

Multiple Activity Cage

*Horizontal and Vertical Activity
in Rats and Mice*



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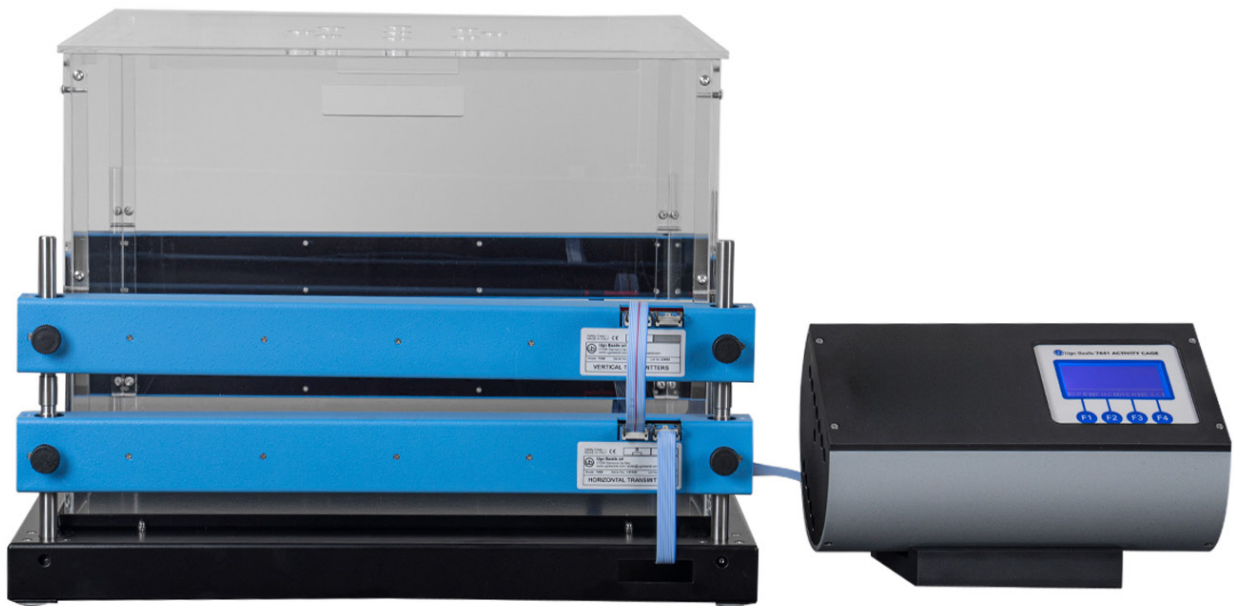


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Multiple Activity Cage

Measures horizontal and vertical activity in rats and mice.

Easily integrated with video-tracking system to measure rearing XY position.



Enables recording of spontaneous locomotor activity in rats and mice (individual or groups) using infrared (I.R.) beams. General activity can be an indicator of drug action, toxic substances, neurological damage, or daily rhythms in activity.

Tracks horizontal and vertical activity (rearing) in a Perspex box or in home cage. Easily integrated with video-tracking system to measure XY position. Easy touch-buttons, graphic display. High throughput with up to 6 cages monitored by the same electronic unit.

Horizontal and vertical movements, complete set up

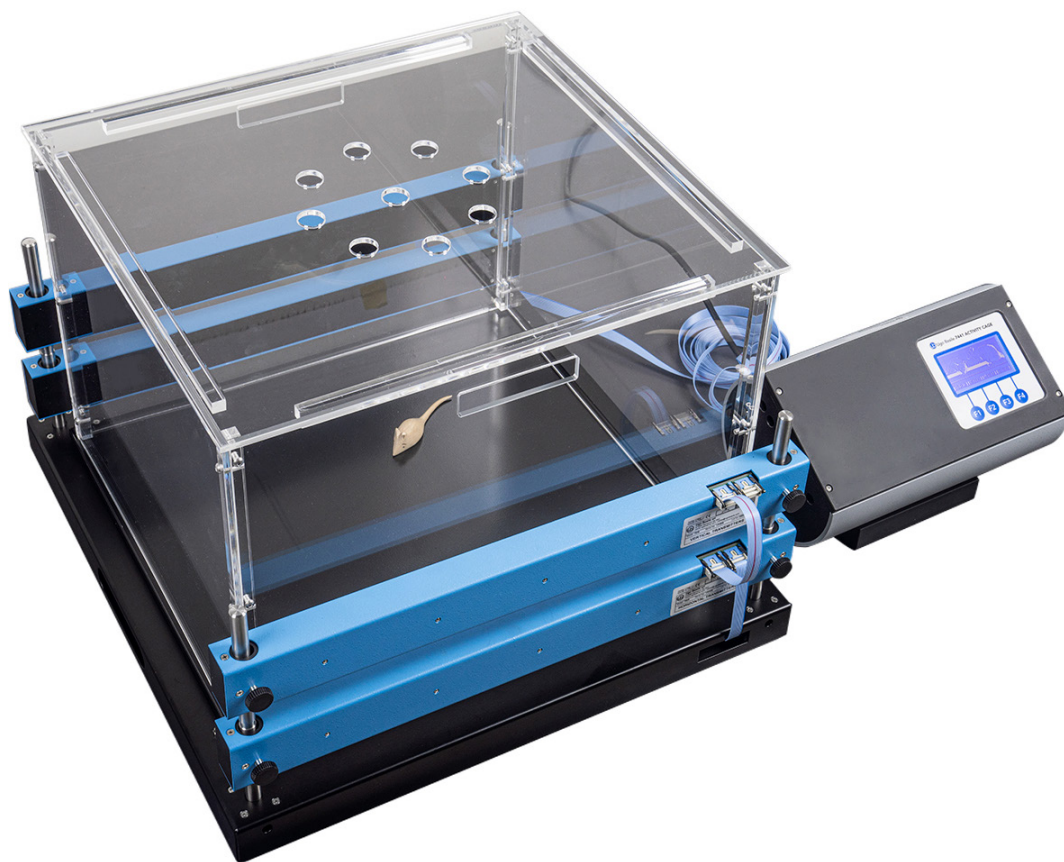
- Movement is tracked by beam breaks as the animal crosses one or more I.R. beam/s in the cage.
- Horizontal and vertical movements are recorded unobtrusively and saved to the electronic unit (stand-alone controller).
- Easily integrated with video tracking system to measure rearing XY position.
- The I.R. beams are arranged in an array of emitters on one side of the cage, detectors on another. The upper IR array that monitors vertical or rearing activity is height-adjustable.
- The activity data are displayed at pre-set time intervals and routed to the computer according to the selected configuration. The data can be customized by adding animal and experiment numbers, gender, etc.
- The experiment is configured using touch buttons and graphic display.
- Customize experiment data by adding animal & experiment numbers, gender, etc.

Typical device applications

Activity Cages are useful to record activity in rats and mice (individual or groups) and variations of this activity over time, e.g., in the following types of investigations:

- General toxicology, in ascertaining the action of a drug on the animal's activity, especially if it is subjected to chronic treatment.
- Psychopharmacology, in screening drugs which are potentially active on the central nervous system.
- Behavioral Sciences, in evaluating the variations of spontaneous activity after changes in environmental conditions.

Product Description



The Activity Cage includes:

- Electronic unit with graphic display
- An animal cage of clear Perspex, 40x40cm
- Two sets of emitter/sensor arrays for horizontal and vertical activity
- Serial port, plus serial to USB adaptor, for PC connection
- Software
- Add up to 5 extra cages for high throughput. The electronic unit processes data up to 6 cages.

Easily integrated to Video-tracking

- The Any-maze videotracking software already includes drivers for the Ugo Basile Activity Cage so that the XY position of the animal and all derived measures can be coupled to the rearing measure obtained by the IR beams.

Features	Benefits
IR photocells arrays of adjustable height	Same instrument for rats and mice
2 pairs of IR photocells arrays	Measure locomotion and rearing
Embedded memory and software	GLP compliant, stand-alone or PC-connected
Direct connection to videotracking	Get access to all video-tracking measures plus rearing

Main references

- I. Filipciuc, 2024, [JWH-182: a safe and effective synthetic cannabinoid for chemotherapy-induced neuropathic pain in preclinical models](#), Scientific reports
- E. Khafagy et al., 2023, [Brain Targeting by Intranasal Drug Delivery: Effect of Different Formulations of the Biflavone "Cupressuflavone" from Juniperus sabina L. on the Motor Activity of Rats](#), Molecules
- V. Kokova et al., 2023, [Effect of Etifoxine on Locomotor Activity and Passive Learning in Rats with Diazepam-Induced Cognitive Deficit](#), Scientia Pharmaceutical
- H.N. Althurwi et al., 2022, [Protective Effect of Beta-Carotene against Myeloperoxidase-Mediated Oxidative Stress and Inflammation in Rat Ischemic Brain Injury](#), Antioxidants
- N. Bekyas et al., 2020, [The anxiolytic effect of perampanel and possible mechanisms mediating its anxiolytic effect in mice](#), Life Science

Specifications - General

Commands	Via "soft keys"
Starting	Via command keyboard on the electronic unit
Read-out	PC, Display
Power Requirement	115 or 230 VAC, 50/60 Hz, 25W max.
Sound Level	< 60 dB (A)
Operating Temperature	18° to 40° C
Connection to PC	Through DELTA 9-pin connector, USB

Physical

Electronic Unit Dimensions	27(w)x16(d)x19(h)cm
Animal Cage Dimensions	54(w)x50(d)x37(h)cm
Shipping Dimensions	80(w)x60(d)x44(h)cm
Electronic Unit Weight	2.7Kg
Animal Cage with sensors	11.8Kg
Shipping Weight	26Kg

Ordering informations

	Multiple Activity Cage, including:
47420	1 Microprocessor controlled Electronic Unit, for single cage operation 1 Animal Cage, including transparent cage, lid, base with supporting rods, catch pan and connection cable 1 Set of Horizontal Sensors (emitter/receiver), complete with connection cable 1 Set of Vertical Sensors, (emitter/receiver), complete with connection cable

	Multiple Activity Cage No Cage, including
47420-NC	1 Microprocessor controlled Electronic Unit, for single cage operation 1 Set of Horizontal Sensors (emitter/receiver), complete with connection cable 1 Set of Vertical Sensors, (emitter/receiver), complete with connection cable

Optional items

7433	1 Animal Cage, including transparent cage, lid, base with supporting rods, catch pan and connection cable
7435	1 Set of Horizontal Sensors (emitter/receiver), complete with connection cable
7436	1 Set of Vertical Sensors, (emitter/receiver), complete with connection cable

Extra warranty (standard 12 months + 12 months with product registration) available

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