

Приборы исследования тревоги и депрессии

Описание

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Shocker (Panlab)

The LE 100-26 is an electric shock generator used in a wide variety of Panlab apparatus for assessing behavior in laboratory animal.

- Highly controlled shock intensity
- Adjustable shock intensity and duration
- Electronic Scrambler 6 channels (or grid bars)

Item No.

Description

76-0159

(LE10026) Shock Generator with Scrambler



DETAILS



The LE 100-26 is an electric shock generator used in a wide variety of Panlab apparatus for assessing behavior in laboratory animal.

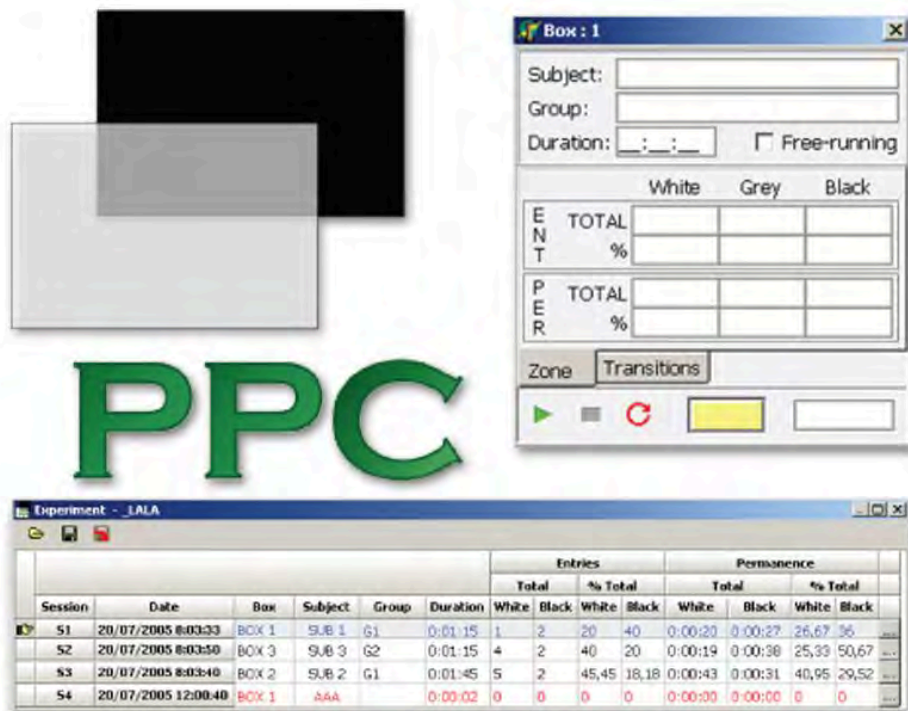
The shock is generally applied to the bars of the floor grid of the Experimentation Cages. The electric shock is made of rectangular current pulses switching consecutively over 6 bars (scrambler). Current is isolated with respect to ground, as a basic safety precaution to avoid electrical interference with other equipment. The output current depends entirely on the value selected by the user and not the resistance of the animal or the number of bars it is touching when it receives the electric shock, thereby ensuring that the repeatability of the electric shock is maximized. The time duration of the electric shock is also adjustable.

PPCwin Software (Panlab)

PPCWIN software for conditioned place preference and black and white test in rodents.

- Easy-to-use software for standard conditioned place preference experiments
- For both place preference and black and white experiments
- A test mode enables immediate checking of the communication between the software and the experimental chambers.
- Current animal position can be visualized in real-time during the acquisition of data
- Provides integrated results
- Tables of result easily exportable in Excel format for further analysis
- RS232 or USB port direct connection

Item No.	Description
76-0011	(PPCWIN V2.0) Software for Control and Data Analysis (needed for Automated models)



DETAILS

The PPCWIN software is an easy-to-use and complete software for monitoring Conditioned Place Preference (or aversion) tests and Black and White experiments (for anxiety). It has been specially designed to work with the Panlab Automated Place Preference and Black and White boxes equipped with weight transducers for the automatic detection of animal position.

PPCWIN controls independently up to 8 experimental chambers. The system includes a test mode enabling immediate and reliable checking of the communication between the software and the experimental chambers.

The Place Preference and Black and White boxes are basically divided in two different compartments connected by a grey corridor/door, respectively. One experiment can be composed of several sessions, depending on the number of experimental groups and animals per group used in the study. PPCWIN is easy to configure as the user only needs to enter the desired duration of experiment and some specific information about the session (subject name, group...). During data acquisition, information about protocol state, animal position and current data can be visualized for each cage on the corresponding control window.

PPCWIN provides a raw data table with all the standard parameters for conditioned place preference

and black and white experiments (permanence time in the compartments, number of entries) and a detailed chronological sequence of animal displacements for each session. A report table can be generated containing the results from different stored sessions. Data from the tables of results can be easily exported in formats widely used to perform complementary analysis.

PACKWIN Software (Panlab)

Handy software for standard operant conditioning and behavioral procedures en small laboratory animals.

- Even more user-friendly interface!
- Aperture assistant and experimental tool bar
- Modular structure (targeted to specific experiments or fully customizable)
- Straightforward "State-Editor" tool for protocol configurations (no need of specific programming skills)
- Assistant panels and specific reports for 5/9 holes procedures, Vogel test, fear conditioning and startle reflex studies
- Operant chamber simulator tool (unique feature in the market!)
- Test boxes function for hardware checking purpose
- Built-in Yoked procedure settings
- Optimal data traceability
- Integrated potent analysis module and plot makers
- Batch analysis and direct exportation to Excel (1 session per row)

Item No.	Description
76-0002	(PACKWIN V2.0) Software Platform for behavior/operant boxes – Needs Experimental Modules
76-0592	(PACKWINCS) Customized Experimental Module (Fully Customizable Protocol and Data Report Edition)
76-0593	5/9 Holes Experimental module (5-Choices Serial Reaction Time task)
76-0594	(PACKWINVT) PACKWIN Vogel Test Experimental Module (Standard Asistants and Data Reports for Pre-test y Test Protocols).

Item No.**Description**

76-0701

Fear conditioning Experimental module

76-0702

Startle reflex Experimental module

**DETAILS**

PACKWIN is a user-friendly and versatile Software platform developed with the aim to offer a powerful tool for conducting a wide range of experiments in different types of behaviour chambers. It typically controls the Panlab standard chambers for operant conditioning, self-administration, 5/9 hole and Vogel test, but its range of compatibility allows working with other behavioural chambers for Active/Passive avoidance and fear conditioning experiments...

Due to his new modular structure, PACKWIN 2.0. can be used in a highly flexible structure (Customised module "CS") allowing the experimenter to build a wide variety of different protocols for the configuration of basic programs for operant procedure (fixed and variable ratio, fixed or variable interval, fixed or variable DRL, positive and negative reinforcement, extinction, probability to obtain a reinforcement, etc.) with or without discriminative stimuli (light, sound) as well as more specific and

complex user-defined protocols (conflict, DMTS, 5 choice serial reaction task etc.). Give the PACKWIN state-editor tool the opportunity to surprise yourself by its straightforwardness (no need of specific programming skills)!! A great number of editable raw data table and output numeric data&graph reports are provided integrated in the all-in-one structure of the software.

PACKWIN 2.0. also offers new specific experimental modules providing convenient protocol editor templates and ready-to-use run panels and data reports directly targeted to specific standard experiments such as the 5-choice Serial Reaction Time Task (5/9 hole module "HO) and the Vogel test.

In PACKWIN 2.0 version, a step ahead has been made in terms of user-interface and features that no other software available in the market can offer right now: new aperture assistant and experimental tool bar for guiding the user along the experimental process, new chamber simulator for checking your protocols without interrupting the data acquired from the real chambers, new batch analysis features for increasing the productivity of your experiment, integrated numerical and graph reports, direct exportation to Excel... and many other essential functions!!!!!! Who told you that performing operant conditioning studies was only reserved to experts?

PACKWIN 2.0 is not exclusive to Panlab chambers! Contact us for more information about how to use PACKWIN with your existing set of operant chambers (compatibility with Coulbourn and Med Associates chambers...)

IMMO Board (Panlab)

A new design for optimizing immobilization procedures for psychological stress studies in rodents

- Emotional stress of unmatched intensity
- Enhanced quality of the psychological component of stress
- Minimizes animal lesion and escaping (no physical stress induced)
- Optimal homogeneity and reproducibility in the results
- Easily adaptable for mouse of any sizes
- Easy to clean, odour-resistant material

Item No.	Description
76-0442	(IMMO) Immobilization Board



Forced immobilization is commonly used as a model of stress in small laboratory animals, especially for producing psychological stress. In this context, the Panlab IMMO BOARD is an adaptation of the standard immobilization board used in neuroendocrinological and behavioural studies in rats and mice (Kvetnansky and Mikulaj, 1970; Chesnokova et al, 1998; Golub et al, 2004).

The IMMO BOARD consists in a central board made with non-porous (odour-resistant) material provided with 4 movable arms for animal paws fixation. The fixation of the paws is obtained through the use of adhesive tape. The animal whole body is gently maintained in place using a velcro ribbon. Four paws insure the stability of the board and makes easier to passage of the ribbon all around the structure for getting optimal animal immobilization.

The new design* proposed aims to solve all the reported problems associated with the use of the common immobilization boards existing in the field making the IMMO BOARD an attractive alternative to procedures using standard cylindrical restrainers: unmatched quality provided for animal restraint (avoid animal lesion and escaping), enhance the quality of the psychological component of stress obtained and get optimal homogeneity and reproducibility in the results.

* developed with the collaboration of the Centre of Genomic Regulation (CRG - Mara Dierssen group) and the Autonomous University of Barcelona (UAB - Universitat Aut noma de Barcelona - Antonio Armario group)

SEDACOM Software (Panlab)

SEDACOM is a polyvalent and straightforward communication software for stand-alone equipment.

- Polyvalent data transfer software
- RS232/USB communication
- Informative Experiment Header exportable in the data reports
- Runtime panels using tabular structure for saving time in the data post-analysis process
- Editable fields for Subjects and Groups information
- The data can be saved in a new experimental file (SED) and opened later for adding a new set of data
- Direct exportation to Excel, txt and htm formats for further data processing, statistics and presentation
- Configure & control your device (IR actimeter, Treadmill, etc.) directly from SEDACOM
- USB Installation and License key (everything included in 1 USB key)

Item No.

Description

76-0406

SEDACOM Software V2.0



DETAILS



The SEDACOM 2.0 is a very easy, convenient and cost-saving data transfer software providing an ideal environment for visualizing the registered data on a computer and exporting them in a format that simplifies any further post-analysis processes. SEDACOM increases the functionalities of the devices, saving and listing automatically all the data of the current or stored sessions.

SEDACOM can be used with a wide range of Panlab products for measuring physiology and behaviour in small laboratory animals (motor activity, pain sensitivity, body temperature, memory etc.)

The name of SEDACOM comes from SERIAL DATA COMMunication, due to the direct communication via an RS232 serial port connection between Panlab devices and computers. Optional accessories allow use of an USB stick to conduct experiments with a laptop.

SEDACOM can acquire data simultaneously from up to 9 devices, limited only by the number of series ports available on the computer. An additional hub or board with serial ports (not included) can be installed to expand the number of connections. SEDACOM will automatically recognize the number of systems connected.

Configure & control your device (IR actimeter, Treadmill, etc.) directly from SEDACOM

Forced Swimming Test Cylinders (Panlab)

Forced Swimming Test Cylinders for screening anti-depressive effects. We provide several different sized transparent cylinders for the forced swimming test.

- Standard transparent cylinder
- Available in customized sizes by special order

Item No.	Description
76-0471	Small Cylinder with Base for FST Experiments
76-0472	Medium Cylinder with Base for FST Experiments
76-0494	Large Cylinder with Base for FST Experiments



DETAILS



The forced swimming test is a relatively simplistic and widely used model for testing depression. The forced-swimming paradigm was originally adopted by Porsolt et al. (1978). Naïve rats and mice forced to swim in a transparent cylinder (aversive and confined environment) innately fight to escape the apparatus. Following failed attempts to escape, they become immobile (i.e. float), a behavior generally considered as despair or “depressive-like”. Prior treatment with antidepressants decreases the time spent immobile and increases the latency to reach the first immobility episode.

We provide several different sized transparent cylinders for the forced swimming test. All cylinders are made of Perspex acrylic.

SPECIFICATIONS



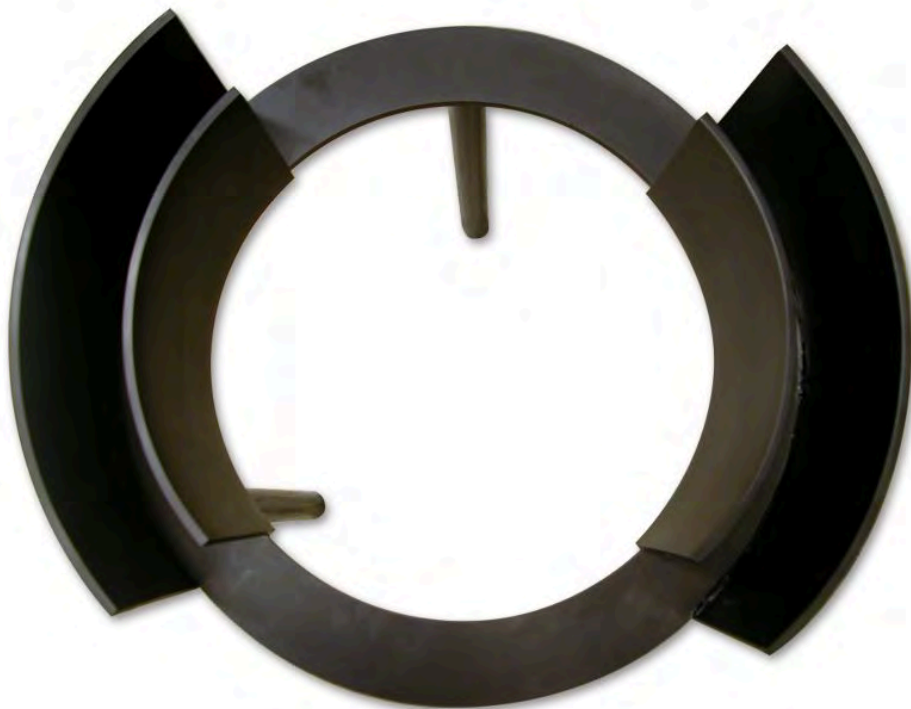
Item #	Dimensions
76-0471	10 x 25 cm (4 x 10 in)
76-0472	20 x 50 cm (8 x 20 in)
76-0494	30 x 50 cm (12 x 20 in)
All cylinders are made of Perspex acrylic.	

Elevated Zero Maze (Panlab)

The standard elevated zero maze (or elevated O-maze) is a variation of the elevated plus maze used to assess anxiety-like behavior in small laboratory animals (rat/mice).

- Floors with different color included (black and grey) and non-reflecting material for optimizing video-tracking studies
- Odour-resistant material

Item No.	Description
76-0680	Elevated zero maze, Rat
76-0369	Elevated zero maze, Mouse



The standard elevated zero maze (or elevated O-maze) is a variation of the elevated plus maze used to assess anxiety-like behavior in small laboratory animals (rat/mice).

In this task, the conflict between the innate fear that rodents have of open areas versus their desire to explore novel environments is exploited. Security is provided by the closed arms whereas the open arms offer exploratory value. When anxious, the natural tendency of rodents is to prefer enclosed dark spaces to opened brightly lit spaces. In this context, anxiety-related behavior is measured by the degree to which the rodent avoids the unenclosed areas of the maze.

The Panlab zero maze is a cycling corridor elevated above the floor and provided with two open areas and two closed areas. The maze is made of odour-resistant black perspex material with non-reflective colour for eliminating any glare.

The elevated zero maze can be used with a video tracking system such as the Panlab SMART video-tracking software. The maze is provided with a set of gray floor for optimizing the detection of darker animals in this context.

SMART Video Tracking System (Panlab)

SMART is a complete and user-friendly video tracking system for evaluating behavior in experimental animals.

- Standard solutions in Neuroscience
- Tracking, Activity & integrated behavior
- The most user-friendly in the market!
- Flexibility, Productivity, Traceability
- Customized solutions for any application and budget
- Optimal cost/performance ratio!
- Built-in Digital Video Recorder
- Remote START/STOP control included

Item No.	Description
76-0696	Smart V3.0 Super Pack
76-0697	Smart V3.0 Premium Pack
76-0681	SMART platform (needs experimental module)
76-0682	Customizable Experimental Module
76-0688	Open Field Preconfigured Module
76-0690	Water Maze Preconfigured Module
76-0689	Plus Maze Preconfigured Module

Item No.	Description
76-0691	T/Y Maze Preconfigured Module
76-0692	Place Preference Preconfigured Module
76-0693	FST And TST Preconfigured Module
76-0687	Social Interaction Preconfigured Module
76-0695	Smart V3.0 Basic Pack



DETAILS



Smart 3.0, the latest release of Panlab SMART video tracking system features the most flexible and easy-to-learn software for the automated evaluation of behavior in the widest range of pre-clinical and neuroscience applications.

SMART provides data relevant to problems in basic and clinical psychopharmacology. Applications include phenotype characterization (differences between strains, effect of a genetic modification, etc.) and studying the behavioral effects of pharmacologic substances.

Utilizing our advanced image analysis, SMART 3.0 allows the recording of activity, trajectories, events, social interactions, and global activity. SMART 3.0 provides users the versatility of a modular system with the capabilities of a broadband package.

SMART 3.0 was developed with the daily experimental process in mind with an easy-to-use interface and an highly flexible structure to fit well with most applications and budgets. Advanced features ensure reliable data and increased productivity, saving valuable time and resources.

SMART 3.0 emphasizes flexibility, productivity and simplicity - just add your desired settings, SMART 3.0 will do the rest. Simply SMART, simply powerful.

Provided data

- Summary tables directly exportable to Excel and providing calculation for each user-defined zones and/or time intervals
 - Wide variety of standard calculations related to tracking: time/distance/entries in zones, average speed, etc. Advanced calculations also available: alternation triplet, Whishaw's error, mean directionality, parallel index, turning tendency, rotations, rearings, etc.
 - Zone transition, global activity and events list reporting the time evolution of specific calculations and distribution of their occurrence
 - Track coordinates reports (X,Y,Z)
 - Group evolution graphs and Track image exportation
-

Elevated Plus Maze (Panlab)

The standard elevated plus-maze is commonly used to assess anxiety-like behavior in laboratory animals (rats/mice).

- Modular structure which allows storage in minimum space
- Wall/floors with different color included (black, grey and white) and non-reflecting material for optimizing video-tracking studies
- Removable walls for easy cleaning
- Odor-resistant material

Item No.	Description
76-1121	(LE840A) Elevated Plus Maze, Rat
76-1122	(LE842A) Elevated Plus Maze, Mouse



DETAILS



The standard elevated plus-maze is commonly used to assess anxiety-like behavior in laboratory animals (rats/mice). The maze is usually a cross shaped maze with two open arms and two closed arms, which is elevated above the floor.

This task exploits the conflict between the innate fear that rodents have of open areas versus their desire to explore novel environments. Security is provided by the closed arms whereas the open arms offer exploratory value. When anxious, the natural tendency of rodents is to prefer enclosed dark spaces to opened brightly lit spaces. In this context, anxiety-related behavior is measured by the degree to which the rodent avoids the unenclosed arms of the maze.

The elevated plus maze can be used with a video tracking system such as the .

Please contact us for any request of customized elevated plus maze configuration (color, size etc.)

WHAT IS NEW?

- The mazes are now provided with all accessories for black, white or grey floors/walls, all included in the same part number.
- The height of the walls of the standard configuration of the rat elevated plus maze has been lowered to 35 cm.

ActiTrack Software (Panlab)

Actitrack software controls the Panlab Infrared actimeter for the evaluation of activity and rearing.

- Control up to 32 frames
- Provides integrated data (spatial position, pattern of displacement, rearings)
- User-adjustable thresholds for classifying activity into fast, slow and resting movements
- Allows track re-analysis with an unlimited number of user-defined zones
- Enables re-playing experiment using different threshold for movement speed definition
- Can be installed in as many computers as may be required for track analyses

Item No.	Description
76-0003	(ACTITRACK V2.7) Software for Global activity, Tracking and Rearing (Up to 32 Frames), includes 1 RS232/USB converter
76-0443	Software module for GLP
76-0610	Upgrade from previous version to ACTITRACK V2.7



DETAILS



The ActiTrack software is activity counting and tracking software working with Panlab IR actimeters (up to 32 IR frames). It discriminates and analyses frequency and number of IR beam breaks to convert it in a track file that can be analysed later for generating reports. Thus ActiTrack provides much more integrated and precise data in terms of animal activity, position, displacements and rearings than those provided by the SeDaCom software.

The IR actimeter enclosure can be divided into zones of interest (up to 32) using the specific tools provided by Actitrack. Animal trajectories are acquired from real time beam breaks and stored enabling the user to analyze and re-analyse experiments with different zone configurations, associations (user-defined combination of zones) and parameters. Track can be replayed in real-time or by using an "accelerated" (user-defined speed) or "instantaneous" modes. The report cover either the full track or partial sections of time.

All data obtained by Actitrack is expressed in ASCII format and can be easily exported to a wide range of spreadsheets and statistics programs for further analysis. Actitrack can be installed in as many computers as required, and the user will be able to check data, generate reports, print out results and obtain charts for visual presentation.

Open Field Box (Panlab)

Standard boxes for the evaluation of animal's basal activity and its evolution, in response to novelty or anxiogenic environment, and in response to pharmacological treatment, lesion or genetic modification (open-field test).

- Optimised design for video-tracking purpose
- Material non-absorbent to the odours
- Easy to clean

Item No.	Description
76-0189	Square Open Field 90 x 90 x 40 cm (grey color). Other floor color available: white, black.
76-0190	Square Open Field 45 x 45 x 40 cm (grey color). Other floor color available: white, black.
76-0439	Square Open Field 90 x 90 x 40 cm + divider for 4 animals (grey color). Other floor color available: white, black.
76-0402	Square Open Field 45 x 45 x 40 cm + divider for 4 animals (grey color). Other floor color available: white, black.



DETAILS



Open-field experiments allow the evaluation of animal's basal activity and its evolution, in response to novelty or anxiogenic environment, and in response to pharmacological treatment, lesion or genetic modification.

Panlab proposes square open-fields available for rats and mice. The arena is made of durable material which has the advantage to be non-absorbent to the odours and easy to clean. The arena is surrounded by high walls and is available in different non reflective colours for video-tracking purposes. The system is entirely demountable for enabling storage in the minimum space. The floor can be divided into equal squares under request for the direct counting of animal activity. Possibility of providing round open-field. Ask for more information.

The open fields exists in different models:

- 76-0189: 90 x 90 cm open field currently used for anxiety test in rats
- 76-0439: 90 x 90 cm open field with divider for creating 4 arenas of 45 x 45 cm for global activity test in rats or anxiety test in mice
- 76-0190: 45 x 45 cm open field currently used for anxiety test in rats

- 76-0402: 45 x 45 cm open field with divider for creating 4 arenas of 22 x 22 cm for global activity test in mice

The Panlab open-field can be combined with the SMART video-tracking system for the automated evaluation of a wide variety of behaviors (activity, exploration, anxiety, etc...)

SPECIFICATIONS



Specifications	76-0189	76-0190	76-0439	76-0402
Dimensions, W x D x H in. (cm)	35.4 x 35.4 x 15.7 in. (90 x 90 x 40 cm)	17.7 x 17.7 x 15.7 in. (45 x 45 x 40 cm)	35.4 x 35.4 x 15.7 in. (90 x 90 x 40 cm)	17.7 x 17.7 x 15.7 in. (45 x 45 x 40 cm)

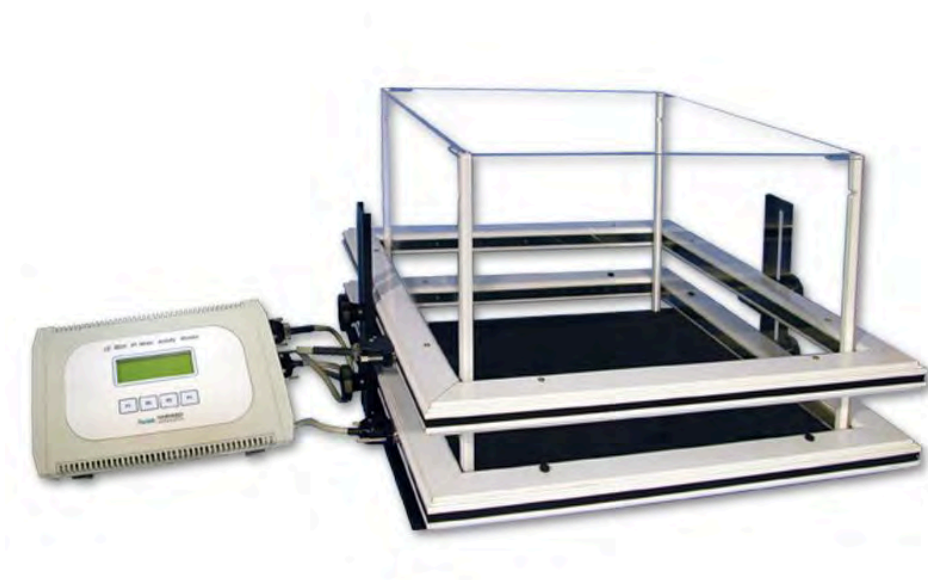
IR Actimeter (Panlab)

Compact Infrared (IR) Actimeter for the study of spontaneous locomotor activity, rearings and optionally hole-board test parameters for exploration in rodents.

- Minimum maintenance required
- Minimum lighting conditions required
- Interchangeable frames can be used without distinction for either REAR, ACT or POKING modes
- Works with both open-field and home cage mode
- Can be used with or without any computer (independent control units)

Item No.	Description
76-0127	(LE8815) IR Frame, 450 x 450 mm
76-0128	(LE8816) IR Frame, 250 x 250 mm
76-0131	(LE8817) Support for 45 x 45 Frame
76-0132	(LE8818) Support for 25 x 25 Frame
76-0134	(LE8825) Data Logger and PC Interface
76-0129	(LE8814) Transparent arena for 1 subject (4 walls for LE 8815), 440 x 440 mm (Open Field).
76-0130	(LE8813) Transparent arena for 1 subject (4 walls for LE 8816), 210 x 210 mm (Open Field)
76-0125	Transparent arena for 2 subjects (4 walls + divider for LE 8815), needs ActiTrack software.
76-0126	Transparent arena for 2 subjects (4 walls + divider for LE 8816), needs ActiTrack software.

Item No.	Description
76-0133	(LE8820) Hole Poke Base for 45 x 45 cm Frame
76-0406	SEDACOM Software V2.0
76-0003	(ACTITRACK V2.7) Software for Global activity, Tracking and Rearing (Up to 32 Frames), includes 1 RS232/USB converter



DETAILS



The Panlab Infrared (IR) Actimeter allows the study of spontaneous locomotor activity, rearings and optionally hole-board test parameters for exploration in rodents. A reliable system for easy and rapid drug screening and phenotype characterisation in both day and night lighting conditions.

The system is basically composed by a 2 dimensional (X and Y axes) square frame, a frame support and a control unit. Each frame counts with 16 x 16 infrared beams for optimal subject detection.

The system is completely modular: each frame may be used for evaluation of general activity (one or several animals), locomotor and stereotyped movements or rearings or exploration (nose-spoke detection in the hole-board option). The infrared photocell system can be set with up to 15 levels of sensitivity in order to adapt the frames to the typology of the animal (rats, mice). It can also be set to ignore the beams that are obstructed by objects (e.g. the walls/corners of the home cage).

The frames can be controlled by the independent control units LE8825 or directly through the optional SEDACOM computer software. The new SEDACOM 2.0 version provides an easy and convenient way to visualize and export the data on a computer for further analysis.

Optionally, the ActiTrack software option may be used to analyse animal trajectories (distance, speed, permanence time in selected zones) and then provide additional complementary data to those obtained using the control units.

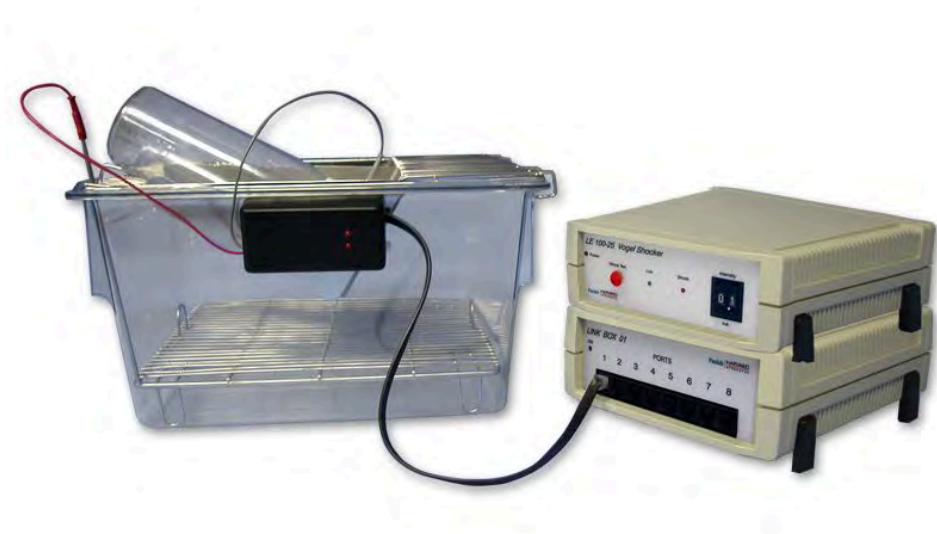
Vogel Test – Home cage (Panlab)

A complete homecage system for running Vogel test as a standard for fast screening the potential anxiolytic properties of drugs.

- Allows Vogel experiments directly into the animal's home cage
- Exclusive nipple system to exclude non-specific contacts
- Different cage available for rats and mice
- Up to 32 cages can be used with the setting associated with a computer
- Compatible with Laptop use

Item No.	Description
76-0316	Vogel Test set for Mouse (cage with nipple plus bottle and electric contacts for nozzle and grid). Also suitable for small Rats < 300 g.
76-0621	Vogel Test Set for Large Rats (cage with nipple plus bottle and electric contacts for nozzle and grid)
76-0334	Shock Generator with Scrambler Plus Lick Detector (1 per cage)
76-0002	(PACKWIN V2.0) Software Platform for behavior/operant boxes – Needs Experimental Modules
76-0594	(PACKWINVT) PACKWIN Vogel Test Experimental Module (Standard Asistants and Data Reports for Pre-test y Test Protocols).
76-0592	(PACKWINCS) Customized Experimental Module (Fully Customizable Protocol and Data Report Edition)

Item No.	Description
76-0319	Spare Part: Vogel Test Nipple Plus Bottle
76-0320	Spare Part: Electric Contacts for Nozzle and Grid



DETAILS



The Vogel test is a conflict test has become a standard for fast screening the potential anxiolytic properties of drugs. In this procedure, the drinking behavior is punished by mild electrical shocks leading to a significant reduction of water consumption in deprived animals. Drinking responses are then reestablished by drugs with anxiolytic properties.

The Panlab Vogel test consists of a standard home cage associated with a grid floor. An electronic unit associated with a special nipple ensures the detection and counting of the licks reflecting the animal drinking behavior. Using an exclusive nipple design, any casual and non-specific contacts of the animal with the nipple will not be considered as a drinking response.

A multi-cage configuration allows running simultaneously the Vogel test in up to 32 cages. Each home

cage is associated with one lick sensor/Shock generator (76-0334). Each 8 lick sensor/Shock generators are connected to a link box (76-0156) and up to 8 link boxes can be connected in daisy chain. The PackWin software is used for protocol edition, data acquisition and data analysis.

The interconnection among the last link box of the chain and the computer is carry out through a RS232/USB communication. The test can be run on a Laptop.

SPECIFICATIONS

Specifications	76-0334	76-0319	76-0320
Catalog Pages	G56	G56	G56
Internal Memory Capacity			
Model Number	LE10025	LE8624	LE8626
Related Software	PACKWIN	PACKWIN	PACKWIN
Shock Duration	0.1 to 10 seconds		
Shock Range	0.1 to 2 mA		

Four Plate Box – Aron Test (Panlab)

The Aron test or four plates test is an animal model of anxiety in which the exploration of the novel surroundings is suppressed by the delivery of a mild electric foot shock.

- An elegant and economical solution for screening anxiolytic drugs in mice
- Punishment based conflict test
- Shock with adjustable intensity

Item No.	Description
76-0006	(LE830) Aron Test Box
76-0159	(LE10026) Shock Generator with Scrambler



The Aron test or four plates test is an animal model of anxiety in which the exploration of the novel surroundings is suppressed by the delivery of a mild electric foot shock.

Basically, the apparatus consists of a cage floored by four identical rectangular metal plates (8–11 cm) separated from one another by a gap of 4 mm. The plates are connected to a shocker unit that can generate electric footshocks.

Following habituation period, the animal is subjected to an electric shock when crossing (transition) from one plate to another, i.e. two legs on one plate and two legs on another. The number of punished crossings is generally calculated for a period of 60 s. A substance with anxiolytic properties induces an increase in the number of punished passages.

Compact Black and White Test (Panlab)

Compact Black and White box for a quick evaluation of the animal anxious behavior.

- Compartments with independent and highly contrasted illumination
- Associated with weight transducer technology for optimal animal detection
- Easy to clean between two trials
- Easy connection to a PC through RS232 port

Item No.	Description
76-0007	(LE810) Black and White Box, Mouse
76-0009	(LE812) Black and White Box, Rat
76-0008	(LE816) Automated Black and White Box, Mouse (needs PPCWIN software)
76-0010	(LE818) Automated Black and White Box, Rat (needs PPCWIN software)
76-0011	(PPCWIN V2.0) Software for Control and Data Analysis (needed for Automated models)



DETAILS



The Panlab black and white (or dark light) box allows easy and quick evaluation of the animal anxious behavior and its modification by pharmacological agents by assessing the animal displacements in two compartments with different size, color and illumination.

The dark-light experimental box, constructed of Perspex, is composed of a small black compartments and a big white compartment separated by a connecting gate. Each compartment has its own removable Perspex floor of the same color of the respective walls and 90 X 90 mm sectors delimited by lines. The compartments are independently illuminated: the white one with a 100 W white bulb and the black one with a 40 W red bulb. Both bulbs are 370 mm from the floor of the box.

The dark-light box can be supplied with a weight transducer system for automated animal detection. In that case, the automated experimental chambers (up to 8) are associated to the PC-based control software PPCWIN for data storage and analysis.

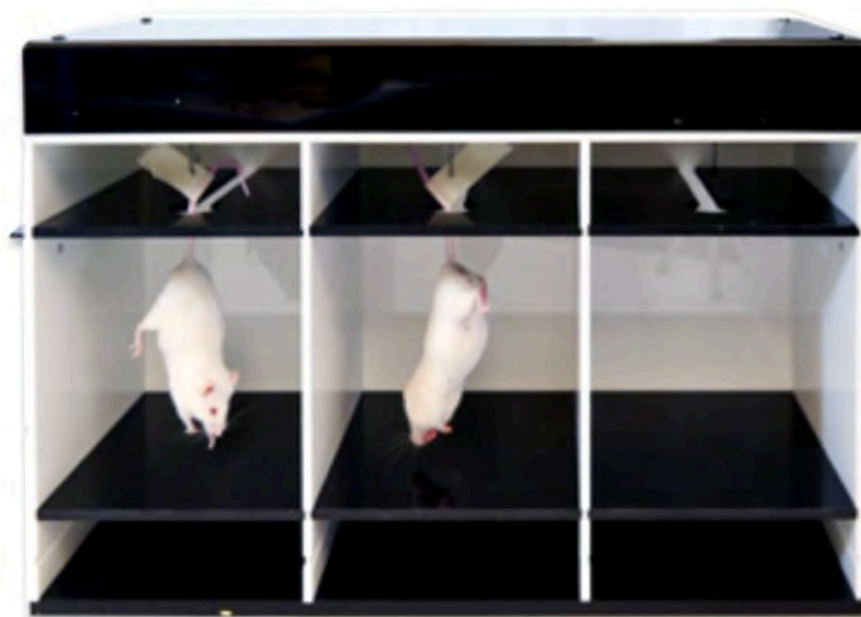
Even though it may represent a more complex experiment to set due to the strong lighting contrast existing between the compartments, some researchers also use the box with a video tracking system.

Automated Tail Suspension Test

The automatic tail-suspension test allows a fast and reliable screening of the psychotropic properties (anti-depressants, sedatives) of drugs.

- Fully automatic and operator-independent
- Includes 4 types of randomization processes of the animal list
- Measurement of up to 6 animals in the same run
- Full control of the calibration
- High predictability for antidepressant effects in humans
- Based on innate behaviours and despair models
- Widely used in literature and deeply validated in phenotyping and pharmacology
- Simple to set up and use
- Replay possible with other parameters
- Short-lasting experiment (usually 6 minutes)
- Optional video recording to adjust the activity threshold
- NEW Wireless Communication!

Item No.	Description
76-1227	Automated tail suspension test. 1 set of 3 cages for mice with software
76-1228	1 additional set of 3 cages
76-0782	Optional USB video camera with its optic and stand to record suspension and adjust threshold



DETAILS



The automatic tail-suspension test allows a fast and reliable screening of the psychotropic properties (anti-depressants, sedatives) of drugs.

- Fully automatic and operator-independent
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- Measurement of up to 6 animals in the same run
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- Based on innate behaviours and despair models
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- Simple to set up and use
- Replay possible with other parameters
- Short-lasting experiment (usually 6 minutes)

- Optional video recording to adjust the activity threshold
- NEW Wireless Communication!

Basically, the measuring principle is based on the energy developed by mice trying to escape from their suspension. During the test, the movements of the mice are analyzed in terms of force, energy and power developed over time.

The system includes the suspension cages (3 mice per cage) and a user-friendly software to run, record, analyze and replay the experiments. The results are either printed or stored in .txt or.xls files formats.

Citations

Alexandre C et al. (2006) Early Life Blockade of 5-Hydroxytryptamine 1A Receptors Normalizes Sleep and Depression-Like Behavior in Adult Knock-Out Mice Lacking the Serotonin Transporter. J. Neurosci. 26(20): 5554-5564. (mouse, France, Germany)

Cryan J et al. (2004) The tail suspension test as a model for assessing antidepressant activity: review of pharmacological and genetic studies in mice. Neurosci. Biobehav. Rev. 29(4-5):571-625. (mouse, Switzerland)

Mombereau C et al. (2004) Genetic and Pharmacological Evidence of a Role for GABAB Receptors in the Modulation of Anxiety- and Antidepressant-Like Behavior. Neuropsychopharmacol. 29:1050-1062 (mouse, Switzerland)

Strekalova T et al. (2004) Stress-Induced Anhedonia in Mice is Associated with Deficits in Forced Swimming and Exploration. Neuropsychopharmacol., 29(11):2007-17 (mouse, Germany).

SPECIFICATIONS

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Specifications

76-0780

Number of animals	1-3 mice if one set of cages is used, 1-6 mice if 2 sets of cages are used
Material Composition	Black and white PVC
Power	110-230 Volts- 9 volts DC
Dimensions	50 x 15 x 30 cm for a set of three cages
Acquisition sampling rate	200 Hz for the sensors, 15 images/second for the camera
PC Requirements	OS: Windows 7 / 8, 32 64 bits, CPU: Intel Core i3, 2.4GHz or equivalent, RAM: 3Go, USB: USB 2 / USB 3, Display resolution: 1152x768 pixels, 1 free USB port / cage set + 1 free USB port for the camera, Compatible with touch-screen tablet using W8

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