LASER system for pointing and positioning

ENGLISH

Installation Manual

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1. Product Description

Laser pointing system for the material alignment and positioning in the industrial production field.

point

line

cross

Application:

- Positioning and sewing of fabriccs
- Positioning and alignment of stone, wood, paper
- Positioning and alignment for crop systems
- Positioning and alignment of the industrial assembly sector

Sector of use:

- Textile / leather goods
- Wood and paper
- Stone processing
- Food
- Metal
- Ceramics and glass
- Automotive

Power supply unit (to be ordered separately)

Cod. ALASER2230

Cod. ALASER224

2. Safety instructions

All LR.14 Laser pointer system series are been designed and manufactured on the basis of state-of-the-art techniques.
It is made of well-selected, high-quality materials. It is carefully tested throughout the production process, from the raw material through to packaging, following a detailed production schedule so as to guarantee that the product is safe and reliable.
Material damages, as well as bodily injuries, may nevertheless still occur while using it.

- This manual is part of the equipment and must always be kept with it.
- Please make sure that ALL instructions/information in this manual are carefully read through
- Strict compliance with the instructions provided in this manual and on the lighting, equipment is required for its correct use
- Installation and use of the product is recommended only provided it is in perfect conditions, and the user is well-acquainted with all safety instructions
- CCEA, the manufacturer, waives any responsibility in case of product tampering or improper use

2.1 Proper use of product

The Laser Pointing systems are suitable for the alignment and positioning of materials in the industrial production field.

2.2 Product Safety

Electrical Risks

The improper and incorrect use of the equipment may cause body injuries and material damages.

- All electrical connection procedures must be carried out by a licensed electrician
- Switch off power supply before any installation, maintenance or reparation procedures.
- Please ensure that the power supply rated tension and frequency meets the requirements shown on the product label. Please respect cable polarity.
- Maintenance and reparations must only be carried out by qualified electricians.

Risk of explosion

The risk of the explosion might occur upon installing and using this product for applications with a

high risk of explosion. It might cause severe body injuries.

- **Do not** install and use this product in hazardous environments (high risk of explosion).

Installation and safety

- Handle the lamp with care and avoid having it drop or being hit even it is still packed, which might cause body injuries, as well as material damages.
- Ensure the original fixing accessories are used, as available from the manufacturer.
- Set up the fixing accessories properly.
- The equipment must be correctly fastened using the proper screws according to the application, place and surface where the product is being mounted.
- Ensure that the fastenings are regularly checked.

Laser classification

Our laser pointers belong to **classe II with** power ≤1mW. These pointers are safe for the naked eye. For laser which work at a wavelength between 400 and 700 nm, the protection is provided by standard human body's defense, like eyelid reflex.

Danger caused by inappropriate spare parts.

Using inappropriate spare parts may cause bodily injuries and material damages.

- **Do not** use spare parts that have not been approved by the manufacturer.

Danger due to high temperatures

Installing and using the equipment in all the environments where the existing temperature remarkably exceeds the foreseen operating temperature will considerably reduce Led lifetime while damaging as well the built-in electronic components.

- **Do not** use this Device in environments where the operating temperature of the device is exceeded.
- Operating temperature max +30 °C
- Avoid direct solar radiation.

Danger due to repairs

Having the product disassembled or repaired without any appropriate technical /electrical knowledge may cause damages to persons and objects.

- **Do not** try to repair or disassemble the equipment. Please apply to qualified technicians for any issues.
- Any product tampering or modifications not having been approved by the manufacturer will null and void the warranty.

2.3 Security requirements

For the use of class II laser pointing systems, including LR.14 pointers, the necessary safety measures must be taken to avoid parking in the direction of the beam or the beam reflected from a surface.

- The laser must never be aimed at a person's eyes;
- A warning sign with the wording "ATTENTION - DO NOT STAY NEAR THE LASER BEAM" must be positioned in an obvious point on the laser;
- all observation inputs and observation screens included as parts of the laser, as well as the connected optics (lenses, microscopes, etc.) used as observation points, must incorporate connections, filters, attenuators or other devices designed to maintain radiation at safety levels during all situations of use and maintenance.

2.3 Damage risk levels

DANGER

Dangers where noncompliance may **immediately** severe injuries and eventually lead to death.

WARNING

Dangers where failure to satisfy requirements **may** lead to severe injuries or even to death.

ATTENTION

Dangers where failure to satisfy requirements **may** lead to injuries.

NOTICE

Dangers where failure to satisfy requirements **may** cause damages to objects.

3. Available versions

Please refer to the table hereunder listing all the lighting equipment, for you to identify the model you need and its main features, for you to have the lighting equipment correctly and efficiently installed and used.

Note: The product code is found on the brand name label stuck on the product's backside.

- Find out the product code printed on the brand name label and see if you find it on the table hereunder;
- Compare the codes and see if you can identify the same model on the table hereunder;
- The code printed on the brand name label shows the device's week and year of production.

Cod. **LR.14.PD**– Point Laser System 1mw cl.2 red

Cod. **LR.14.LD**– Line Laser System 1mw cl.2 red

Cod. **LR.14.CD** – Cross Laser System 1mw cl.2 red

Tab.1 – Focus distances and line sizes for cod. LR.14.LD

h.100 mm	h.200 mm	h.300 mm
~ 220 mm	~ 370 mm	~ 520 mm

- h: installation height (focused diode @h.200mm)

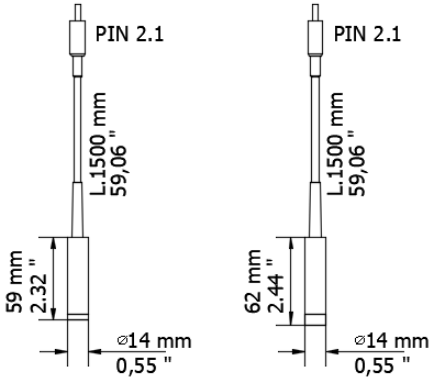
Tab.2 - Focus distances and cross sizes for cod. LR.14.CD

h.100 mm	h.200 mm	h.300 mm
~ 17x17 mm	~ 32x32 mm	~ 52x52 mm

- h: installation height (focused diode @h.200mm)

4. Guide to installation

4.1 Product sizes



LR.14.PD
LR.14.CD

LR.14.LD

Fig.1

4.1 Fastening accessories ART.36

To be ordered separately

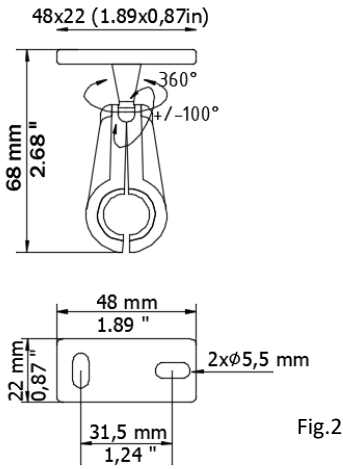


Fig.2

4.3 Installation

ATTENTION

The lamp fall-down may cause damage to persons and objects

- When mounting the laser ensure that the original fastenings are used, which you may purchase from the supplier.
- Have the fastening accessories correctly mounted.

WARNING

Switch off the power supply before proceeding to installation.

Installation with Art.36

ART.36 fixing kit consists of:
- N.1 articulated arm in ABS with internal adapter diameter 14mm for the correct positioning of the pointer.

Fixing

- Define the positions of the fixing holes on the installation surface
- Fix the articulated arm to the installation surface.
- Loosen the central screw of the arm joint to allow the

pointer to pass inside the dedicated hole.

- Adjust the position of the pointer
- Then tighten the screw until the system locks.
- Then proceed with the electrical connection.
- For the installation height, check the focusing distances on page 7.
- The fixing screws must be chosen by the installer based on the characteristics of the place and the surface

NOTICE

Damaged or broken lamp.

- When mounting the lamp ensure to never completely loosen the screws in order to avoid the lamp fall- down.

NOTE: The fastening parts for this lamp are available as accessories. Please For further details, visit our website:
www.ccealights.com

Fig.3

5. Plug-in

NOTICE

Wrong wiring may cause damages to the lamp

- All electrical connections have to be carried out by qualified electricians.
- Always use the power cord supplied with the laser.
- Always use the power supply supplies with the kit.

For the power laser system use the dedicated drivers ALASER2230 (Vin 230VAC) or ALASER224 (Vin 24VAC).

5.1 Plug-in with ALASER2230 230V 50/60Hz

- Fix the driver on the installation surface.
- Connect the laser pointer by plugging the jack into the socket
- Connect the driver to the 230V 50 / 60Hz mains voltage.
- Then turn on the driver to turn on the pointer.
- It is possible to connect up to two pointers with the same power supply.

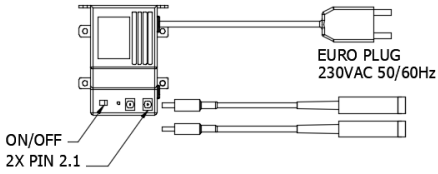


Fig.4

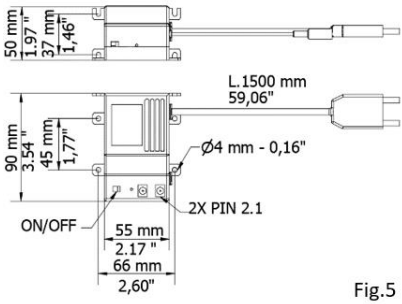


Fig.5

WARNING

All electrical connections have to be carried out by qualified electricians.

5.2 Plug-in with ALASER224 24VAC

- Fix the driver on the installation surface
- Connect the laser pointer to the driver respecting the polarity
- Connect the driver to the 24VAC power supply
- It is possible to connect up to two pointers with the same power supply
- The driver is not equipped with a switch.

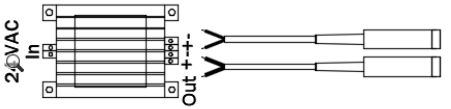
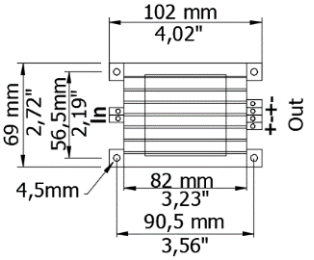


Fig.6

Red: Positive +
Black: Negative –
Respecting polatities



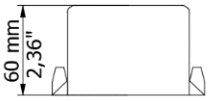


Fig.7

6. Troubleshooting

Please contact CCEA'S USA Technical support service in case the laser is defective

CCEA Technical Support Service
Phone: +39 0444 572083
ccea@ccealights.com
www.ccealights.com

7. Product maintenance and cleaning

WARNING

Switch off the power supply before any installation, maintenance, or reparation procedures.

This product is maintenance-free.

- Laser system cleaning is to be carried out only after it has been switched off and surfaces have cooled.
- Carefully rinse the lamp surface with a mild cleanser and then wipe off using a soft cloth in order to avoid scoring.

8. Repairs

NOTICE

All material damages caused by poorly executed repairs may damage the lamp

- All repairs must be carried out by the manufacturer or by qualified technicians.
- Only use spare parts having been approved by the manufacturer.

9. Warranty

Terms of warranty

CCEA ensures that any control procedures or repairs – to be carried out exclusively at/by CCEA Technical service dept. or by any CCEA'S official dealer – are covered throughout the entire product's lifetime. In view of the above, take care to preserve the product label and case, to be submitted if any repair operations are needed.
All repair and spare parts costs will be notified after the defects have been examining.
The warranty does not cover:

- Any transport, packaging, or shipping costs;
- Any damages or deterioration caused by:
  -Installation and/or operation carried out following different ways;

- Any unauthorized repairs or attempts to repair the product;
- Equipment operation under environmental conditions other than those specified in the user manual;
- Liquid leakages inside the lamp;
- Failure to follow the safety precautions related to transport and to shipping the product back for repair (please make sure to have it shipped back in its original case).

Period of warranty

The warranty period covers 24 months, starting from delivery date. CCEA guarantees that the products have no manufacturing defects or malfunctioning.

10. Product disposal

All the electrical and electronic equipment (WEEE) have to be managed with a selective waste sorting and cannot be disposed of as municipal waste, as provided for in Directive 2012/19/UE.

In view of the above this equipment, all its components, subsystems and the consumables which are an integral part of the product have to be conveyed to the local collection facilities for them to be disposed of in accordance with the current legislation.

Please apply to the council offices of your place of residence in order to know where the collection facilities are located.

11. Technical data

NOTE: Please refer to the data printed on the label stuck on the laser.

Laser	1mW
Classe	2 (EU)
Voltage	3-5 Vdc
Current	40mA
Wavelength	645-665nm
Lens collimation	aspherical
Divergence	1,2 mrad
Beam color	red
Lase lifetime	4000h
Degre of protection	IP40
Connection	PIN 2.1
Operating temperature	-5 ÷ +30°C
Storage temperature	-20 ÷ +65°C

12. Symbol keys

CE	CE Conformity marking
III	Protection class III device
	Laser device
IP40	Degree of protection IP40

13. Declaration of Conformity

C.C.E.A. SRL, via Piave, 2 - 36077 Altavilla Vicentina (VI), Italy – VAT and Tax number 02374040240 hereby declares that the Laser pointer system named LR.14.PD / LR.14.LD / LR.14.CD – to which the present Declaration of Conformity is related - was manufactured by CCEA SRL in accordance with the following Directives:

- CEI EN 60825-1 “Lighting equipment. Part 1: General instructions and tests”
- CEI EN 61000. Parti 3-2 3-3 EMC compatibility
- CEI EN 55015 (110-2) Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment

This is a standard product manufactured following a detailed production schedule ensuring that inspections and destructive tests were carried out, for a safe, functional and sustainable product to be delivered.

C.C.E.A. SRL disclaims any responsibility resulting from tampering and/or wrong use of the device.

Date:_____

Week of production: _____

Product code: _____

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