlled either through LE2708 Programmer or ShutAvoid software. The first option is recommended for one single box set-ups, and may be combined with the included SeDaCom software. SeDaCom enables data transfer from the programmer to a PC through a RS-232 port. The connection is direct between programmer to a PC. No PCI card is needed! The link is carried out by one only cable from one Box to the other. The first Box is connected to PC or Laptop by the port RS-232 or USB. The second option is suitable for controlling a number of boxes simultaneously.

Specifications

Mouse Box Dimensions	250 (W) x 250 (D) x 240 (H) mm white compartment; 195 x 108 x 120 mm black compartment
Rat Box Dimensions	310 (W) x 310 (D) x 240 (H) mm white compartment; 195 x 108 x 120 mm black compartment
Minimum Weight Detected	10 grams (mouse box); 40 grams (rat box)
Material Composition	Methacrylate, aluminum, stainless steel
Computer Requirements (with SeDaCom)	PC (Windows® 95, 98, ME, NT, 2000 and Vista)
Maximum Number of Stations	8 stations connected to a PC
Connection of Several Units to PC	Neither PC interface nor PC card are required. One cable connects all units to the PC
Certifications	CE compliant
Power Supply	110 V/220 V, 50/60Hz

Order #	Model	Product
PY2 76-0199	LE870	Passive Avoidance Cage, Rats
PY2 76-0200	LE872	Passive Avoidance Cage, Mice
Options		
PY2 76-0201	LE2708	Avoidance Programmer with Shocker Unit Included
PY2 76-0202	SHUTAVOID	Software to Control up to 8 Active/Passive Boxes
PY2 76-0159	LE10026	Shock Generator with Scrambler, 0-2 mA Output

Citations

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Rueda N et al (2008) Effects of chronic administration of SGS-111 during adulthood and during the pre- and post-natal periods on the cognitive deficits of Ts65Dn mice, a model of Down síndrome. Behav. Brain Res. 188(2):355-367 (Mouse, Spain)

Tramullas M et al (2008) Facilitation of avoidance behaviour in mice chronically treated with heroin or methadone. Res. Rep. 189(2):332-340 (Mouse, Spain)

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