

# Installation instructions BL 1000 LED/DARK

Frontal directional indicator

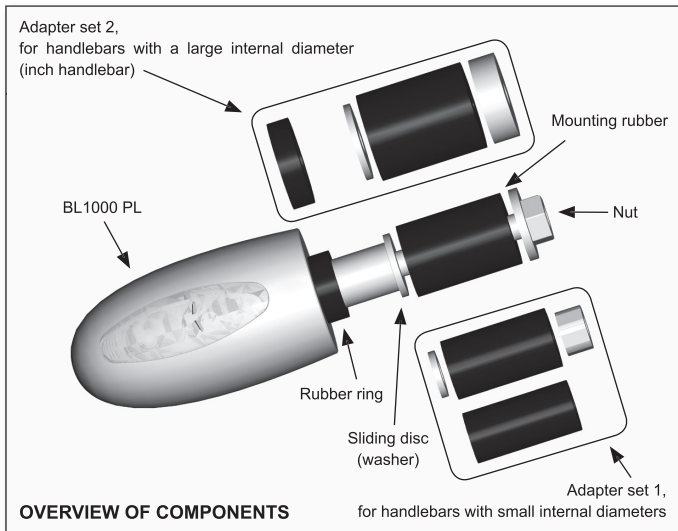
1. Overview of components
2. Legal and other information
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Dear customer,

Thank you for placing your trust in us by purchasing this product. Please read these installation instructions carefully and completely before deciding whether you would like to do the installation yourself or have it done by a specialist. If you have any questions or concerns, or if you need replacement parts, send us an e-mail (info@kellermann-online.com) or call us (0241-938080). We are happy to help.

## 1. OVERVIEW OF COMPONENTS

1. BL1000 LED/Dark
2. Rubber ring
3. Sliding disc (washer)
4. Mounting rubber
5. Nut
6. Adapter set 1, for handlebars with small internal diameters
7. Adapter set 2, for handlebars with a large internal diameter (inch handlebar)
8. Two cord connectors (not shown)



OVERVIEW OF COMPONENTS

## 2. LEGAL AND OTHER INFORMATION

The BL 1000 LED/DARK is, in accordance with installation specifications, ECE-approved as a frontal directional indicator for motorbikes that are approved according to European law. This is documented by the approval numbers stamped into the light covers. For you, this means that you can use two BL 1000 LED/DARK units instead of your original indicator lights without registering anything in your vehicle documents and without taking your vehicle to a technical inspection service. You do not need to carry any special documentation. If you would like suitable rear directional indicators, we would like to recommend the micro 1000 series. You can choose from among over twenty variations.

**ATTENTION!** Correct mounting and electrical connection are requirements for the guarantee. For this reason, only do the installation yourself if you are properly trained. Otherwise, go to a specialist and let him or her install and connect the BL 1000 LED/DARK. Damages resulting from excess voltage (e.g. as a result of a defective alternator controller) does not constitute a valid claim.

**ATTENTION!** Insufficient fastening or incorrect alignment of the BL 1000 LED/DARK can lead to a revocation of your operating license and of your vehicle insurance, and to accidents. Before every usage of your vehicle, check whether the indicators are correctly mounted and fully functional.

**ATTENTION!** The BL 1000 LED/DARK may become heated in operation. Contact with unprotected skin or heat-sensitive objects may lead to adverse effects.

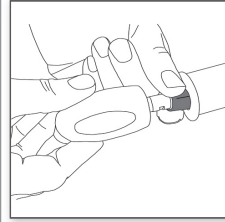
## 3. INSTALLATION

**ATTENTION!** Before installation, it must be determined that the motorbike is in a safe position, because if it falls it could cause injury or damage to the motorbike.

1. The BL 1000 LED/DARK can be mounted onto handlebars that are hollow and at an imagined perpendicular transversal plane have an angle of 9-25 to the rear. De-install the original indicator lights and the original handlebar covers or handlebar vibration dampers so that the hollow handlebar ends can receive the BL 1000 LED/DARK.
2. The cords of the BL 1000 LED/DARK run inside the handlebar and must be drawn through to an appropriate position. For this purpose, drill a hole if needed into the handlebar and assure a smooth passage of the cord without sharp edges.
3. Select the largest of the four mounting rubbers that will fit into the end of the handlebar and position the fitting rubber rings and nuts. Position the rubber ring at the point between the indicator light and the screw thread. For handlebars with small internal diameters, the BL 1000 LED/DARK is to be installed without a rubber ring.

4. First position the sliding disc (washer) and then the mounting rubber onto the indicator's screw thread and screw on the nut.

5. Hold the indicator tight with one hand and screw the nut with a suitable tool until the mounting rubber is only lightly clamped when it is inserted into the handlebar.



6. Draw the cord through the handlebar (it can be helpful to use a wire loop to pull it through). As far as possible, the cord should not be loose inside the handlebar once the BL 1000 LED/DARK is installed. Toward this end, turn the indicator a few times counter-clockwise before you insert it into the handlebar.

7. Note the position of the BL 1000 LED/DARK and screw it in a clockwise direction. The indicator should cast its light forwards and parallel to the ground. If it does not do so, loosen the indicator, pull it out and put it back in at an angle that will align it correctly once it is screwed in. Repeat this until the direction of the light is correctly aligned. Fine alignment is described under point 9.

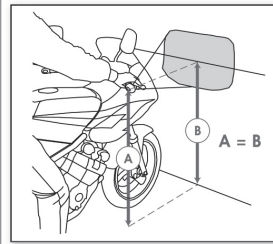
8. Electrical connection: Divide the feed cables between the original frontal indicator light and your connector in a suitable position. Connect the BL 1000 LED/DARK as follows:

- Connect the positive side of the left (right) indicator with the grey cord of the left (right) BL 1000 LED/DARK
- Connect the negative side of the left (right) indicator with the black cord of the left (right) indicator.

The BL 1000 LED/DARK includes cord connectors that are to be used as follows: Remove the isolation from the ends of the cords at a length of ca. 1 cm and position the cords that are to be connected in one of the provided end connector sleeves. Then press it tightly together with suitable pliers (see Fig. 1-3) This kind of cord connector is, in a technical sense, not removable. In order to connect the cord in a removable way, we recommend Posilock cord connectors. You can order these on the website [www.kellermann-online.com](http://www.kellermann-online.com), among other places.

Position the cords and fasten them in an appropriate manner, e.g. with cord connectors. Test the functionality of the BL 1000 LED/DARK on your vehicle.

9. The proper alignment is necessary for safety when driving in traffic and a required component for vehicle approval; a vehicle with incorrectly aligned lights is easily not noticed.



In order to align the indicators, position the motorbike at a right angle to a light-colored wall. Sit on the motorbike and measure the height of the middle of the indicator glass above the (flat) floor). Make a mark on the wall at this height. This mark on the wall must be exactly in the middle of the indicator's light field. If necessary, adjust the indicator as described in point 7. This completes the installation process.

If, after installation, the flashing frequency should increase to an unacceptable degree (some original flasher relays only function with original electrical fitting) or if, instead of two, all four indicator lights light at the same time, we recommend the following solution: Use a load-independent Kellermann relay (art. no. 123970). This solution is preferable because it is simple, safe and reliable and can be resolved in a short time. If you cannot use this relay with your vehicle, you can also install power resistors that can be connected parallel to the indicators. Attach the resistors in such a way that the heat can adequately discharged. The required ohmage for the resistors is variable according to the vehicle; for original indicator lights with 21 W, one resistor with e.g. 7.5 ohm and 50 Watt capacity per BL 1000 LED/DARK will be effective. If you contact us, we will be happy to help. To date, we have been able to help every customer.

**ATTENTION!** The application of the described measure may interrupt correct functionality, in the case of a failure causing one of the indicator lights to increase in flash frequency in order to alert the driver of such a failure. Before each usage of the vehicle, check the functionality of the indicator lights.

**ATTENTION!** The power resistors will become very hot after long-term usage of the indicator lights. Make sure that no components are damaged by this heat.

An approved Long Life Protection Guard circuit is integrated into the BL 1000 LED/DARK, as it is in the micro 1000 LED indicator light. In connection with the LED technology, this provides a very long product lifespan. It is not necessary to replace the illuminant and, due to the laws for device approval, it is not allowed.

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On our homepage, [www.kellermann-online.com](http://www.kellermann-online.com), you will find our online shop with our extensive assortment of replacement parts and accessories in the downloads field.

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