

Handling light barriers

Releasing cameras and firing flashes by
radio remote control



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Introduction

Usually cameras or flashes are connected to a light barrier or camera trap by a cable. This kind of connection is reliable and without any losses and should be preferred whenever it is possible.

However, there are applications in which a link by radio remote control makes sense or is even more advantageous than the connection by cable.

The radio remote control

Wireless connections have the advantage that no cable has to be laid between the light barrier and the camera or the flash. In some cases, a cable can be a hindrance if, e.g. becomes a trip hazard in a crowd.

However, they also have some drawbacks that should be considered, depending on the situation, which can be more or less significant. For example, they introduce an extra time delay into the system, which can be a few milliseconds depending on the radio remote control used. Furthermore, there are two more devices in the game - transmitter and receiver - which can break and each of them needs batteries that can be empty at the crucial moment. The release duration of the receiver is different for most radio remote controls, usually much shorter than that of the controlling light barrier or camera trap. Some radio remote controls go into sleep mode after some time of inactivity.

It is therefore important to know and consider these aspects when using a radio remote control. They are mentioned in the section special features and explained as far as it is possible for us.

Connecting a radio remote control

To establish a wireless connection between the light barrier and a camera or a flash, the best solution is to use a flash radio remote control. These are offered by many accessory manufacturers. Today there are a huge number of models on the market.

A flash radio remote control usually consists of a transmitter and a receiver. The transmitter is connected to the light barrier, the receiver to the camera.



Figure 1: Connecting a camera via radio remote control

Figure 1 shows an example of a wireless connection. The light barrier and the transmitter are connected via an adapter for flash units, e.g. item #: 50078. The transmitter is triggered by the photocell via the central contact.

The receiver is connected to the camera via a camera adapter. This can already be included in the scope of delivery of the radio remote control. It is also possible to use eltima camera adapter sets as well.

Particularities

The additional contacts

Flash remote controls are designed to trigger flash devices separated from the camera. In addition to the command to fire the flash, they usually transmit other information that is exchanged between the camera and the flash unit. This includes the data of the TTL/ETTL measurement, the position of the zoom reflector, the state of charge of the flash capacitor, etc. This information is transmitted via the additional contacts located at the transmitter's flash foot and the hot shoe of the receiver. They are usually arranged next to the central contact.

Since light barriers aren't cameras, they only operate the central contact by connecting it to the metal plate of the hot shoe. The additional contacts hence are not operated by a light barrier.

However, some flash remote controls require that the additional contacts on the transmitter to be operated as if they were mounted on a camera, otherwise they do not trigger. Others can be triggered even if these contacts are not operated.

Hence, only those remote control systems can be used with light barriers, which trigger without the additional contacts being operated.

To find out if a particular flash remote is suitable for operation with light barriers, perform the following test:

Connect the receiver to the camera or a flash unit. Switch on the camera/flash unit and also the transmitter and receiver of the radio remote control. As shown in Figure 2, briefly close the transmitter's central contact with the plate of the hot shoe.

If the device connected to the receiver is triggered, the radio remote control is suitable for operation with light barriers. If it doesn't trigger, the radio remote control is not.

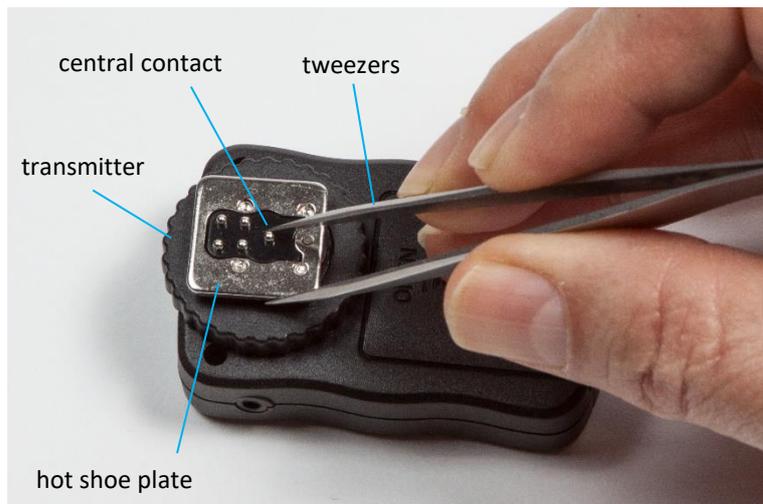


Figure 1: Testing the radio remote trigger

The release duration

When the transmitter is triggered by the light barrier, the central contact is short-circuited to the plate for a certain period of time; for the photocell Jokie² this is 300 ms. Depending on the camera model, this duration is sufficient for 2 to 3 releases in continuous mode.

None of radio remote controls tested by eltima transmitted the entire release duration. The camera only received a short impulse, causing the camera to release just once in continuous mode.

Whether this behavior can be found on all radio remote controls, we cannot say. If you see such a behavior on your system, it is likely caused by the radio remote trigger.

The sleep mode

Some radio remote controls go into a "sleep mode" after some time of inactivity, likely to save energy. Out of the sleep mode they can be woken up when the light barriers triggers.

However, this functionality means that the first trigger is lost when the wireless remote control is in sleep mode. In situations in which the light barrier is rarely interrupted, such a radio remote trigger is therefore unusable.

It is therefore important to consider all these particularities if you intend to work with radio remote controls, to avoid nasty surprises in the field!