

Hardware User's Manual

Elevated plus-maze



References:

LE840 (76-0074), LE842 (76-0075)

Version:

V24/10/2014

Limitation of Liability




PANLAB does not accept responsibility, under any circumstances, for any harm or damage caused directly or indirectly by the incorrect interpretation of what is expressed in the pages of this manual.

Some symbols may have more than one interpretation by professionals unaccustomed to their usage.

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1. SYMBOLS TABLE

Recognising the symbols used in the manual will help to understand their meaning:

DESCRIPTION	SYMBOL
Warning about operations that must not be done because they can damage the equipment	
Warning about operations that must be done, otherwise the user can be exposed to a hazard.	
Decontamination of equipment prior to disposal at the end of their operative life	

2. GOOD LABORATORY PRACTICE

Check all units periodically and after periods of storage to ensure they are still fit for purpose. Investigate all failures which may indicate a need for service or repair.

Good laboratory practice recommends that the unit be periodically serviced to ensure the unit is suitable for purpose. You must follow preventive maintenance instructions. In case equipment has to be serviced you can arrange this through your distributor. Prior to Inspection, Servicing, Repair or Return of Laboratory Equipment the unit must be cleaned and decontaminated.



Decontamination prior to equipment disposal

In use this product may have been in contact with bio hazardous materials and might therefore carry infectious material. Before disposal the unit and accessories should all be thoroughly decontaminated according to your local environmental safety laws.

3. UNPACKING AND EQUIPMENT INSTALATION



WARNING: Failure to follow the instructions in this section may cause equipment faults or injury to the user.

- A. No special equipment is required for lifting but you should consult your local regulations for safe handling and lifting of the equipment.
- B. Inspect the instrument for any signs of damage caused during transit. If any damage is discovered, do not use the instrument and report the problem to your supplier.
- C. Ensure all transport locks are removed before use. The original packing has been especially designed to protect the instrument during transportation. It is therefore recommended to keep the original carton with its foam parts and accessories box for re-use in case of future shipments. Warranty claims are void if improper packing results in damage during transport.
- D. Place the equipment on a flat surface and leave at least 10 cm of free space between the rear panel of the device and the wall. Never place the equipment in zones with vibration or direct sunlight.

The manufacturer accepts no responsibility for improper use of the equipment or the consequences of use other than that for which it has been designed.

PC Control

Some of these instruments are designed to be controlled from a PC. To preserve the integrity of the equipment it is essential that the attached PC itself conforms to basic safety and EMC standards and is set up in accordance with the manufacturers' instructions. If in doubt consult the information that came with your PC. In common with all computer operation the following safety precautions are advised.



- WARNING**
- To reduce the chance of eye strain, set up the PC display with the correct viewing position, free from glare and with appropriate brightness and contrast settings
 - To reduce the chance of physical strain, set up the PC display, keyboard and mouse with correct ergonomic positioning, according to your local safety guidelines.

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5. INTRODUCTION

Panlab has developed two elevated plus mazes, one Standard for rats LE840 and another for mice LE842.



Figure 1. Mouse elevated plus maze



Figure 2. Rat elevated plus maze

The mazes are mounted on supports which give them a certain height from the floor. They form a cross of two arms of equal surface area, but with the difference that one of them is delimited by lateral walls and the other one not.

Both models are made in black Plexiglas. The mazes are supplied with three types of walls.

- Grey, for standard experiments.
- Black, for standard experiments.
- Transparent¹, for specific experiments aimed to complement the standard analysis of animal position with an “ethopharmacological” analysis of animal behaviour². These walls are lower than the standard ones.

Grey floors are also provided as to facilitate video tracking when the animals are black.

¹ These walls are optional and are not supplied by default.

² For details see Anseloni and Branfdao, 1997, Ethopharmacological analysis of behaviour of rats using variations of the elevated plus maze. Behav Pharmacol, 8:533-40.

6. EQUIPMENT DESCRIPTION

In both models, rat and mouse, the mazes are mounted on supports which give them a certain height from the floor. The support consists of two black Plexiglas parts assembled. In top of that, two arms are mounted of equal surface area but with the difference that one of the arms is delimited by lateral walls and the other one not as shown in Figure 3.

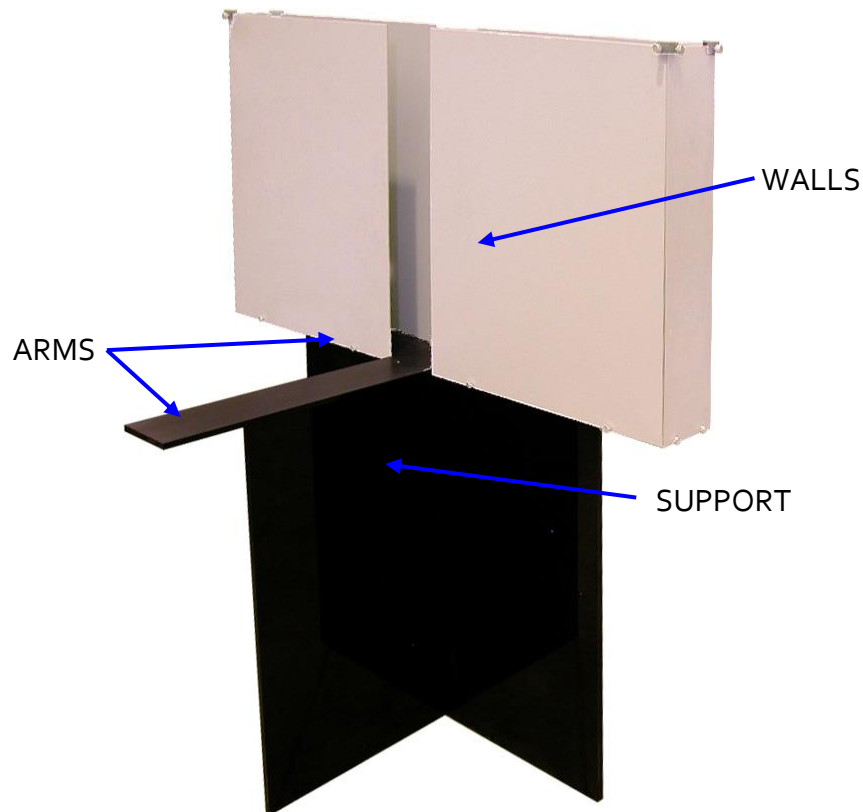


Figure 3. Rat elevated plus maze

7. ASSEMBLING THE ELEVATED PLUS MAZE

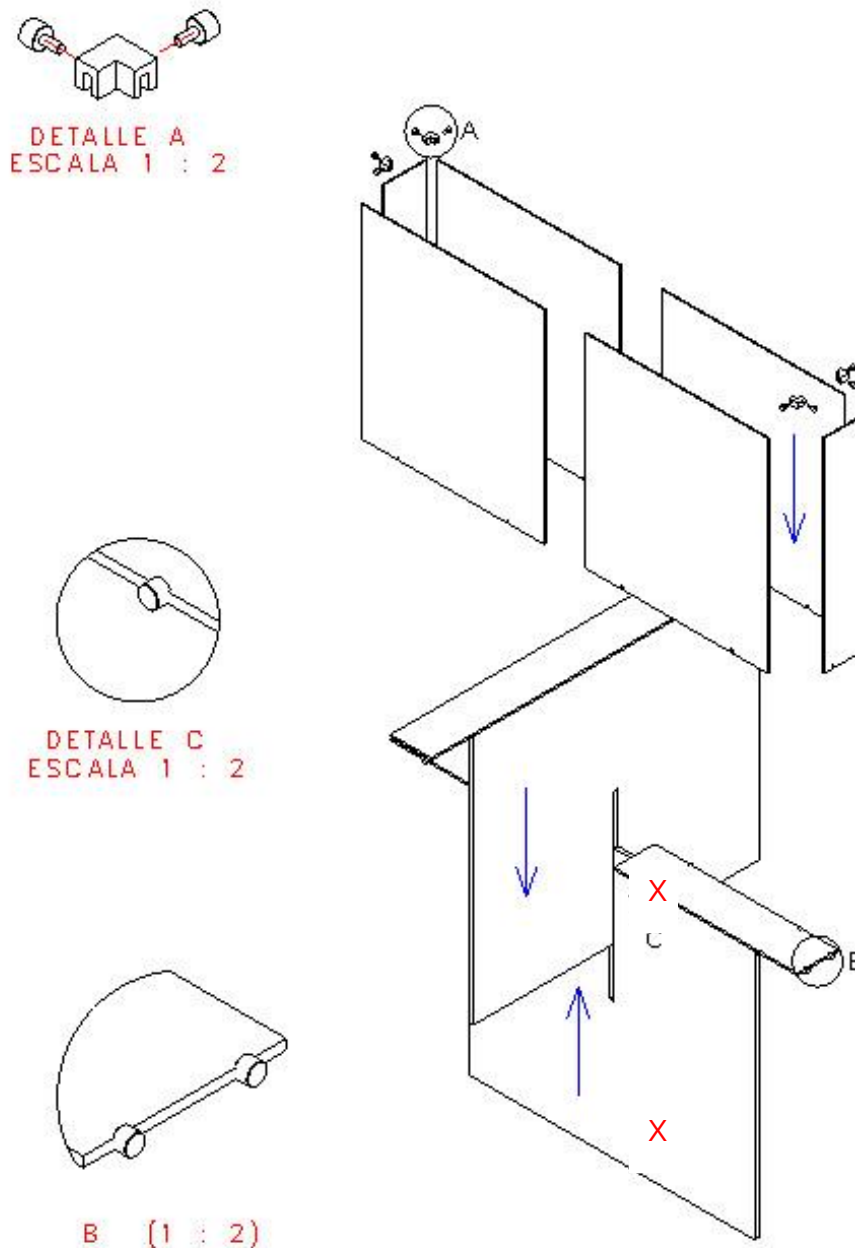


Figure 4. Assembling the elevated plus maze

To assembly the Plus maze proceed as follows:

1. Assembly the maze support by sliding the two parts one inside the other by the central guides **X** (see Figure 4. Assembling the elevated plus maze)
2. Assembly the Grey walls joining the 3 pieces with the nuts **A** (see Figure 4. Assembling the elevated plus maze)
3. Fix the Grey walls to the plus maze with screws **B** and **C** (see Figure 4. Assembling the elevated plus maze)

8. WORKING WITH THE EQUIPMENT

8.1. CONDUCTING AN EXPERIMENT

Read carefully the instructions given of the **Smart** program for conducting an experiment. Once the experiment has ended you should clean the maze so that is in good condition for the next experiment.

8.2. CLEANING PERSPEX

To clean the Perspex (Plexiglas) pieces you can use a slightly wet cloth and then dry them with a dry cloth. If they're too dirty you can wet the cloth with a soapy solution to clean them, then remove foam with a wet cloth and finally dry them with a dry cloth.



WARNING: To clean Perspex (Plexiglas) parts never use alcohol or alcohol derived products, otherwise stripes will appear in the material.

9. PREVENTIVE MAINTENANCE

	EXPERIMENT
CLEANING THE PERSPEX PARTS	<input checked="" type="checkbox"/>

10. SPECIFICATIONS

Model	Description	Arm length	Height Walls	Height From floor
LE 840	Standard Rats	100 cm x 10 cm	3 cm Transparent	65 cm
			50 cm Grey	
			50 cm Black	
LE 842	Standard Mice	65 cm x 6 cm	1.8 cm Transparent	40 cm
			15 cm Grey	
			15 cm Black	

**DECLARACIÓN DE CONFORMIDAD
DECLARATION OF CONFORMITY
DECLARATION DE CONFORMITÉ**

Nombre del fabricante: **Panlab s.l.u.**
 Manufacturer's name: www.panlab.com
 Nom du fabricant: info@panlab.com

Dirección del fabricante: **Energía, 112**
 Manufacturer's address: **08940 Cornellà de Llobregat**
 Adresse du fabricant: **Barcelona SPAIN**

Declaro bajo su responsabilidad que el producto: **ELEVATED PLUS MAZE**
 Declares under his responsibility that the product:
 Déclare sous sa responsabilité que le produit:

Marca / Brand / Marque: **PANLAB**

Modelo / Model / Modèle: **LE 840 – LE 842**

Cumple los requisitos esenciales establecidos por la Unión Europea en las directivas siguientes:
 Fulfils the essential requirements established by The European Union in the following directives:
 Remplit les exigences essentielles établies pour l'Union Européenne selon les directives suivantes:

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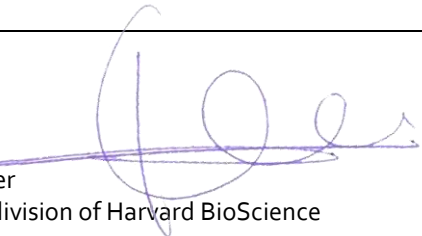
Analisis de riesgos / Risk assessment / Analyse des risques

Para su evaluación se han aplicado las normas armonizadas siguientes:
 For its evaluation, the following harmonized standards were applied:
 Pour son évaluation, nous avons appliqué les normes harmonisées suivantes:

En consecuencia, este producto puede incorporar el marcado CE:
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 En conséquence, ce produit peut incorporer le marquage CE:



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 26/06/2014