

Lickometer - Vogel Test

Cat. No. 45100 Set-up for Rat

Cat. No. 45150 Set-up for Mouse

General

The **Ugo Basile Lickometer - Vogel Test** is a versatile system that can function as a simple software-based lickometer or as a Drinking-Conflict set-up to assess the anxiolytic effect of drugs.

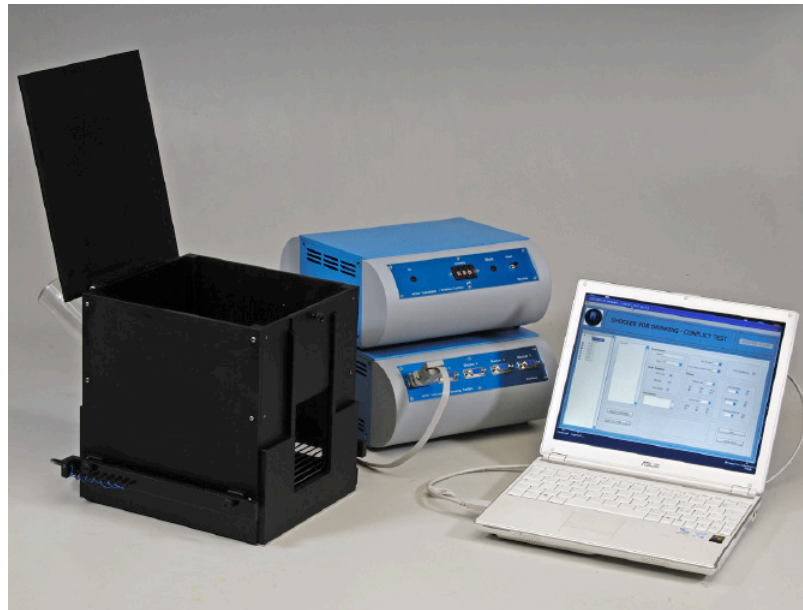
In the Drinking-Conflict Vogel paradigm, a water deprived animal is exposed to a lickometer and the licking events are coupled to electric shocks.

The animal is in a motivationally conflicting situation, hence his licking behavior is affected by anxiety and anxiolytic drugs.

The Lickometer controller and software can manage up to 5 animal cages for either rat or mouse; one shocker is required for each cage.

The friendly-to-user software, provided as standard, manages the system and experimental configuration, collects and saves the experimental data, and provides a detailed report.

Data are saved as .csv file and .rpt file (a proprietary format which can be opened only within the Lickometer software)



Specific Models

for Rat

for Mouse

- Vogel Conflict Test
- Lickometer
- Anxiety Testing
- Multiple Chambers

Main Features

- Up to 5 animal chambers with grid floor, lick sensor, water reservoir
- Software for experiment configuration and data collection
- Two-pole shockers with adjustable shock intensity
- Chambers can be used as a general lickometer

Rationale of the Test

The Drinking Conflict Vogel test usually consists of three phases:

- Initial wait (triggered by the first licking event)
- Shock phase (the sipper is electrified)
- No-shock phase (no shock is associated to drinking)

For each phase of the experiment, the number and the timing of licking events is recorded and graphically displayed.

The alternation between shock and no-shock phases can be based on TIME or N° OF LICKS, according to the user experimental paradigm.

When no shock is delivered, the system can be simply used as a software-driven lickometer.

The duration of each phase is user-defined for each cage, based either on time or on the animal behaviour (i.e. the sipper is electrified after a defined number of licking events have occurred).

At the end of the test a report will summarize the results; these results can be automatically printed and exported into a spreadsheet.

System Components

The system is composed of:

- USB-Control Unit for up to 5 cages, including
 - Software
- Drinking Conflict Cage
- 2-Pole Sine-Wave Shocker

Animal Cages

Drinking-conflict cages are provided with grid floor, electrified sipper and lick sensor. Two sizes are available, for rats and mice.

The rat cage inside dimensions are 35(w)x25(d)x30(h)cm.

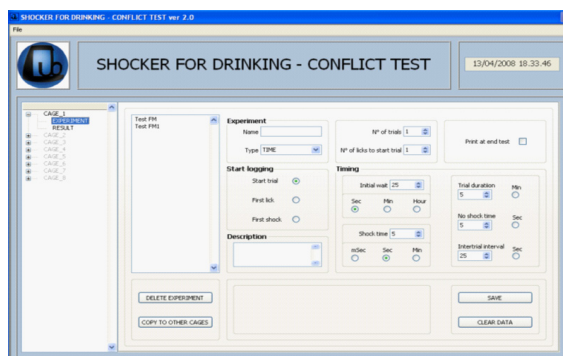
The mouse cage is dimensioned 20(w)x24(d)x20(h)cm.



Lickometer Software

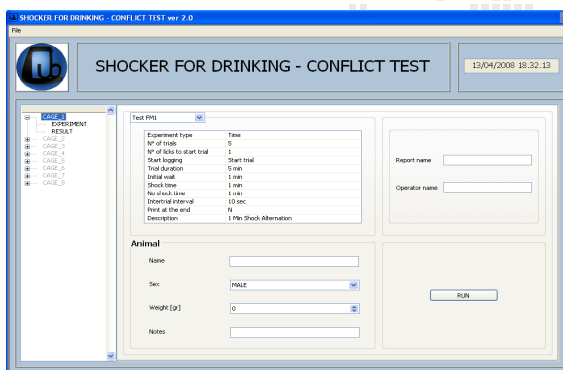
The following parameters, which define the experimental configuration can be set via the software for each cage:

- Trial duration
- Initial Pause
- Time Intervals with and without shock
- Number of licks to deliver a shock etc.



Experiment configuration

For each cage, it is possible to assign a specific name to report, operator and animals involved in the experiment; sex and weight of the animals can also be specified.



Cage configuration

The software collects the experimental data and saves them as .csv file & .rpt file (the latter a proprietary format which can be opened only within the Lickometer software). A complete report file is provided at the end of the experiment; results can be automatically printed and exported into a datasheet.

Ordering Information

45100 Lickometer Set-up for RAT, one cage, including:

- 45100-002 Rat Cage**
- 45100-001** 5-channel Electronic Unit
- 45100-005** Software
- 45100-004** Shocker
- 45100-302** Instruction Manual

45150 Lickometer Set-up for MOUSE, one cage:

- 45100-003 Mouse Cage**
- and other components as for 45100**

Physical	45100	45150
Weight	8.5Kg	7.5Kg
Packing	80x60x44cm	80x60x44cm
Shipping Weight	12Kg	10Kg

Bibliography

- P. Ohara et alia: "Evidence for a Role of Connexin 43 in Trigeminal Pain Using RNA Interference In Vivo" J. Neurophysiol 100: 3064-3073, **2008**
- J.P. Vit et alia: "Silencing the Kir4.1 Potassium Channel Subunit in Satellite Glial Cells of the Rat Trigeminal Ganglion Results in Pain-Like Behavior in the Absence of Nerve Injury" J. Neurosc. 28(16): 4161-4171, **2008**