

# Accessories Safety Technology




**Instruction manual**  
**Laser alignment device LAD 4**

# Laser alignment device LAD 4

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## SYMBOLS

 This symbol indicates an important personal safety warning. Failure to comply with the warning may result in very high risk for exposed personnel.

 This symbol indicates an important note.

## GENERAL



The **LAD 4 – Laser Alignment Device** – is designed to contribute to a reliably quick and easy installation of di-soric safety light curtains.

The device emits a visible red laser beam, thanks to which it is possible to correctly align the emitter and the receiver of the light curtain.

Especially when the alignment of the light curtains is made over large distances or when deflection mirrors are used, the **LAD 4** is an enormous help.

The device is powered by two AAA batteries, and can therefore be used very independent and flexible. Batteries are included in the packaging.

The **LAD 4** has an operating distance from up to 100 m and suits for use with all **SLxx ... Safety light curtains / -grids**. Also it is usable with the **Mounting columns FMC**.

**For the safe use of the LAD 4 laser alignment device, it is essential to read and understand the contents of this handbook. Consider di-soric in case of any open questions or further needed information's.**

**The following warnings are fundamental for people's safety. Follow all the warnings carefully, to avoid risks of eye injuries.**

**Inappropriate use may result in hazardous radiation exposure. Pay attention to accident prevention rules and laser class.**

## Warning notice









- The device contains a laser source Class 2, according to EN 60825-1.
- LAD 4 has solely been conceived as an aid for the alignment of optical light curtains. **DO NOT USE** as a laser pointer on screens, posters, presentations or similar.
- LAD 4 is a working tool of exclusive professional use. See that the staff in charge has read and understood these instructions and warnings thoroughly and is well aware of the possible risks arising from a non-correct use.
- Never use outside the working environment and don't let untrained personnel access it, children in particular.
- Always keep this manual together with the device.

## User cautions



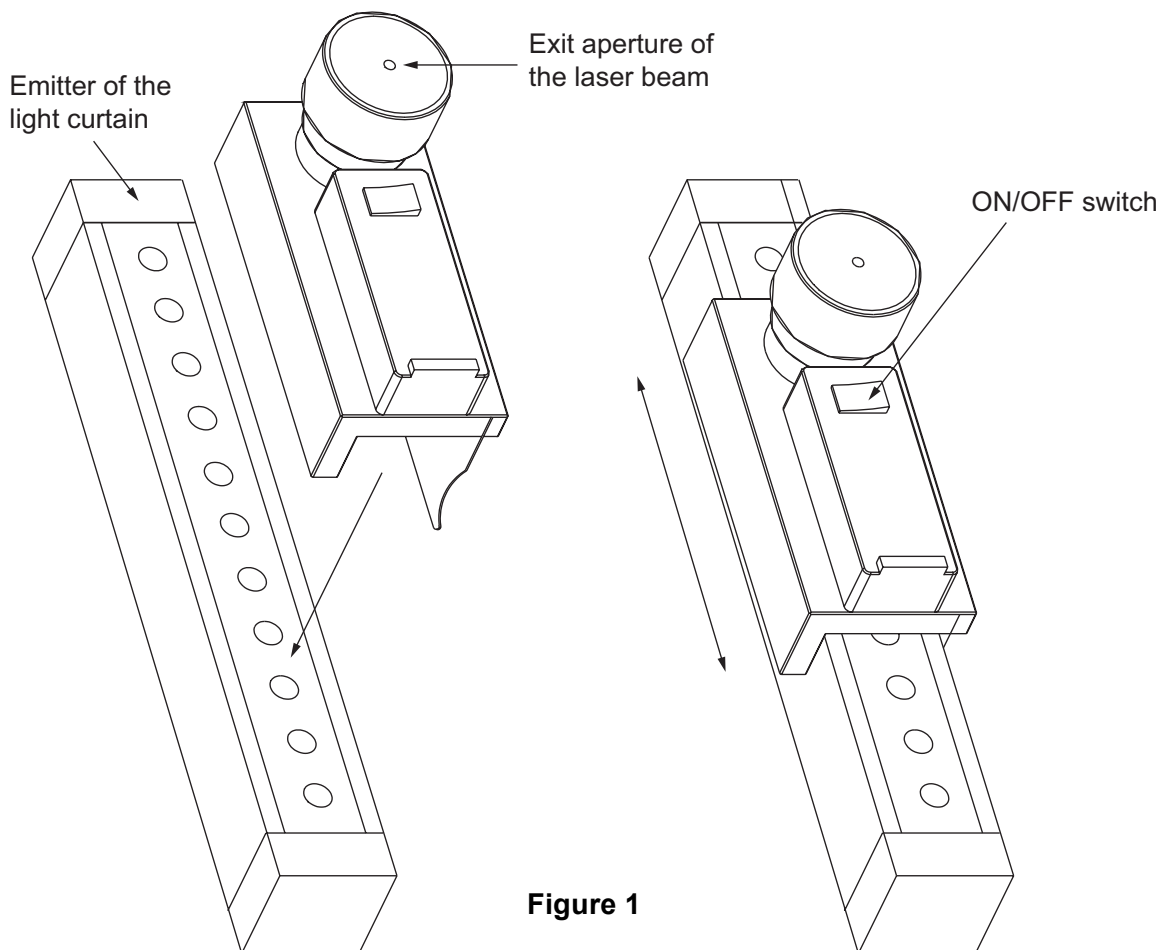
The following cautions are essential for the safety of the user. Follow all these instructions carefully, to prevent the danger of serious eye injuries.

-  Never aim the laser source directly at the eyes of others or to your own. Never look directly into the source!
-  Keep the laser switched on only for the time, which is strictly necessary for the alignment of emitter and receiver.
-  Make sure, that the device is switched off before putting it away.
-  If you have to keep the LAD 4 inactive for some time, take the batteries away from it and keep them separately.
-  Guard the device and don't let any unauthorized person access it.
-  For more details check the European Standard EN 60825-1.

## Assembly and adjustment

Carry on an unaided, preliminary alignment after the installation of the light curtain and of the possible deflection mirrors. Then:

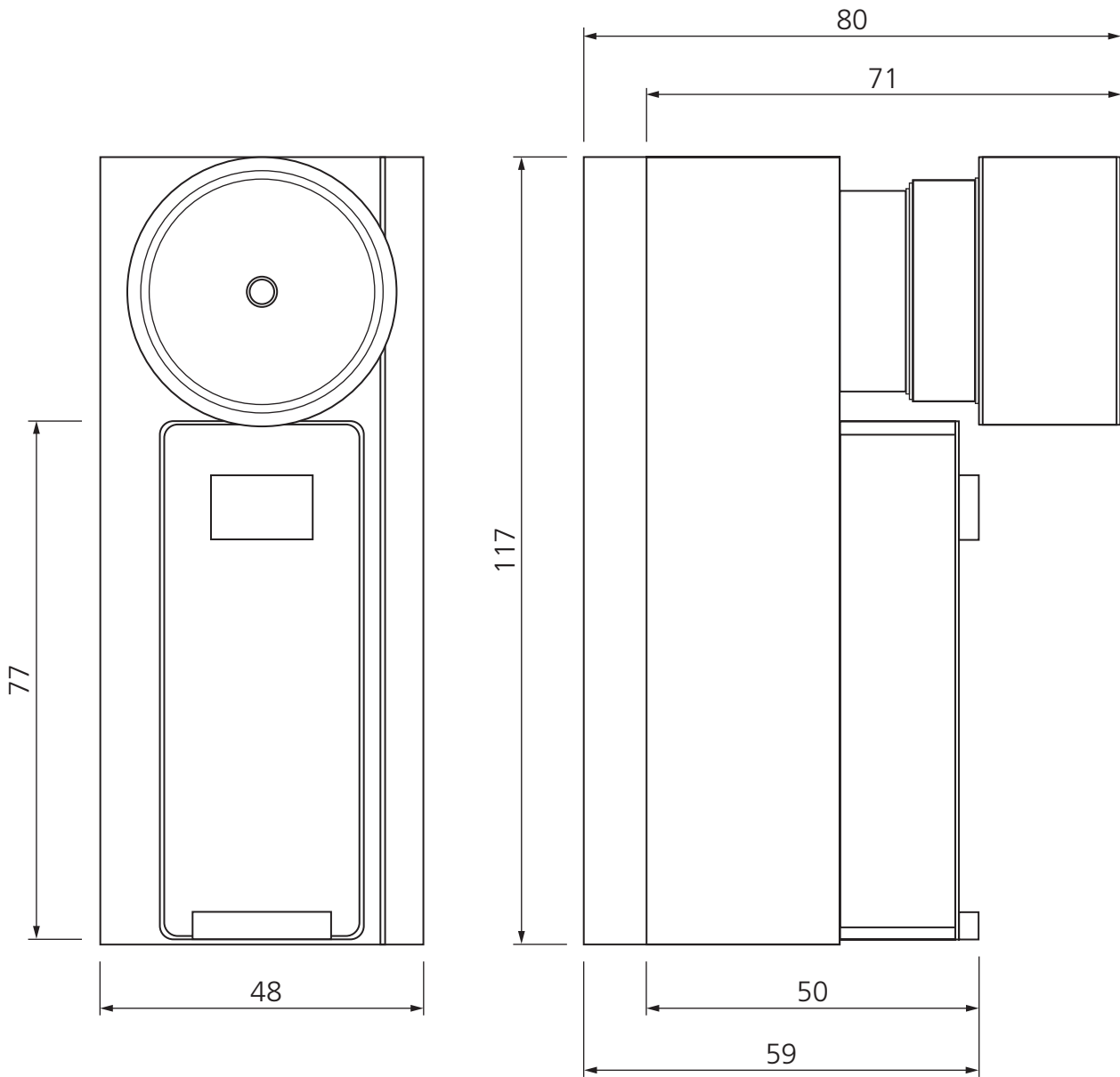
- Hook the **LAD 4** to the emitter along its vertical axis on the side of the optical window (see **figure 1**)
- The correct coupling insures a following good work.
- Check that no person is present in the laser field of action.
- Power on the **LAD 4** (see **Figure 1**).
- Check the presence of the red beam by means of a white sheet of paper.  
→ **NEVER look directly into the laser beam!**



**Figure 1**

- Check that the red spot appears on the receiver side.
- The position of the red spot should match horizontal and vertical with the position of the **LAD 4** on the emitter side.
- In case the spot is not in the expected position, adjust the alignment of emitter and receiver through the mounting brackets.
- For a more precise alignment, it is convenient to make the adjustment placing of the spot in the upper, middle and lower parts of the light curtain.

**Dimensions**



**Figure 2**

## Battery replacement

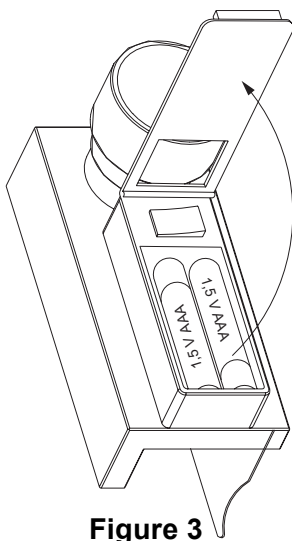


Figure 3

Two AAA 1.5 V batteries power the laser alignment device **LAD 4**. Use alkaline batteries only. A first set is provided with the device.

Exchange of batteries:

- → **Make sure, that the LAD 4 is switched off!**
- Open the battery compartment lid on the front of the device (**Figure 3**).
- Remove the old battery and install the new batteries noting the polarity indicators.
- Close the battery compartment lid.

## Technical data LAD 4

|                       |   |
|-----------------------|---|
| Mounting              | quick fastening to the light curtain / -grid or the floor mounting column   |
| Operating principle   | Laser alignment device  |
| Size                  | 117 x 48 x 80 mm (Dimensions)   |
| Emitted light         | Red light laser, 650 nm   |
| Laser class           | 2 (EN 60825-1)  |
| Service voltage       | 3 V DC  |
| Operating distance    | 100 m   |
| Laser beam divergency | < 0,5 mrad  |
| Laser power           | 1.000 $\mu$ W   |
| For                   | all safety light curtains and safety light grids SLxx, Mounting columns FMC and deflection mirrors SP from di-soric |
| Casing material       | plastics  |
| Power supply          | 1.5 V alkaline batteries type AAA (2x)  |
| Scope of delivery     | Multi-language instruction manual, 2x 1.5 V alkaline batteries type AAA   |


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## SAFETY INSTRUCTIONS

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 **Precise, complete compliance with all the rules, instructions and prohibitions indicated in this handbook is an essential requirement for correct functioning of the LAD 4 laser alignment device. di-soric therefore declines any responsibility for all and anything resulting from failure to comply, even partially, with such indications.**

**All the installation, connection and safety regulations, as per our technical information, have to be strictly adhered to.**

**The set-up of the products have to be made by skilled staff, only.**

**Repair exclusively made by di-soric.**

All technical specifications refer to the state of the art 05/15, they are subject to modifications. As typographical and other errors cannot be excluded, all data are given "without engagement".

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