

PAPILLON ExpertLab

Camera & Lighting Equipment for Detecting, Reproducing and Photographing Forensic Evidence

Information Bulletin № 63, March 2011

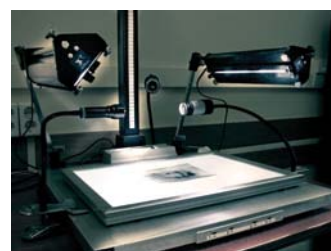


Dark-field box. Before the sample is illuminated with fill-in light



After the sample is illuminated with fill-in light covered with slit shades

- 1 Stand
- 2 Fill-in lighter
- 3 Object holder
- 4 Spotlight
- 5 IR emitter
- 6 PAPILLON TVC-9.1 USB camera
- 7 UV source



Translucent platform



Bottle holder



Object holder

Applications

- Thorough, efficient examination of material evidence with the view of finding the impressions of hands, footprints, as well as the traces of etching, wiping off, erasing, filled-in scratches or inscriptions and indented writing
- Forensic quality evidential photography of objects and marks.

Capabilities

- Examination and photography of objects in reflected, inside (back) and oblique light
- Examination and photography of objects using the dark-field method
- Examination and photography of objects in ultraviolet and infrared rays
- Shadow-free photography of three-dimensional objects
- Photography of objects of different shapes and sizes, mounted at any angle to the camera objective using diverse mounting accessories

Product Description

PAPILLON ExpertLab is a facility consisting of a stand and a set of detachable lighters providing a wide range of illumination conditions for studying objects and for capturing images. For fixing the objects special holders are used. Besides, the station is fitted with a dark-field box and a translucent platform.

The stand consists of a baseboard (stage) with a printed grid for object positioning and a column with a centimeter scale. The column has a sliding block for mounting a camera (PAPILLON TVC-9.1 USB or any other camera of your choice) which allows you to move the camera both horizontally and vertically. The stage has an embedded electronic controller with switches on the front face of the stage for easy adjustment of intensity of four light sources. These four adjustable lighters and the power supply unit are attached to sockets located on the rear face of the baseboard. There is also a complementary 12V outlet for attaching peripheral devices.

The set of lighters delivered with **PAPILLON ExpertLab** includes sources of fill-in (booster) light, a spotlight projecting a light beam of adjustable width and focus, an infrared (IR) emitter and an ultraviolet (UV) source. Except for the last-named, LEDs are used as light sources in all lighters. The lighters are secured with clips in places where you want. The fill-in light sources are set on stiff adjustable holders. They can be covered with an adjustable slit shade in order to produce a flat beam of light. Both the spotlight and the IR emitter are mounted on flexible holders allowing the lighters to be shifted and tilted in three planes. The light intensity emitted by the IR source can be gradually varied with a dimmer.

To operate with complex objects (footprints, exfoliation marks, faint impressions, undeveloped latent finger and palm prints, etc.) and to take non-glare pictures, the dark-field box can be of great use. Its top face is made of glass, on which an object is placed for photographing.



PAPILLON ExpertLab includes also a translucent platform and two types of holders - object holder and bottle holder. The translucent platform is made as a lightbox providing an evenly lighted flat surface. A dimmer is used for varying the brightness of light.

The object holder is an implement for holding various objects being examined and/or photographed, which is fixed to the table with a clamp. The bottle holder is a special gripper for bottles, glasses and other bottle-like (axisymmetric) objects. This holder comes complete with interchangeable conical attachments and lengtheners. It lets you easily tilt and pivot specimens under study.

Optionally, **PAPILLON ExpertLab** can come with:

- PAPILLON TVC-9.1 USB camera with integrated IR filter
- PAPILLON RASTR software
- Trinocular microscope

Technical Specifications

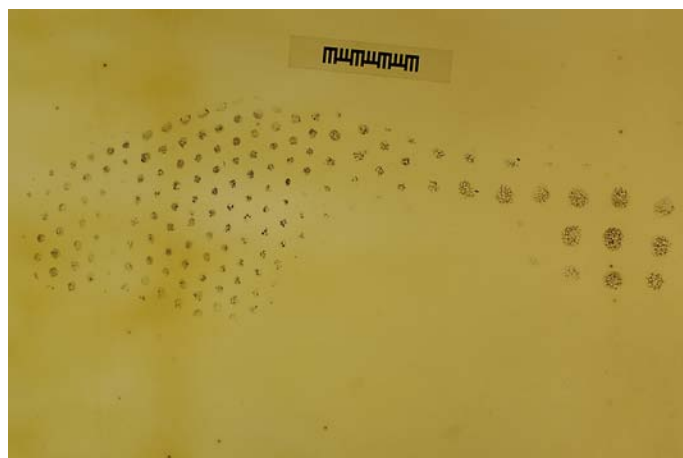
Camera height adjustment (min – max), mm	100-750
Power (220V, 50 Hz via adapter), V	12
Number of controlled power outlets	4
Number of additional outlets (uncontrolled)	1
Power consumption (max), watt	30
Object holder range, mm	0...35
Maximum diameter of bottle-like objects, mm	110
Maximum length of bottle-like objects, mm	320
Dimensions, mm	520x520x845
Weight (max), kg	18

Components

Stand	1
Fill-in lighter with detachable slit shade	2
Object holder	1
Translucent platform	1
Dark-field box	1
Spotlight	1
IR emitter	1
UV source UVL-23R	1
Small object and ruler holder	1
Bottle holder with accessories	1
Dimmer	1
Set of scales	1
Metal ruler	1
Power supply unit	1



Indented writing restoration



Footprint image captured using the translucent platform



Dark-field illumination of undeveloped latent using the dark-field box



Dark-field imaging of a dust track