# Reflex Light Barrier Jokie



# **Instruction Manual**

Status: August. 2012 (V1.01)

## Product description



DC socket



camera socket

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## Introduction

Dear customer,

thank you for purchasing the **Jokie** light barrier. This product has been designed and manufactured with the utmost care. It will be an easy-to-use, reliable and handy tool for every discerning photographer.

If you have any wishes or suggestions for improvement, please do not hesitate to contact us accordingly. By doing so you will contribute to product development and help us meet your requirements.

Please read the operating instructions carefully prior to using the light barrier. Here you will find out more about operating modes and product functions. This is the right way to take full advantage of all benefits provided by this device.

## Handling instructions

#### Purpose of use

Jokie light barrier has been designed only for photo cameras, photographic lightning equipment or film devices.

Please use it for these purposes only!

#### Symbols



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Hints on handling.

Important information on the function of device.

Important information for avoiding damage to the device or related equipment.

#### Maintenance and Storage

- This light barrier is not waterproof and should not be used in the rain, or where the device can get wet. If Jokie gets wet, please contact the manufacturer immediately. Water droplets should be carefully wiped away with a dry cloth.
- Avoid dropping your unit and protect it from hard shocks and impacts.

- This device is an electronic precision system. Please do not try to perform any modifications by yourself.
- We recommend wiping light barrier lens gently with a soft cloth from time to time.

## **Operating modes**

There are two operating modes for the **Jokie** light barrier: "sensitive" and "distance".

You can choose between them using the mode switch. You can activate the mode switch by means of some sharp object, e.g. tweezers, pen, etc.

The difference between these modes lies in the range (distance between light barrier and reflector) with regard to the smallest ascertainable object.

The table below illustrates parameters for both operating modes:

	sensitive	distance
range app. [m]	4	10
smallest ascertainable object app. [mm]	0,5	5
LED* colour	green	redt

\* light emittimg diode



mode: sensitive

without reflection the led glows green



mode: distance

without reflection the led glows red

## Connection to the power supply

The light barrier requires an external power supply to be activated.

This can either be an adapter, battery, battery pack or other voltage sources capable of 4,5-15VDC.

 Please connect the voltage source via 1,7 x 4 mm extra low voltage connector to the plug.



DC socket



If you do not use the provided battery holder and connection cable, please ensure the right polarity! The device will not get broken, but it will not operate if the polarity is wrong either.

## Alignment of the light barrier

- 1. Mount the light barrier and reflector on a tripod, clamp or similar.
- 2. Put reflector against the light barrier.
- 3. Connect the light barrier to the voltage source.
- Point the light ray of the light barrier at the reflector as accurate as possible. While pointing, observe the LED. As long as it is lit, the light beam does not hit the reflector.



It must be assured that the light barrier is firmly anchored with the reflector without shaking. This will have a great impact on reliability of the device's activity. Shaking constructions can frequently cause false triggers of the connected device.

## Activating the light barrier



Table tripod is not included in delivery

The light barrier gets immediately activated once plugged to a voltage source.

Once the light beam is interrupted, the light barrier will trigger the connected camera, and the LED will glow as long as the beam is interrupted.

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Please connect the camera only once a functional test as well as all light barrier settings are completed.

## Connecting the camera



Camera socket

Insert the 3-pole jack plug of the adapter cable in the camera socket; the other end to the camera.



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If you use your self made camera adapter, please observe the connection assignment.

Connect the camera adapter to the light barrier <u>before</u> alignment. Connect the other end of the adapter to the camera only <u>after</u> completing the alignment, functional test as well as all other settings. By doing so you will avoid shaking of your construction that you have been arduously working on.

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Important to know when taking pictures with the light barrier : you should always set the cameras auto focus to "manual" mode! The Auto-Focus will be substituted by the light barrier.

2,5 mm jack, pinnig

2,5mm Klinkenstecker, 3 polig



## Dealing with reflectors

A reflex light barrier, due to its functional principle, always needs a reflector to reflect back a part of the emitted light.

By choosing the right reflector one can influence the size of the smallest ascertainable object and also the operating distance.

The bigger the reflector the larger the operating distance. And vice versa, the smaller reflector the tinier the smallest ascertainable object.

The tables below show the described relationships:

 Operating distances varies depending on reflector diameter:

Operating mode distance:

	D=80mm	D=40mm	D=20mm
Range app.	10m	7m	2,9m

Operating mode sensitive:

	D=80mm	D=40mm	D=20mm
Range app.	4m	0,7m	0,45m

• Dependencies between the size of the smallest ascertainable object and the distance between light barrier and reflector as well as reflector size.

Operating mode distance:

	D=80mm	D=40mm	D=20mm
1m		17mm	6mm
1,5m		25mm	5mm
2m	45mm	20mm	
4m	35mm	15mm	
8m	25mm		

Operating mode sensitive:

	D=80mm	D=40mm	D=20mm
0,3m			0,5mm
0,4m		8mm	0,5mm
0,7m		1mm	
1,5m	25mm		
2m	20mm		
4m	12mm		

## **Technical Data**

#### Type and characteristics

Reflex light barrier with pulsed infra red light Wavelength: 850nm

Abmessungen

(LxBxH): 64 x 36 x 20 mm

Weight

30 g

#### Power supply

4 AA batteries or rechargeable batteries (AA, LR6) DC-voltage source 4,5-15V

### **Power consumption**

ca. 120 mW

#### Maximum service life with one set of batteries

Operating mode: sensitive: > 7 days, Operating mode: distance: > 4 days (tested with average alkaline batteries)

#### Range

Operating mode distance: app. 10m Operating mode sensitive: app. 4m

### Smallest ascertainable object

Operating mode distance app.: dia. 5mm Operating mode sensitive app.: dia. 0,5mm

#### Lag time

app. 130 µs (0,13 ms)

#### **Delivery includes**

Battery holder and connection cable Reflector, D 80mm Reflector, D 40mm

#### **Related equipment**

D 20mm reflector, 5m camera extension cable (2,5mm stereo-plug/2,5mm stereo socket) 10m camera cable extension (2,5mm stereo-plug/2,5mm stereo socket) Camera adapter for diverse camera types.

Disposal hints

Dispose the batteries and the device according to your local regulation.



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Lichtschranken für Fotografie