



## LASER COLLIMATOR

Tool for the adjustment  
of Newton and Schmidt-Newton telescopes

Art. No. 4910200



**GB** INSTRUCTION MANUAL

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**FIG. 1****FIG. 2****FIG. 3****FIG. 4**

## **INHALTSVERZEICHNIS**

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## IMPRINT

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## GENERAL SAFETY INSTRUCTIONS

- Keep the laser collimator out of the reach of children !

### DANGER OF INJURY!

Never look into the laser beam! Even a brief look into the laser beam can cause severe damage to the eye or even complete blindness.

### DANGER OF PROPERTY DAMAGE!

- Do not disassemble the laser collimator

and do not make any changes to it! Limit yourself to the specifications described in the "Maintenance & Care" chapter of this manual. The manufacturer accepts no liability for damage resulting from unauthorized tampering.

## SCOPE OF DELIVERY (FIG. 1)

Laser collimator (A)

## PARTS OVERVIEW (FIG. 2)

- ① 1 1/4" Connecting piece
- ② Reflective surface
- ③ Adjustment screws
- ④ Battery compartment cover
- ⑤ On/Off switch
- ⑥ Battery compartment

## **BEFORE YOU START**

The adjustment laser is used for quick and easy adjustment (collimation) of Newton and Schmidt-Newton telescopes.

**Note**

*The adjustment of Cassegrain optics and similar systems is not possible with this laser collimator!*

## **ASSEMBLY**

1. Remove the eyepiece or the dust cap if located in the focuser.
2. Insert the laser collimator with the 1/4" connecting piece (Fig. 2, 1) into the eyepiece holder of the telescope and fix it in place. (The on/off switch (Fig. 2, 5) points upwards)
3. Turn on the laser collimator by pushing the on/off switch (Fig. 2, 5). A red laser dot appears on the reflection surface (Fig. 2, 2). The laser collimator is now ready for use.

## **TELESCOPE ADJUSTMENT**

1. The laser beam of the laser collimator is directed through the secondary mirror onto the primary mirror. The secondary mirror must therefore be adjusted so that it directs the laser beam exactly to the center of the primary mirror.

**Note:**

*Be careful not to loosen all adjustment screws at the same time; this can loosen the secondary mirror. As a rule, only minor corrections (1/4 turn) need to be made.*

2. Adjust the adjustment screws of the main mirror in such a way that the laser beam is self-reflecting and can be seen on the reflection surface (Fig. 2, 2) of the laser collimator as a red laser dot (Fig. 3).
3. Carefully adjust the main mirror further until the laser beam is mirrored exactly onto itself in the center of the reflection surface (Fig. 4).
4. If present, carefully retighten the locking screws of the main mirror adjustment. The laser beam must remain in the center of the reflection surface.

## INSERT/CHANGE BATTERIES

**Note:**

*If the laser beam is weak, the batteries of the laser collimator must be changed.*

1. Remove the battery compartment cover (Fig. 2, 4) from the housing,
2. Remove weak batteries from the battery compartment (Fig. 2, 6).
3. Insert three LR 44 type batteries\* into the battery compartment.

**IMPORTANT!**

**Insert the batteries so that the positive pole (+) faces the battery compartment opening.**

4. Re-attach the cover cover (4) to the battery compartment.

## MAINTENANCE & CARE

### CLEANING

- Clean the device only on the outside with a dry cloth.

### CHECK THE LASER DIODE

However, before first use and after shocks, it is advisable to check the adjustment of the laser diode.

1. Assemble the laser collimator, but do not fix it in the eyepiece holder. The laser beam is now imaged on the primary mirror (it is irrelevant on which position; the adjustment of the telescope is not relevant for the verification of the laser diode).
2. Slowly rotate the laser collimator in the eyepiece holder around its own axis. A red dot must always be visible at the same position on the main mirror. The laser diode is set correctly.
3. If the red dot describes a circle during rotation, the laser diode must be adjusted via the adjustment screws (Fig. 2, 3) by use of an Allen wrench\* so that the red dot remains at the same position when the laser collimator is rotated. When this condition is reached, the laser diode is set correctly.

## WARRANTY

The regular warranty period is 2 years and begins on the day of purchase.

You can consult the full warranty terms as well as information on extending the guarantee period and details of our services at [www.bresser.de/warranty\\_terms](http://www.bresser.de/warranty_terms).

\*not included with the purchase

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