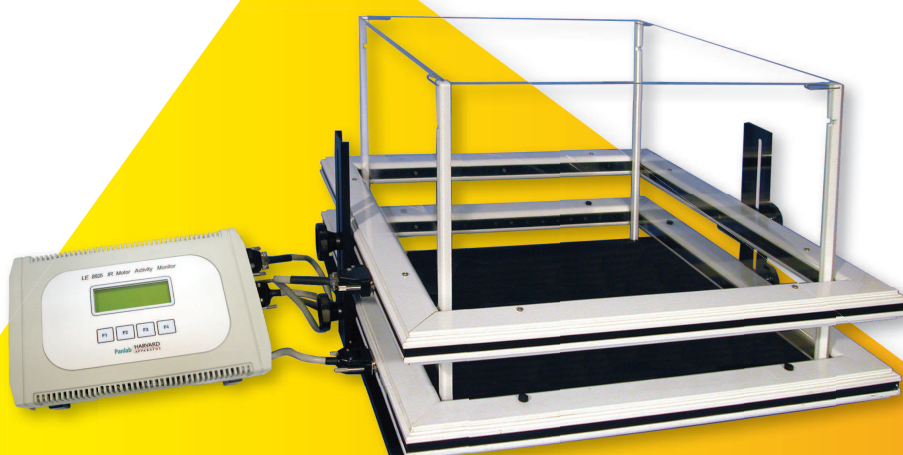


IR ACTIMETER

State-of-the-art system for exploring locomotor activity and exploration



PRODUCT OVERVIEW

The Panlab Infrared (IR) Actimeter allows the study of spontaneous locomotor activity, rearing 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 two-dimensional (X and Y axes) square frame, a frame support and a control unit. Each frame is composed of 16 x 16 infrared beams for optimal subject detection.

The frames can be controlled by independent control units or directly through the SEDACOM software, which allows easy exportation of the data to a computer.

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

Key Features

- *Modular system with unmatched flexibility - fit any needs!*
- *Two-dimensional (XY) IR frame for providing maximum resolution and accuracy.*
- *Optimized configuration for small mice with the smallest beams inter-space in the market (1.3 cm).*
- *Compact and convenient (no PCI needed, minimum cable and maintenance...).*
- *Can be used without any computer (independent control units with internal memory).*
- **New** *optional Data Transfer software SEDACOM 2.0 (RS232/USB communication).*
- *Tracking functions available through the ACTITRACK software.*

APPLICATIONS

Open-field test, Global Activity, Thygmataxis, Circadian locomotor activity, Exploration, Hole-board test, Anxiety test.

IR ACTIMETER

UNMATCHED FLEXIBILITY!

Modular structure

The Panlab Actimeter system is completely modular. Combine and adapt its basic components and accessory at your will depending of your experiment needs. It's easy!

- The IR Actimeter system is basically composed by 1 or 2 square IR frames (LE8815/LE8816), a frame support (LE8817/LE8818) and a control unit (LE8815).
- Each frame can be used without distinction for activity, rearing or nose-poking (hole-board test).
- Many combinations possible! For instance, two frames connected to the same LE8825 control unit can be used:
 - for 1 animal for locomotor activity and rearing,
 - for 2 animals in separated enclosure for locomotor activity only.
- Easy IR Frame height adjustment (from 3 to 20 cm) for adapting the system to any animals horizontal and vertical activity.
- Get results from 1 to n animals simultaneously!
 - 1 subject - 1 arena
 - 2 subjects - 2 arenas (using the arena divider)
 - n subjects - 1 arena (for global - not individual - activity)
- Use the system with animal homecage for long-lasting experiments (circadian cycle studies) or with our transparent arenas for puntual locomotor activity evaluation in response to drugs or for locomotor phenotyping.



FREQUENTLY ASKED CONFIGURATIONS



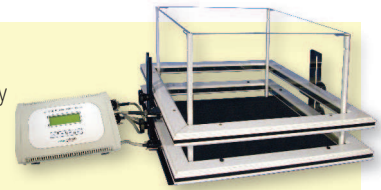
CONFIGURATIONS	IR FRAME	CONTROL UNIT	FRAME SUPPORT	ARENA	LE8820	SEDACOM	ACTITRACK
Single IR Frame for 1 Rat & Mouse (open-field)	1 x LE8815	1 x LE8825	1 x LE8817	1 x LE8814	NO	OPTION	OPTION
Single IT Frame for 1 small Mouse (open-field)	1 x LE8816	1 x LE8825	1 x LE8818	1 x LE8813	NO	OPTION	OPTION
Single IR Frame for 2 Rats & Mice (open-field)	2 x LE8815	1 x LE8825	2 x LE8817	2 x LE8814	NO	OPTION	OPTION
Single IT Frame for 2 small Mice (open-field)	2 x LE8816	1 x LE8825	2 x LE8818	2 x LE8813	NO	OPTION	OPTION
Double IR Frame for 1 Rat & Mouse (open-field)	2 x LE8815	1 x LE8825	1 x LE8817	1 x LE8814	NO	OPTION	OPTION
Double IR Frame for 1 small Mouse (open-field)	2 x LE8816	1 x LE8825	1 x LE8818	1 x LE8813	NO	OPTION	OPTION
n x Double IR Frame for Rat & Mice (open-field)	2n x LE8815	n x LE8825	n x LE8817	n x LE8814	NO	OPTION	OPTION
Double IR Frame for 1 Rat & Mouse (Circadian rhythm)	2 x LE8815	1 x LE8825	1 x LE8817	Home-cage	NO	OPTION (preferred)	OPTION
Holeboard test for Rat & Mice	1 x LE8815	1 x LE8825	1 x LE8817	NO	YES (1 x)	OPTION	OPTION
Double IR Frame for Tracking 1 Rat or 1 Mouse	2 x LE8815	1 x LE8825	1 x LE8817	1 x LE8814	NO	NO	NEEDED
Double IR Frame for Tracking 2 Rats or 2 Mice	2 x LE8815	1 x LE8825	1 x LE8817	1 x LE8821	NO	NO	NEEDED

WORKING WITHOUT COMPUTER

- The experiment settings are done directly in the LE8825 control unit: Infrared beams test, date & time settings, identification number, frame function, timing settings, storage configurations...
- Data are stored automatically in the LE8825 control unit (200h data storage)
- Data are displayed in real-time in the LE8825 display of and can be visualized afterwards directly from the control unit.

DATA

- Slow/fast locomotor activity (horizontal activity with displacement)
- Slow/fast stereotypies (horizontal activity without displacement)
- Slow/fast Rearing (vertical activity)
- Slow/fast Nose-poking (Holeboard test)



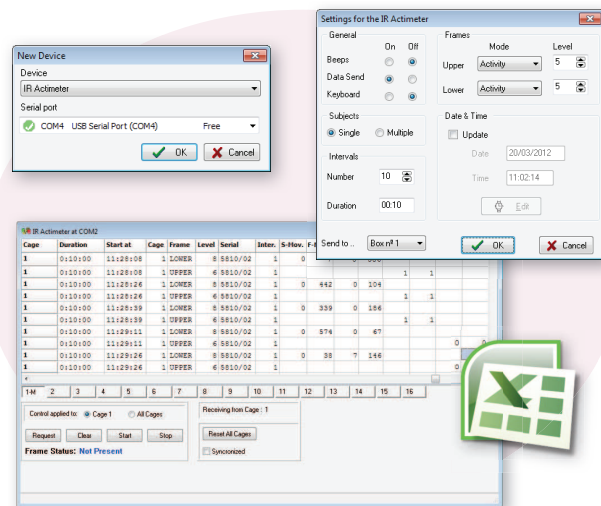
SEDACOM - DATA TRANSFER SOFTWARE



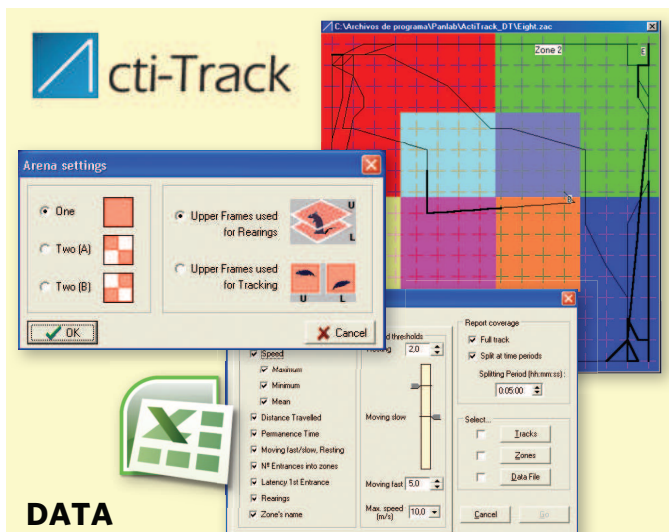
NEW SEDACOM version 2.0!

A very easy, convenient and cost-saving Data Transfer Software! The SeDaCom 2.0 version provides an ideal environment for visualizing the registered data on a computer and exporting them in a format that simplifies any further post-analysis processes.

- Save time in the post-analysis process with the new convenient tabular presentation of the data.
- Additional fields are provided for improving the traceability of the data (subjects, groups, specific information).
- Set the LE8825 control units as well as all the parameters of the experiment directly from the SEDACOM configuration panels.
- Control the START/STOP of the trials directly from the SEDACOM Runtime panels. Independent or synchronized START/STOP.
- Save the data file with RAW and SED extensions. The SED files can be opened afterwards for adding a new set of data.
- New direct exportation to Excel format (txt and html formats exportation also available).
- Bring your software and data everywhere with our new USB-flash key packaging.



ACTITRACK - TRACKING SOFTWARE



DATA

- Analysis of animal tracking: travelled distance, Max/Min/Mean speed, rearings number and mean duration, Time in zones, Entries in zones, CW and CCW rotations, thymotaxis, Time in Resting/Slow/Fast movements, etc.
- Rearing list (starting time, duration, starting zone)
- Global activity data (same as those provided with the LE8825 control unit and SEDACOM software)

ActiTrack provides more integrated and precise data in terms of animal activity, position, displacements and rearings than those provided by the SeDaCom software.

- ACTITRACK controls data coming from up to 32 IR frames. The software discriminates and analyses frequency and number of IR beam breaks and convert it into a track file that can be analysed afterwards for generating reports.
- The IR actimeter enclosure can be divided into zones of interest using the specific tools provided by Actitrack.
- Animal trajectories can be analysed and re-analysed with different zone configurations, associations and report settings.
- 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. Direct exportation to Excel format.
- 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.

IR ACTIMETER

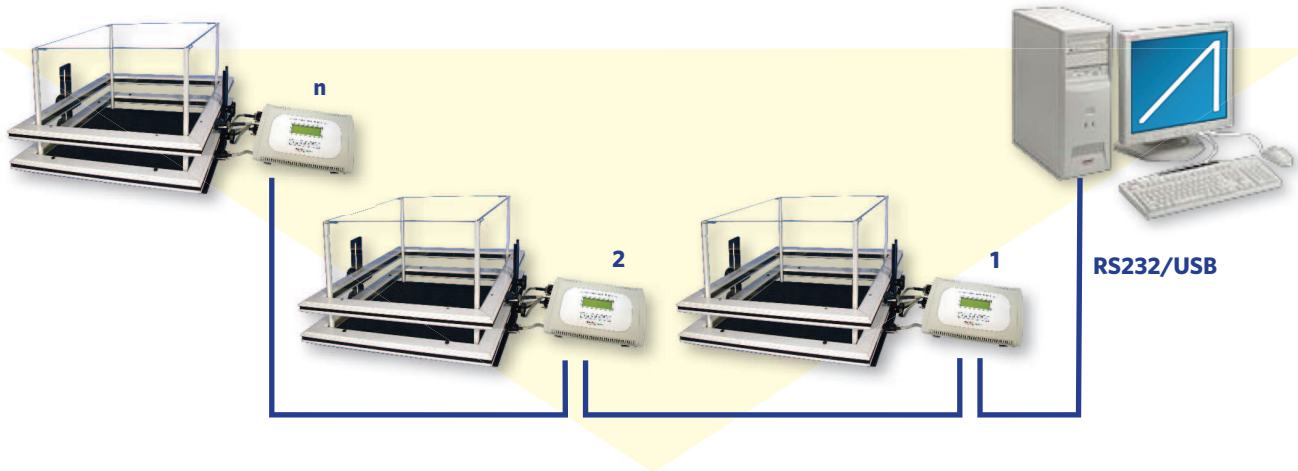


OPTIMIZED DESIGN

Compact and minimal maintenance!!!

This highly integrated system with less components and less cables between units makes it easier to clean and to maintain as well as easier to handle and relocate.

- No need of PCI card! Only one cable connects the platforms between them and the last one is linked to the PC or laptop using RS232/USB port.
- Easy to upgrade: expand you system easily for meeting your growing scientific demands:
 - up to 16 Double IR frame units (simultaneous evaluation of 16 animals for both horizontal locomotor activity and rearing) or,
 - up to 32 Single IR frame units (simultaneous evelation of 32 animals for locomotor activity only... or rearing ...or nose-poke...)



ORDERING INFORMATION

IR FRAMES and SUPPORTS

LE8815	76-0127	IR Frame for Rats and normal Mice, 45 x 45 cm, XY axis, 16 x 16 IR beams, 2.5 cm spaced beams.
LE8816	76-0128	IR Frame for small mice, 25 x 25 cm, XY axis, 16 x 16 IR beams, 1.3 cm spaced beams.
LE8817	76-0131	Support for LE 8815 frames.
LE8818	76-0132	Support for LE 8816 frames.

CONTROL UNIT (1 for each 2 IR frames)

LE8825	76-0134	Data Logger (up to 200 hours memory, RS232 comm.)
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ENCLOSURES

LE8814	76-0129	Transparent arena for 1 subject (4 walls for LE 8815), 440 x 440 mm (Open Field).
LE8813	76-0130	Transparent arena for 1 subject (4 walls for LE 8816), 210 x 210 mm (Open Field).
LE8821	76-0125	Transparent arena for 2 subjects (4 walls + divider for LE 8815), needs ActiTrack software.
LE8823	76-0126	Transparent arena for 2 subjects (4 walls + divider for LE 8816), needs ActiTrack software.

HOLE-BOARD ACCESSORY

LE8820	76-0133	Nose-Poke Base for LE 8815 Frame (18 holes, 2.4 diam., 1 cm depth)
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SEDACOM OPTION FOR DEVICE CONTROL & DATA TRANSFER

SEDACOM V2.0	76-0406	SeDaCom V2.0 software for data transfer to a computer.
CONRS232USB	76-0608	SeDaCom accessory - RS232/USB adapter.

ACTITRACK OPTION FOR TRACKING

ACTITRACK V2.7	76-0003	ACTITRACK Tracking Software for up to 32 frames
ACTITRACKUPG V2.7	76-0610	Upgrade from previous version to ACTITRACK V2.7