

General adjustment instructions with particular consideration to the Digital- Analog Light Beam Indicator DIANA

The perfect function of a light barrier is not least dependent on optimum adjustment. This applies to high-gain light barriers also because the benefit of the high power is only usable with good adjustment. For that reason the following accessories are available for almost all the devices we produce:

1. Adjustment flange

The adjustment flange is a spring-supported three-point construction, such as you will be familiar with in car headlights, and it allows very precise alignment, however only in a relatively small solid angle range. The only tool necessary is a normal wrench. Its essential advantage is that once a position is found, it does not need to be secured by locknut, which usually leads to undesirable alterations.

2. The adjustment aid

The adjustment aid makes it possible to observe the photo diode through the optical system. With the aid of a light beam from the reflector or from the lens of the opposite device (torch), the device can now be adjusted so that the projection of the light beam (burning glass effect) falls onto the centre of the photo diode.

In a lot of devices in our range the photo diode can be seen even without the adjustment aid once the cover is removed.

The adjustment flange makes sensitive adjustment possible.

3. Diana, the Digital Analog Light Beam Indicator

The Digital ANALog light beam indicator is an array of four LEDs. An amplifier processes the signal at the photoelectric receiver and actuates the four LEDs in such a way that one LED after another lights up depending on the power level and the LEDs that are on already become simultaneously brighter. In this way power levels of up to 20-25 times the response threshold can be rated very well. This property allows ideal adjustment of the light barrier; if all four LEDs light up during the adjustment work and it is not possible to detect any further increase in brightness, it is a good idea to cover the light barrier optical lens to the extent that only one DIANA LED is on. Try optimisation again. Do not forget to remove the cover on the optical lens.

Where the light paths are long, it will hardly be possible to dispense with the basic setting as described in paragraph 2.

During normal operation in particular DIANA provides good service as the current power status can be recognised at all times.

DIANA is always fitted permanently into the receiver. On request a DIANA indicator can be fitted into the transmitter in transmitter-receiver light barriers but these must be actuated by the receiver.