

# LUX series

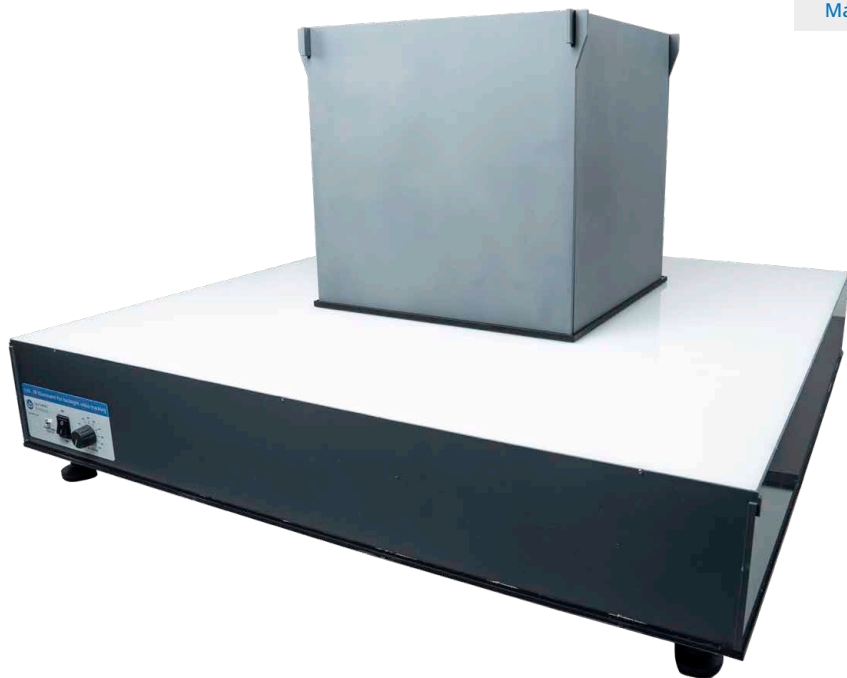
## IR illuminator for backlight video tracking

### Instruction manual

Revision 1.1



Behaviour  
Mazes, Tracking



SKU: LUX 70, LUX 100, LUX 160



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## *SAFETY CONSIDERATIONS*

Although this instrument has been designed with international safety standard, this manual contains information, cautions and warnings which must be followed to ensure safe operation and to retain the instrument in safe conditions.

Service and adjustments should be carried out by qualified personnel, authorized by Ugo Basile organization.

Any adjustment, maintenance and repair of the powered instrument should be avoided. If inevitable, it should be carried out by a skilled person who is aware of the hazard involved.

Capacitors inside the instrument may still be charged even if the instrument has been disconnected from its source of supply.



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## **CE CONFORMITY STATEMENT**

Manufacturer **UGO BASILE Srl**  
Address Via G. di Vittorio, 2 – 21036 Gemonio, VA, ITALY  
Phone n. +39 0332 744574  
Fax n. +39 0332 745488

### ***We hereby declare that***

Instrument: **LUX SERIES: IR illuminator for back light video tracking**  
Catalog number: **LUX 100, LUX 70, LUX 160**

***is manufactured in compliance with the following European Union Directives  
and relevant harmonized standards***

- ***2014/35/UE relating to electrical equipment designed for use within certain voltage limits***
- ***2014/30/UE relating to electromagnetic compatibility***
- ***2011/65/UE and 2015/863/UE on the restriction of the use of certain hazardous substances in electrical and electronic equipment***

**Account Manager**

**Mauro Uboldi**

Nome / Name

**October 2022**

Date

Firma / Signature

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# Product features and general information

This instruction manual is valid for all the LUX device models.

LUX is an Infrared light illuminator designed to irradiate IR light to the series of the Ugo Basile transparent Infrared mazes.

The IR illumination gives the researcher the possibility to perform behavioural experiment in the dark or with minimal visible light.

This device can be used in conjunction with all Ugo Basile IR transparent mazes.

This device can be used for mice, rats and other animals that fits the Ugo Basile IR transparent maze.

**A typical set-up is made by the following equipment:**

- The LUX
- One or multiple mazes of the Ugo Basile IR transparent mazes product line
- One IR video camera for video tracking with multi focal lens complete with a stand or a ceiling attachment
- A video tracking software



# What's in the box

## **SKU: LUX (all models)**

In the LUX package You will find the following items:

- 1 LUX back lit IR illuminator device (depending of the model you purchased)
- 1 The external Power supply 12V/5A (not in the LUX 160)
- 1 Power cord according to your country
- This printed instruction manual

# 1 Installation

## 1.1 Unpacking & preliminary check

Check the content of the shipment for completeness and visually inspect the instrument as soon as you take it out of the packaging.

If the box looks damaged, inform the carrier and provide a conditional signature (not a full signature).

Once unpacking, if the instrument is damaged, notify our company, by writing an email to [support@ugobasile.com](mailto:support@ugobasile.com)

If after a test, the instrument fails to meet the expected behaviour and performance, please contact our after sales service at [sales@ugobasile.com](mailto:sales@ugobasile.com).

Protect the environment: dispose of packaging properly, according to existing and applicable waste management rules and regulation.

Remove the device from the package and remove all the packaging material from the device.

## 1.2 Notes on the instruction manual

This instruction manual included in the box is necessary for a correct installation and operation of the instrument.

Please save the manual, keep it ready to be consulted by the qualified personnel using the instrument.

Our Instruction Manuals are available as free download on our web site, [www.ugobasile.com](http://www.ugobasile.com)  
For any additional information and/or assistance, you are welcome to contact our Service Department, first of all by specifying the serial number of your instrument ([service@ugobasile.com](mailto:service@ugobasile.com))

LUX Support QR code:



## 1.3 Safety instruction

The following guide lines must be followed to ensure safe operation:

- DO NOT attempt to open or perform any service work before having contacted Ugo Basile support team
- DO NOT use the device on human subjects
- Maximum load on the device surface LUX 100 45Kg, LUX 70 35kg.
- Always disconnect the main power before moving the illuminator.

## 1.4 Assembling the instrument

- Place the LUX device on a stable and flat surface (floor or table), the white side up.
- Regulate the 4 adjustable footer to level the device
- Connect the power supply cord to the power supply unit and to the AC outlet, or directly to the device in the case of LUX 160.
- Place the maze/s over the illuminator surface.  
Pay attention in placing maze/s in the LUX centre.

## 1.5 Powering on

The control panel (see figure below ) is positioned beside the instrument itself and incorporates, from left to right, the inlet connector and the ON/OFF switch.



*LUX control panel (LUX 160m may differs from this picture)*



## 1.6 Intended use

The LUX device is intended for **investigation use on laboratory animal only**.

## 1.7 Additional safety consideration

- Use original accessories and spare parts only
- Immediately disconnect and replace damaged main cord
- Do not operate in hazardous environment or outside prescribed environmental limitation
- Do not spray any liquid on the connectors, or other parts

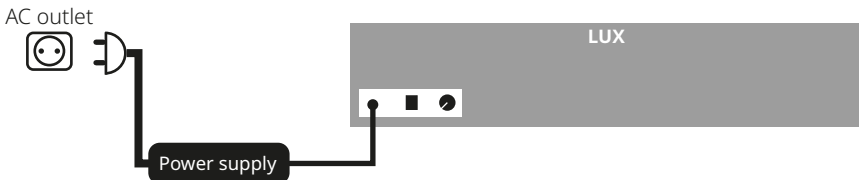
**Ugo Basile cannot in any way and form be held responsible for damage caused to things and people and warranty will be void, due to:**

- Incorrect electrical supply
- Incorrect installation procedure
- Incorrect or improper use or, in any case, not in accordance with the purpose for which the instrument has been designed and the warnings stated in the instruction manual supplied with the instrument
- Replacement of original component, accessories or parts with others not approved by the manufacturer
- Servicing carried out by unauthorized personnel

## 1.8 Connections

Connect the mains cord between the power socket of the LUX external power supply and the power outlet.

Connect the external power supply cord to the LUX power connector



*LUX 160 is having an internal power supply, You need to connect the power cable frmko the outlet directly to the LUX 160 power unit.*

## 2 Operation

For best experiment results, You need to regulate the IR intensity of the LUX to fit Your video tracking requirements, looking into the Your video tracking software windows in order to regulate the video camera zooming, focus and aperture.



*LUX control panel*

A typical set-up is made by:

- The LUX as a back-lit IR illuminator for IR maze/s
- The IR transparent maze or multiple mazes placed on top of it
- One video camera placed on top of the set-up
- A video tracking software

To start to generate IR emission press the ON/OFF switch in position ON, the LUX will start emitting infrared light (not visible)

Use the IR intensity knob to increase or decrease the IR radiation emitted by the LUX according to the view on Your video tracking software.

You need to find the best setting in order having the best possible contrast between background and animal shape to perform the best video tracking possible and to achieve this goal You need to regulate:

- LUX IR intensity
- Video camera lens aperture
- Video camera software gain (if provided)

## 3 Maintenance

While any service of the instrument ought to be carried out by Ugo Basile personnel or by qualified personnel authorized by Ugo Basile organization, this manual section describes normal maintenance procedures which can be carried out at your facility.

### **UNPLUG THE MAIN CORD BEFORE CARRYING OUT ANY MAINTENANCE JOB**

The device does not require any particular maintenance.

## 3.2 Cleaning/disinfection

The LUX does not require any maintenance apart from normal cleaning.

Cotton wool and water can be used for cleaning purposes.

For disinfection, use a non-alcoholic disinfectant, or a  $H_2O_2$  solution for with the minimum concentration allowed by your sanitization department, high  $H_2O_2$  concentration for a long period of time may damage your LUX.

## 3.3 Long Inactivity

The instrument does not require any particular maintenance after long inactivity, except cleaning.

## 3.4 Customer Support

For any further information you may desire concerning the use and/or maintenance of the LUX, please do not hesitate to contact our service department (or our local distributor) either directly or via our support page <http://www.ugobasile.com/support.html>:

Before sending any instrument to our factory for repair, please contact our logistics department to obtain a return authorization number (RMA) and shipping/packing instructions. We may not be held responsible for damages during transport due to poor packing; whenever possible, please use the original packing.

## 4 Specification

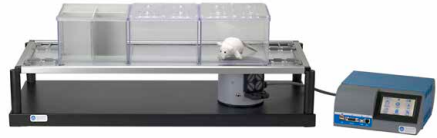
General	LUX 70 & 100	LUX 160
Power supply input	100/240VAC-50/60Hz	100/240VAC-50/60Hz
Power supply output	12VDC 5A	Integrated
Max power consumption	60W	200W
Sound Level	< 45dB	< 45dB
Operating environment	0°C to 40°C; 5% to 95% RH (non-condensing)	0°C to 40°C; 5% to 95% RH (non-condensing)
<b>Operation</b>		
IR emission dimming	From 0 to 100%	From 0 to 100%
Wave length emission	940 nm	940 nm
<b>Physical weights</b>		
Max surface load	35 kg (LUX70) 45 kg (LUX 100)	65 kg
<b>Physical dimensions</b>		
LUX 70 (cm) LUX 100 (cm)	70(w) x 70(d) x 18(h) 100(w) x 100(d) x 18(h)	160(w) x 160(d) x X17.4(h)
Illuminated area (cm)	LUX70: 69(w) x 69(d) LUX100: 99(w) x 99(d)	
<p><b>Warranty</b>            This device is covered by 12-month on-factory manufacturer warranty.            An additional 12 month on-factory warranty period (total 2 years) is available for free upon device registration on <a href="http://register.ugobasile.com">register.ugobasile.com</a></p> 		



For other Ugo Basile products related to this device visit [ugobasile.com](http://ugobasile.com) web site for details



TGR - Thermal Gradient Ring (Zimmermann's method)



The original Plantar Test for thermal stimulation (Hargreaves Apparatus)



Dynamic Plantar Aesthesiometer (DPA) for mechanical stimulation



Thermal Place Preference (TPP Test) for Mice & Rats



Plethysmometer, the 1st and original device for measuring paw volume & oedema



Analgesy-Meter the 1st and original Randall-Selitto paw-pressure test

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Via Giuseppe Di Vittorio 2, 21036 Gemonio (VA) ITALY - Tel. +39 0332 744574 - [sales@ugobasile.com](mailto:sales@ugobasile.com)

4 Specification



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Hot/Cold Plate NG for screening of thermal hyperalgesia/allodynia



e-VF Handheld Electronic Von Frey of original design



PAM Pressure Application Measurement (for joint pain)



Orofacial Stimulation Test (Fehrenbacher, Henry, Hargreaves method)



Tail-Fllick Unit, thermal stimulation of the tail, according to D'Amour & Smith method



I.R. Heat-Flux Radiometer for Tail Flick and Plantar Test

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The 1st, original Mouse RotaRod for motory coordination studies



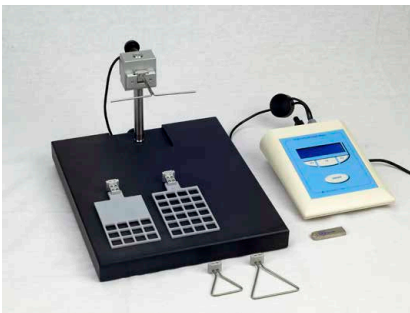
OPERON (Papaleo-Scheggia's method) for Attentional Set-Shifting Task



Fear Conditioning System - ANYmaze



Rodent Treadmill NG with interchangeable lane assembly for rats or mice



GSM Grip-Strength Meter for mice and rats



The Rota-Rod Family

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free 12 additional warranty months  
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