

LE.5210

cold light source



Contents

- 1.0 Introduction _____ 2
- 2.0 Construction of the cold light source LE.5210 _____ 2
- 3.0 Functions of the cold light source LE.5210 _____ 3
 - 3.1 Technical specifications _____ 3
- 4.0 Preparing the cold light source LE.5210 for use _____ 3
- 5.0 Using the light conductors _____ 4
- 6.0 Maintenance and cleaning _____ 4
 - 6.1 Exchanging the halogen bulb _____ 4
 - 6.2 Replacing the fuse _____ 4

1.0 Introduction

With the purchase of the cold light source LE.5210 you have chosen for a quality product. The LE.5210 cold light source is developed for use in education, laboratories and industry. It is extremely useful for photo-micrography. The maintenance requirement is limited when using the LE.5210 in a decent manner.

This manual describes the construction of the cold light source, how to use the cold light source and maintenance of the cold light source

2.0 Construction of the cold light source LE.5210



The names of the below parts are indicated in the picture:

- A. Twin-arm light conductor with focusing heads (optional)
- B. On/Off switch with light intensity regulator
- C. Mains cable connector (on the back)
- D. Built-in fuse holder (on the back)
- E. Set-screw to lock light conductor
- F. Connector for light conductor

3.0 Functions of the cold light source LE.5210

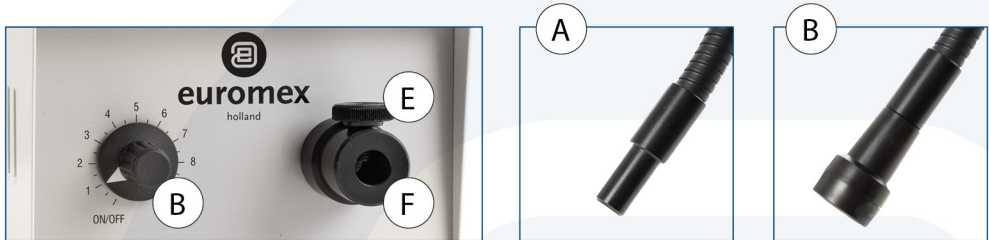
The cold light source LE.5210 can be used for any application where heat on the object to be illuminated should be eliminated. To move the instrument, pick it up by using the grip (A)

3.1 Technical specifications

Primary voltage	230 Volt
Secondary voltage	12 Volt
Bulb	12 Volt 100 Watt with reflector
Fitting	GZ6.35
Fuse	250 Volt, 1 A slow, 20x5 mm

4.0 Preparing the cold light source LE.5210 for use

- Insert a light conductor into the connector (F) in such a way that the flat side of the conductor points to the left, in the direction of the power switch (B). The light conductor should always be fully inserted. Now tighten the set screw (E) to secure the light conductors position. The LE.5210 is now ready to be used



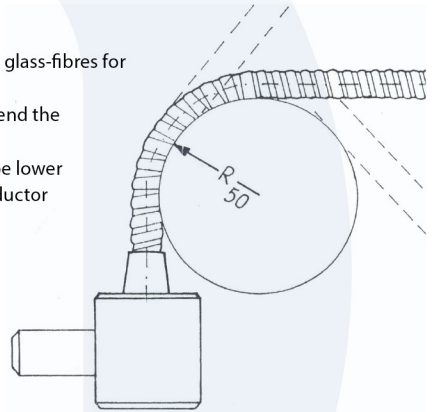
On image B a focusing head for light conductor is used (LE.5222). The focusing head can be combined with either an aspherical focusing lens (LE.5224) or an iris diaphragm (LE.5228)

- Connect the power cable to the mains supply and switch on the LE.5210 by turning the knob (B) clockwise. The lamp will light up and the fan starts running.
- By turning the light adjustment knob (B) with scale from 1 - 10 clockwise, one can increase the light intensity, this results in an increase of the color temperature of the emitted light (maximum 3200° K). Please note that use in position 9 is recommended rather than position 10, for in that case the life span of the bulb is much longer
- When using the LE.5210 for photomicrography position 10 is recommended, for in position 10 the color temperature is 3200° K. For a good balance in color, one should use a daylight film together with conversion filters LE.5231, mounted in focusing heads LE.5222 and aspherical condensor lenses LE.5224
- After use turn the potentiometer knob to position ON/OFF. When the LE.5210 is to be transported immediately, leave it at position 1 for a minute. The bulb will cool off

5.0 Using the light conductors

The self-sustaining and flexible light conductors are equipped with glass-fibres for maximum conductivity of light, and should be treated as follows:

- Carefully point the conductor towards the object and only bend the conductor in one direction
- The bending radius "R" of the light conductor should never be lower as 50 mm, otherwise the metal construction of the light conductor can be damaged. This can cause instability and inflexibility



6.0 Maintenance and cleaning

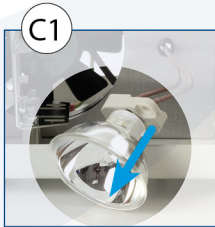
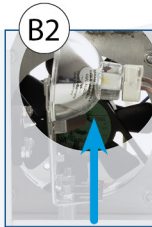
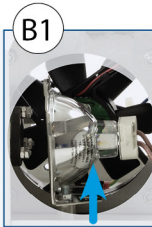
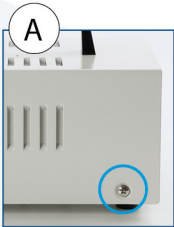
After use the instrument should be allowed to cool down. The instrument can be easily cleaned with a soft cloth

6.1 Exchanging the halogen bulb



Warning: Always pull the plug from the mains socket first and let the instrument cool down for a few minutes

- Remove the four Phillips screws (image A) on both sides of the LE.5210 and take off the cover
- Take the reflector and fitting out of the holder vertically (B1 and B2)
- Remove the bulb out of the fitting (C1 and C2) and replace it with a fresh one
- Put the reflector back into the holder and replace the cover



6.2 Replacing the fuse

To change the fuse, please follow these procedures below:

- Remove the power cord from the back of the LE.5210
- Find the fuse compartment, which has a fuse image. It is located next to the power connector
- Remove the fuse compartment. To do so, insert a flat head screw driver in between the metal power tines and gently pry the fuse compartment loose
- Insert the new fuse into the compartment, and then replace the fuse compartment cover
- Power up the LE.5210 and test

