

Assembling instructions Startle PPI system Optional Black & White USB Camera

July 2025 revision 1.0



This guide refers to the product SKU 47400-050

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 opened instrument under voltage should be avoided as much as possible and, when inevitable, should be carried out by a skilled person who is aware of the hazard involved.

Product features and general informations

The cubicle internal video camera on the Startle PPI systems is not provided as standard and can be bought together with the system or later the system delivery using the SKU 47400-050.

While the isolation cubicle provided with Startle PPI system is complete of an IR and a visible light source, it is possible to add a video camera (system is ready to hold it) to visualize the animal behaviour during the animal stays inside the isolation cubicle.

Our standard video camera SKU 47400-050, description: B/W USB Camera and is a industrial video camera not IR filtered so You can monitor the scene in obscurity by the internal IR illuminator.

Video camera is not directly supported by the Ugo Basile Startle PPI software yet, but You can use the software provided by the camera manufacturer to view and record videos from the isolation cubicle inside during the Startle PPI experiment, here is the link at the camera manufacturer web page to download the software:

<https://www.theimagingsource.com/en-us/product/industrial/37u/dmk37aux287/>

The video recording is for visual control only, the Ugo Basile Startle PPI software does not need the video recording to perform the experiment and the video camera is not mandatory for the experiment but can be very useful.

The video camera can be used in the habituation phase to having knowledge of the animal condition and to understand if the animal is calm enough to perform a correct startle reflex pre-pulse inhibition test.

The Ugo basile Isolation cubicle is already provided with all the component to hold the video camera, You just need to have the video camera in Your hands and few simple tools.

If You want to use Your Startle PPI set-up also to perform Fear Conditioning test, You need to mount the video camera, adding a Fear Conditioning cage for mouse or rat + the Freezing detection software ANY-maze in the Fear Conditioning limited version (which is cheap) or the full version able to make many other behavioural test.

Requirements:

Tools needed:

One 2.5 Allen key

One medium size Philips screw driver

Please note that tool requirement can change, depending the product production lot.

Time required:

30 min by a technician

Required skills:

No particular skills are required; the ability to use a screwdriver and the ability of handling electronic connector

Risks:

There are not danger or risk of electric shock while handling USB low voltage connections; in any case You need to detach the power plug off the Isolation cubicle before carrying any operation.

Introduction note:

The isolation cubicle is provided by all the necessary part to hold the video camera, like:

The USB cable connecting the video camera to the PC it is already inside the Isolation cubicle

The mechanical Video camera holder is already inside the isolation cubicle illuminator.

What You really has to do is just to mount the camera inside the white Isolation Cubicle illuminator assembly, attach the USB connector to the camera and attach the video camera cae from the isolation cubicle back to Your PC USB port.

Summary of the mounting phases:

1. Preparation
2. Demount the illuminator assembly
3. Mount the video camera into the assembly
4. Mount the illuminator assembly on the isolation cubicle roof
5. Test the system for correct functionality

1. Preparation:

Open the video camera package and check for eventually evident damage; in case you suspect transport damage, do not proceed mounting the camera but contact the Ugo Basile support: service@ugobasile.com

If the camera seems not damaged place it apart ready for mounting.

Be sure to have the necessary tools within reach.

Switch the Isolation cubicle OFF by the rear Power switch and detach the power cord.

Empty the Isolation cubicle of all the inside parts, like the Startle PPI platform or other component.

Detach all the cable connected to the isolation cubicle.

2. Demount the illuminator assembly:

The illumination assembly is inside the isolation cubicle and appears as showed in the picture below:



Using the 2.5 Allen key unscrew the 4 screws fixing the illuminator diffuser to the cubicle roof.

ATTENTION:

When all the four screws are removed, the entire illuminator assembly falls down and if not supported can brake an electrical connection inside. You need to hold the illuminator assembly while removing the four screws to avoid internal component damage.

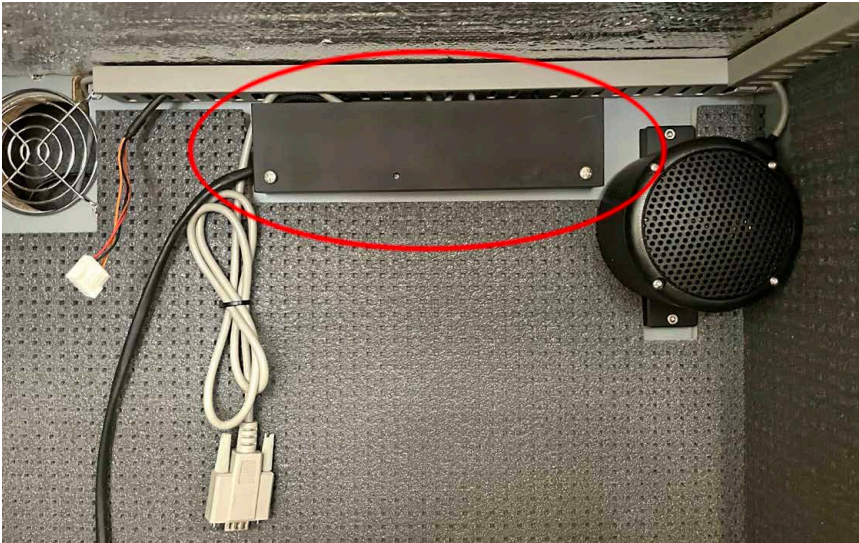
You may also want to flip the entire cubicle up side down to avoid the illuminator falling down.

Remove the four Allen screws fixing the illuminator assembly to the cubicle roof.

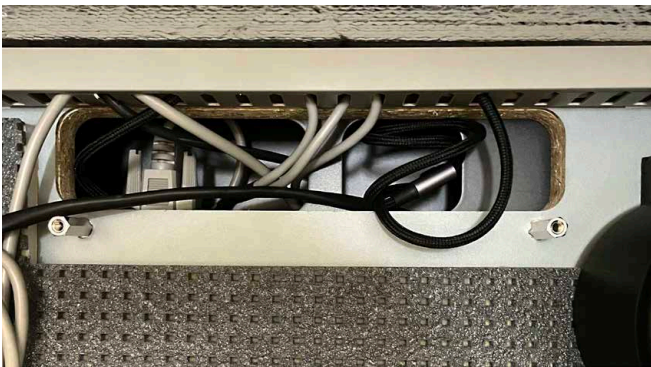
Supporting the illuminator You will find an internal rear cable connector that You need to detach. In order detaching this connector You need to press the rear connector side to open the latch and pull the cable out:



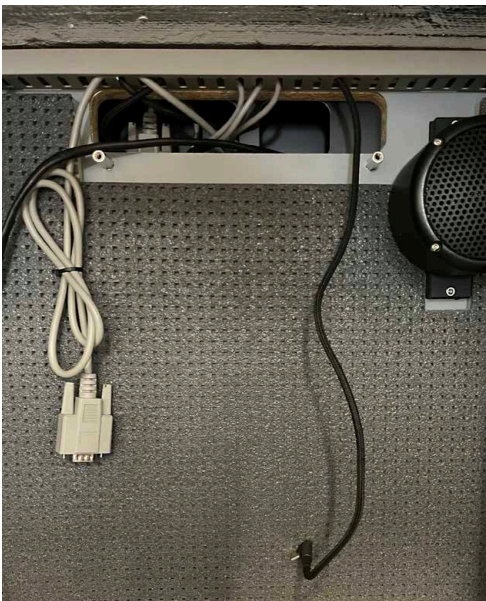
If You find the USB camera cable fixed by adhesive tape inside the illuminator, detach it from the illuminator to be able to place the illuminator apart. If You do not find the USB camera cable inside the illuminator You need to take it out from the cubicle inside rear. In this case the cable is located behind the black cover, see the following picture:



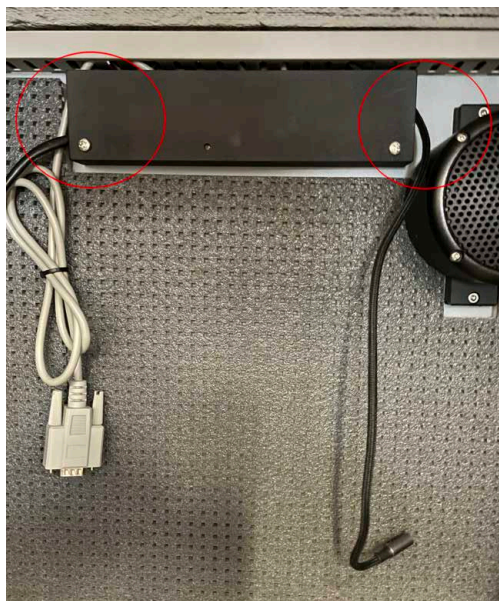
To handle the cable You need to demount the black separator removing the two screws. Remove the black separator and take the USB cable out, then passing all the cables beside the separator, remount the separator screwing back the two screws.



The USB cable



The USB cable



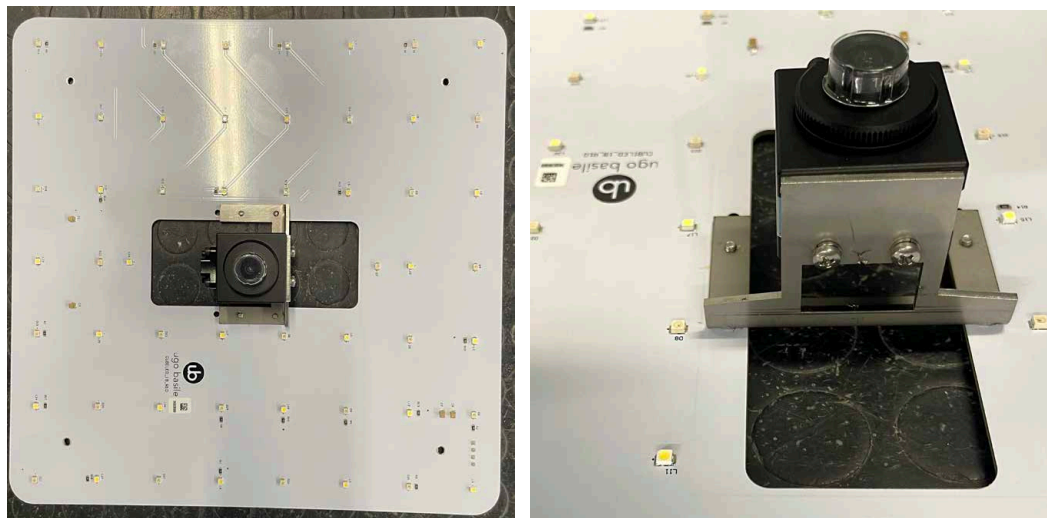
The separator re-mounted with the cables in the right position (beside the separator)

3. Mount the video camera into the assembly:

Place the extracted illuminator assembly on a flat place up side down and using the Philips screw driver remove the four screws fixing the LED PCB

Mount the video camera on the PCB as illustrated in the following picture, using the provided screws.

Please note the video camera orientation on the picture:



4. Mount the illuminator assembly on the isolation cubicle roof

Re-mount the PCB with the attached video camera to the illuminator diffuser using the 4 screws. Pay attention to the PCB orientation, see the following picture (connector at the same side of the holes).



Connect the USB cable to the video camera and re-mount the illuminator assembly on the isolation cubicle roof with the 4 screws.

5. Test the system for correct functionality

Reconnect the cubicle wires and power cable and test the video camera functionality using the software you can download from the camera manufacturer web page:

<https://www.theimagingsource.com/en-us/product/industrial/37u/dmk37aux287/>