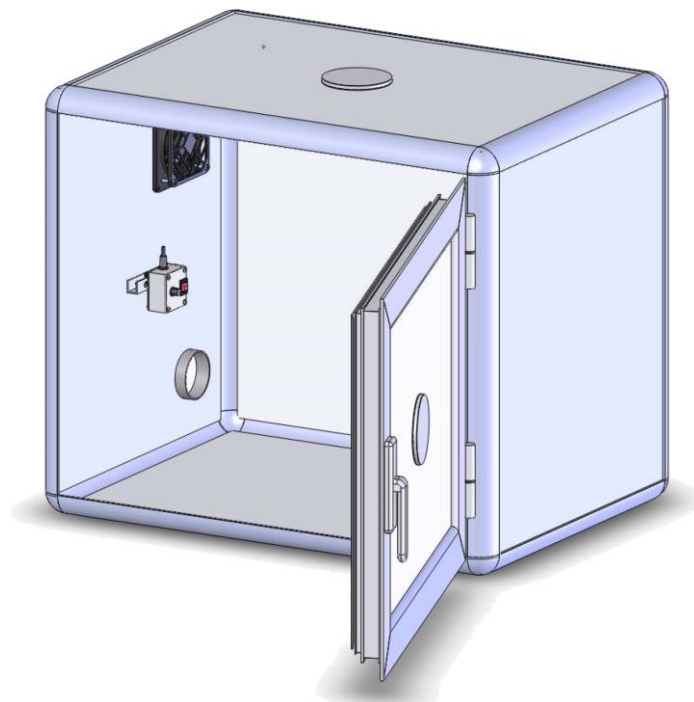


# Hardware User's Manual

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## Isolation box

Behavioral chambers



### References:

LE26 (76-0157)

### Publication:

PB-MF-MAN-005-REV1.0

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#### 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.

PANLAB reserves the right to modify, in part or in total, the contents of this document without notice.

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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.	
Protection terminal ground connection.	
Warning about a hot surface which temperature may exceed 65°C	
Warning about a metal surface that can supply electrical shock when it's touched.	
Decontamination of equipments prior to disposal at the end of their operative life	
Waste Electrical and Electronic Equipment Directive (WEEE)	

## 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 INSTALLATION

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


- A. For handling the sound proof box as it is heavy enough and the weight is not concentrated two persons are needed. Not following this advice can cause backache.
- 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.
- E. Once the equipment is installed in the final place, the main power switch must be easily accessible.
- F. Only use power cords that have been supplied with the equipment. In case that you have to replace them, the spare ones must have the same specs that the original ones.



- G. Make sure that the AC voltage in the electrical network is the same as the voltage selected in the equipment. **Never connect the equipment to a power outlet with voltage outside these limits.**



**WARNING**

**For electrical safety reasons you only can connect equipment to power outlets provided with earth connections** .

This equipment can be used in installations with category II over-voltage according to the General Safety Rules.

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.

## 4. MAINTENANCE

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**WARNING:** Failure to follow the instructions in this section may cause equipment fault.

- **PRESS KEYS SOFTLY** – Lightly pressing the keys is sufficient to activate them.
- Equipments do not require being disinfected, but cleaned for removing urine, faeces and odour. To do so, we recommend using a wet cloth or paper with soap (which has no strong odour). **NEVER USE ABRASIVE PRODUCTS OR DISSOLVENTS.**
- **NEVER** pour water or liquids on the equipment.
- Once you have finished using the equipment turn it off with the main switch. Clean and check the equipment so that it is in optimal condition for its next use.

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## 6. INTRODUCTION

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The LE 26 Soundproof cage is designed to contain any of several of Panlab's experimentation cages, such as the skinner cage, passive avoidance cage, shuttle box or startle and reflex cage. Depending on the needs of the experiment, it can feature additional sound insulation with an internal foam coating.

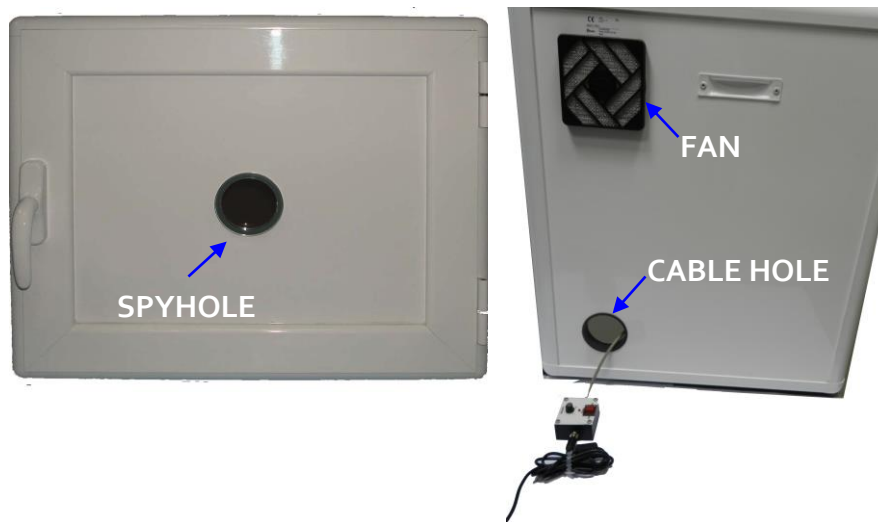


Figure 1. Front and lateral views of the sound proof cage

The cage is provided with a spyhole to observe the evolution of the experiment.

## 7. SYSTEM DESCRIPTION

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There is a fan on the left wall to provide ventilation. There is a LED lamp on the upper part of the rear inner wall with adjustable intensity through the control box.

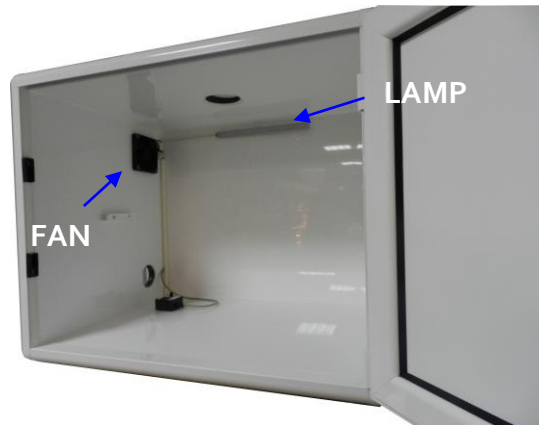


Figure 2. Inner view of the sound proof cage

There is a small box with a power switch, a power LED, an intensity regulator and a connector.

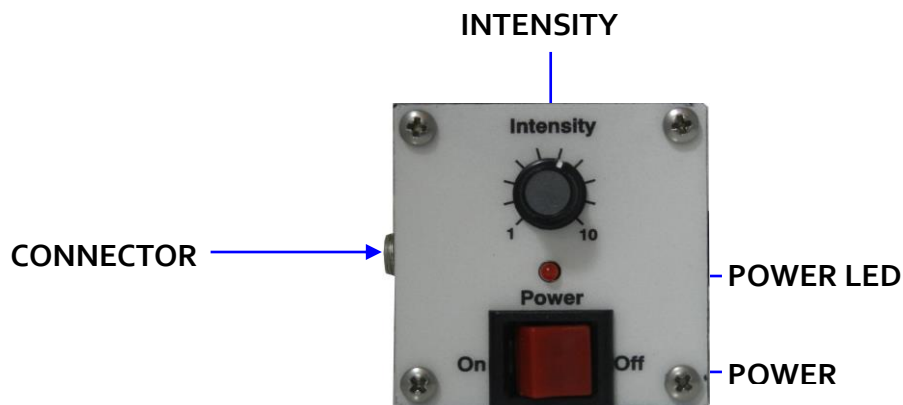


Figure 3. Control box

- **POWER:** main switch that turns on fan and light.
- **POWER LED:** 3mm red led that comes on when power switch is on.
- **INTENSITY:** knob used to regulate led light intensity.
- **CONNECTOR:** this male jack on the panel is used to connect the external power supply. The power supply output must give 12V DC 1A.



## 8. SYSTEM CONNECTION

The equipment has a control box that is connected to the external AC/DC adapter and from there to the power cord.

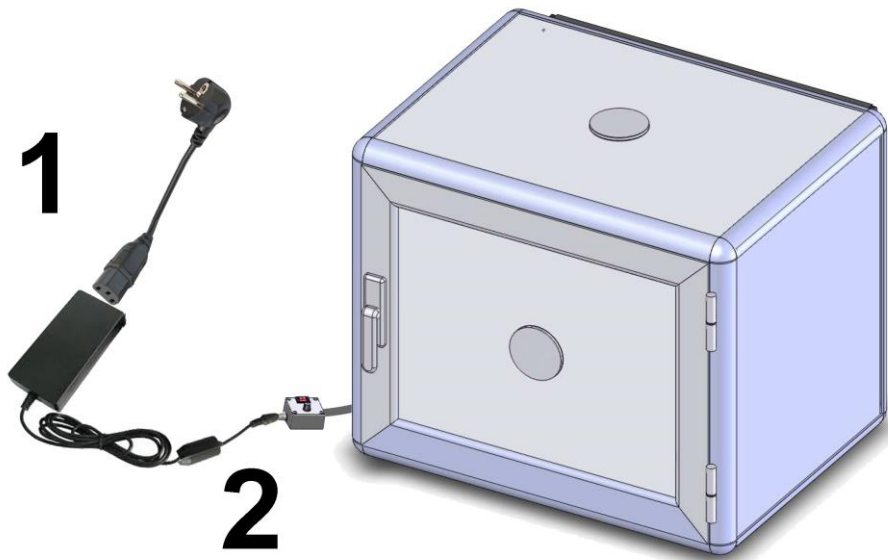


Figure 4. Equipment connections

	FROM	TO	CABLE
1	AC Mains	External AC/DC adapter	Power cord
2	External AC/DC adapter	Control box	Female Jack

## 9. WORKING WITH THE EQUIPMENT

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### 9.1. CONDUCTING AN EXPERIMENT

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1. Connect the AC/DC adapter to mains.
2. Connect the AC/DC adapter to the control box.
3. Turn the switch on.
4. Observe then that the power LED is on.
5. A spyhole is provided to observe the evolution of the experiment
6. Set the intensity regulator to the desired position.
7. Once the experiment has ended you should clean the sound proof box.

### 9.2. CLEANING THE SOUND PROOF BOX

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To clean the walls you can use a lightly 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.

## 10. TROUBLESHOOTING

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This table features instructions to solve the most frequent problems.

PROBLEM	SOLUTION
The equipment does not start up.	<ul style="list-style-type: none"> <li>• Ensure that the power cord connection to the external adapter and the connection between the external adapter and the control unit are correct.</li> </ul>
The fan does not work.	<ul style="list-style-type: none"> <li>• Check that the power switch is in the ON position and that the power LED is on.</li> <li>• Check the connection between the external adapter and the control unit.</li> </ul>
The lamp does not work.	<ul style="list-style-type: none"> <li>• Check that the power switch is in the ON position and that the power LED is on.</li> <li>• Check the connection between the external adapter and the control unit.</li> <li>• Check that the luminosity selector is not at the minimum level.</li> </ul>

11. PREVENTIVE MAINTENANCE

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	EXPERIMENT
BOX CLEANING	<input checked="" type="checkbox"/>

## 12. SPECIFICATIONS

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<b>POWER SUPPLY</b> Input voltage: Frequency: Maximum power: Conducted noise:	Universal 100-240 VAC <sup>1</sup> 50 /60 Hz 2 W EN55022 /CISPR22/CISPR16 class B
<b>ENVIRONMENTAL CONDITIONS</b> Operating temperature: Operating relative humidity: Storage temperature:	10°C to +40°C 0% to 85% RH, non-condensing 0°C to +50°C, non-condensing
<b>FAN</b> Model: Width x Height x Depth: Power: Power supply: Maximum current:	3412 NGLE 92 mm x 92 mm x 25 mm 1,1 W 12 V DC 90 mA
<b>LAMP</b> Technology: Quantity: Power supply: Power: Luminosity regulation:	White LED 14 LEDs 12V DC 1,12 W Yes
<b>DIMENSIONS</b> Width x Height x Depth:	660 mm x 550 mm x 500 mm

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<sup>1</sup> An external adapter from 100-240 V AC to 12 V DC is used

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

Nombre del fabricante: **Panlab s.l.u.**  
 Manufacturer's name: [www.panlab.com](http://www.panlab.com)  
 Nom du fabricant: [info@panlab.com](mailto:info@panlab.com)

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

Declara bajo su responsabilidad que el producto: **SOUND PROOF CAGE**  
 Declares under his responsibility that the product:  
 Déclare sous sa responsabilité que le produit:

Marca / Brand / Marque: **PANLAB**

Modelo / Model / Modèle: **LE 26**

Cumple los requisitos esenciales establecidos por la Unión Europea en las directivas siguientes:  
 Fulfills 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:

<b>2006/95/EC</b>	Directiva de baja tensión / Low Voltage / Basse tension
<b>2004/108/EC</b>	Directiva EMC / EMC Directive / Directive CEM
<b>2012/19/EU</b>	La Directiva de Residuos de Aparatos Eléctricos y Electrónicos (WEEE) / The Waste Electrical and Electronic Equipment Directive (WEEE) / Les déchets d'équipements électriques et électroniques (WEEE)
<b>2011/65/EU</b>	Restricción de ciertas Sustancias Peligrosas en aparatos eléctricos y electrónicos (ROHS) / Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (ROHS) / Restriction de l'utilisation de certaines substances dangereuses dans les équipements électriques et électroniques (ROHS)
<b>2006/42/EC</b>	Directiva mecánica / Machinery directive / Directive mécanique

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:

Seguridad / Safety / Sécurité:	<b>EN61010-1:2011</b>
EMC:	<b>EN61326-1:2012 Class B</b>
FCC:	<b>FCC47CFR 15B Class B</b>
Safety of machinery:	<b>EN ISO 12100:2010</b>

En consecuencia, este producto puede incorporar el marcado CE y FCC:  
 Consequently, this product can incorporate the CE marking and FCC:  
 En conséquence, ce produit peut incorporer le marquage CE et FCC:



En representación del fabricante:  
 Manufacturer's representative:  
 En représentation du fabricant:

**Carme Canalís**  
**General Manager**  
**Panlab s.l.u., a division of Harvard BioScience**

**Cornellà de Llobregat, Spain**  
**25/06/2014**

**(GB) Note on environmental protection:**



After the implementation of the European Directive 2002/96/EU in the national legal system, the following applies:

Electrical and electronic devices may not be disposed of with domestic waste. Consumers are obliged by law to return electrical and electronic devices at the end of their service lives to the public collecting points set up for this purpose or point of sale. Details to this are defined by the national law of the respective country. This symbol on the product, the instruction manual or the package indicates that a product is subject to these regulations. By recycling, reusing the materials or other forms of utilising old devices, you are making an important contribution to protecting our environment.

**(E) Nota sobre la protección medioambiental:**



Después de la puesta en marcha de la directiva Europea 2002/96/EU en el sistema legislativo nacional, Se aplicara lo siguiente:

Los aparatos eléctricos y electrónicos, así como pilas y baterías, no se deben tirar a la basura doméstica. El usuario está legalmente obligado a llevar los aparatos eléctricos y electrónicos, así como pilas y baterías, al final de su vida útil a los puntos de recogida municipales o devolverlos al lugar donde los adquirió. Los detalles quedaran definidos por la ley de cada país. El símbolo en el producto, en las instrucciones de uso o en el embalaje hace referencia a ello. Gracias al reciclaje, a la reutilización de materiales i a otras formas de reciclaje de aparatos usados, usted contribuirá de forma importante a la protección de nuestro medio ambiente.

**(F) Remarques concernant la protection de l'environnement :**



Conformément à la directive européenne 2002/96/CE, et afin d'atteindre un certain nombre d'objectifs en matière de protection de l'environnement, les règles suivantes doivent être appliquées.

Elles concernent les déchets d'équipement électriques et électroniques. Le pictogramme "picto" présent sur le produit, son manuel d'utilisation ou son emballage indique que le produit est soumis à cette réglementation. Le consommateur doit retourner le produit usager aux points de collecte prévus à cet effet. Il peut aussi le remettre à un revendeur. En permettant enfin le recyclage des produits, le consommateur contribuera à la protection de notre environnement. C'est un acte écologique.

**(D) Hinweis zum Umweltschutz:**



Ab dem Zeitpunkt der Umsetzung der europäischen Richtlinie 2002/96/EU in nationales Recht gilt folgendes:

Elektrische und elektronische Geräte dürfen nicht mit dem Hausmüll entsorgt werden. Der Verbraucher ist gesetzlich verpflichtet, elektrische und elektronische Geräte am Ende ihrer Lebensdauer an den dafür eingerichteten, öffentlichen Sammelstellen oder an die Verkaufsstelle zurückzugeben. Einzelheiten dazu regelt das jeweilige Landesrecht. Das Symbol auf dem Produkt, der Gebrauchsanleitung oder der Verpackung weist auf diese Bestimmungen hin. Mit der Wiederverwertung, der stofflichen Verwertung oder anderer Formen der Verwertung von Altgeräten leisten Sie einen wichtigen Beitrag zum Schutz unserer Umwelt.

**(I) Informazioni per protezione ambientale:**



Dopo l'implementazione della Direttiva Europea 2002/96/EU nel sistema legale nazionale, ci sono le seguenti applicazioni:

I dispositivi elettrici ed elettronici non devono essere considerati rifiuti domestici. I consumatori sono obbligati dalla legge a restituire i dispositivi elettrici ed elettronici alla fine della loro vita utile ai punti di raccolta collerici preposti per questo scopo o nei punti vendita. Dettagli di quanto riportato sono definiti dalle leggi nazionali di ogni stato. Questo simbolo sul prodotto, sul manuale d'istruzioni o sull'imballo indicano che questo prodotto è soggetto a queste regole. Dal riciclo, e re-utilizzo del material o altre forme di utilizzo di dispositivi obsoleti, voi renderete un importante contributo alla protezione dell'ambiente.

**(P) Nota em Protecção Ambiental:**



Após a implementação da directiva comunitária 2002/96/EU no sistema legal nacional, o seguinte aplica-se:

Todos os aparelhos eléctricos e electrónicos não podem ser despejados juntamente com o lixo doméstico. Consumidores estão obrigados por lei a colocar os aparelhos eléctricos e electrónicos sem uso em locais públicos específicos para este efeito ou no ponto de venda. Os detalhes para este processo são definidos por lei pelos respectivos países. Este símbolo no produto, o manual de instruções ou a embalagem indicam que o produto está sujeito a estes regulamentos. Reciclando, reutilizando os materiais dos seus velhos aparelhos, esta a fazer uma enorme contribuição para a protecção do ambiente.