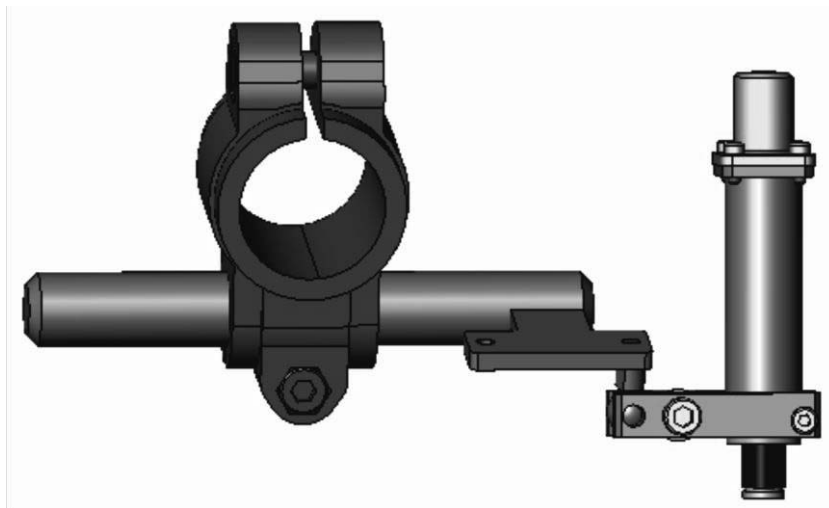


# LASERSPOT

SAFETY INSTRUCTIONS FOR USE AND MAINTENANCE

DEVICE No W000384404 - W000384405



EDITION : EN  
REVISION : C  
DATE : 04-2018

Instructions for use

REF: **8695 5891**

*Original instructions*

**LINCOLN**<sup>®</sup>  
**ELECTRIC**

**Thank for the trust you have expressed by purchasing this equipment, which will give you full satisfaction if you follow its instructions for use and maintenance.**

**Its design, component specifications and workmanship comply with applicable European directives.**

**Please refer to the enclosed CE declaration to identify the directives applicable to it.**

**The manufacturer will not be held responsible where items not recommended by themselves are associated with this product.**

**For your safety,there follows a non-restrictive list of recommendations or requirements, many of which appear in the employment code.**

**Finally we would ask you kindly to inform your supplier of any error which you may find in this instruction manual.**

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# REVISIONS

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# A - SAFETY INSTRUCTIONS

For general safety instructions, please refer to the specific manual supplied with the equipment.

## 1 - SPECIAL INSTRUCTIONS FOR LASER EQUIPMENT



The laser used is a class 3R laser.

The eyes are normally protected from visible laser rays by their reflexes, particularly the palpebral reflex. However, users are advised not to hold the eye in the beam intentionally. Beam penetration into the eye through an optical device (e.g. binoculars) is hazardous. (Excerpt from European standard EN 60825-1 of January 2008)

### Laser specifications:

Specifications	
Wavelength	655nm at 25°C/668 at 85°C
Output power	4.5mW (power adjustable with potentiometer)
Laser class	3R
Type of beam	Dot (adjustable focus)
Type of optics	Glass lens
Power voltage	4.5VDC - 30 VDC
Usage temperature	-10°C/+85°C
Manufacturer	Laser Components

### LASER MAINTENANCE:

While working on the laser, the laser must absolutely be switched off in order to avoid exposing the eye directly to the beam.

If the maintenance operation must be carried out with the laser on, all the persons involved in the operation must wear special protective goggles with optical density (OD) 1 for 3R class continuous wave lasers with (red) 60nm wavelength.

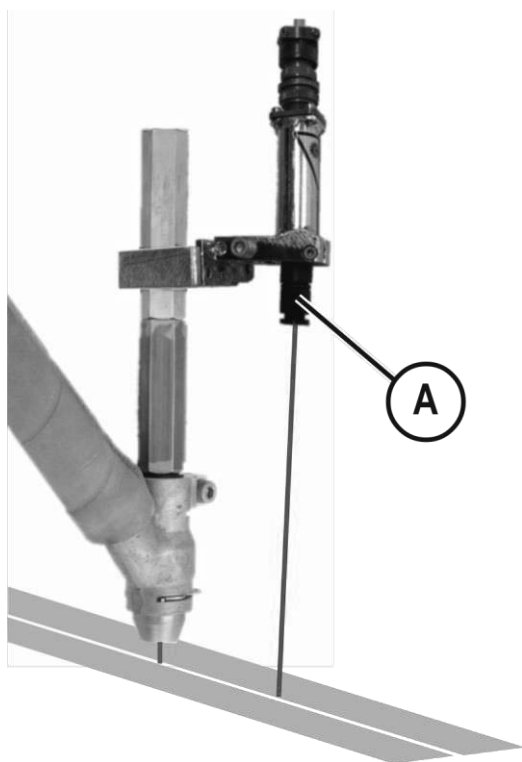
**NB:** maintenance work may not be carried out on the optics

### LASER USE:

While adjusting the laser, always make sure that you do not direct the beam towards your eyes or the eyes of persons near the machine. Always keep the dot visible on the plate, preferably turned downwards.

**NB:** any use other than the specific cases of use described in this document is not permitted.

## B - PRINCIPLE



The function of the laser spot guiding system is to mark out the location of the wire point of impact in relation to the joint to be welded, as the joint is hidden by the flux during Submerged Arc welding.

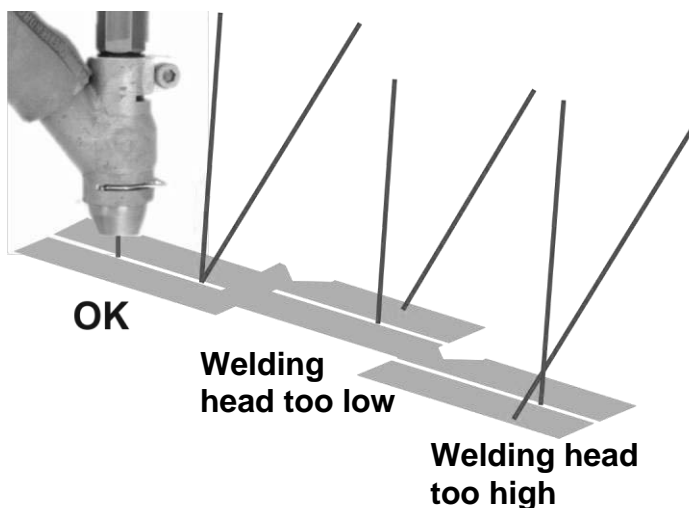
The spot projects an illuminated point in front of the electrode wire for guiding.

The support is designed to be fitted on the wire feeds of the automatic welding heads. The spot is fixed on a ball that makes it possible to direct the assembly quickly and easily.

Ring A makes it possible to adjust the sharpness of the spot.

The combination of two spots and the use of the supplied fasteners also make it possible to monitor the distance between the nozzle and the workpiece.

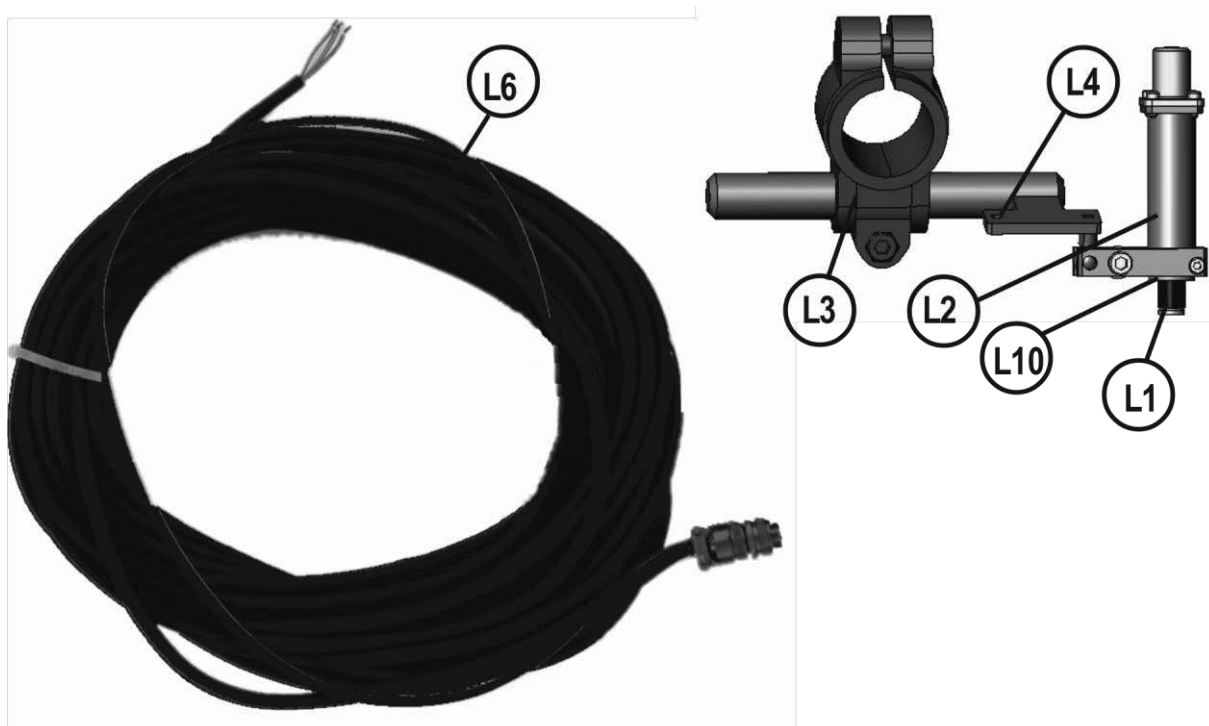
Constant height can be maintained by adding an electrical slide fitted on the welding head (Do not hesitate to contact us).



## 1 - COMPOSITION OF SUPPLY, VERSION W000384404

The supply includes:

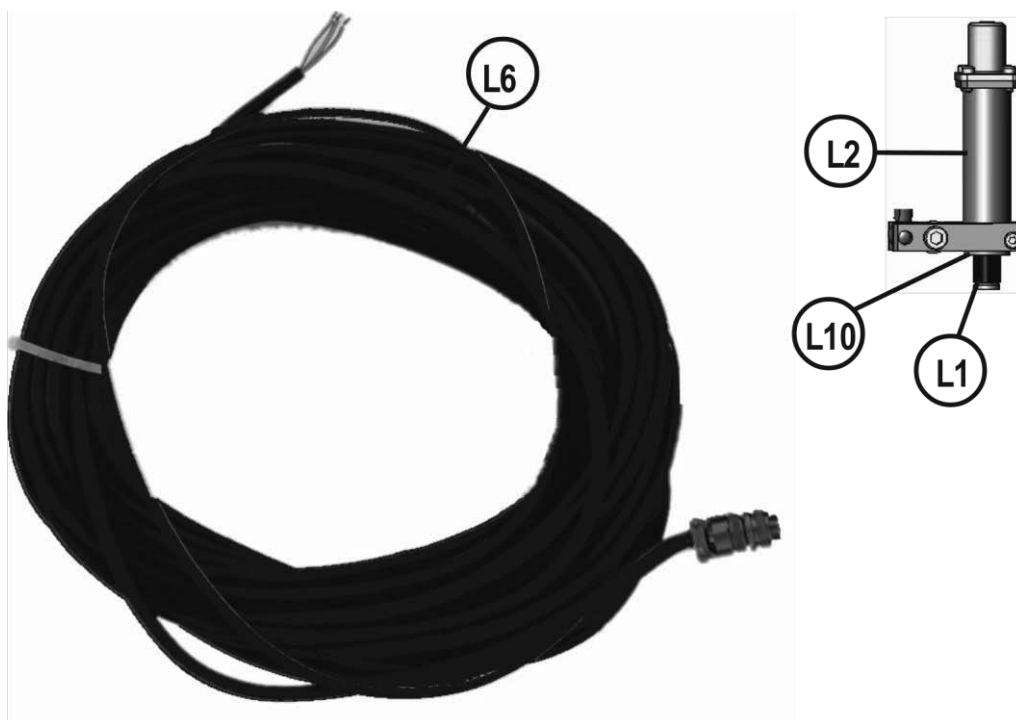
- Laser L1 and support L2
- Fastening clamp L3 for tubular head
- Support L4 for mounting a second laser
- A power cord L6, length 30m
- An insulating ring in Bakelite, L10
- Operating and maintenance instructions ref. 8695 5891



## 2 - COMPOSITION OF SUPPLY, VERSION W000384405

The supply includes:

- Laser L1 and support L2
- A power cord L6, length 30m
- An insulating ring in Bakelite, L10
- Operating and maintenance instructions ref. 8695 5891





# C - USE

## 1 - ASSEMBLY

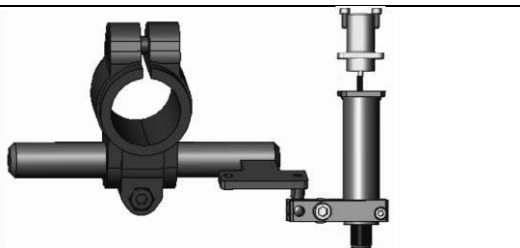
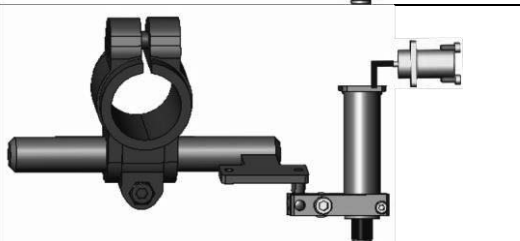
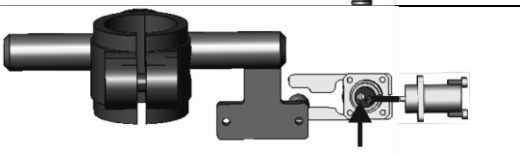
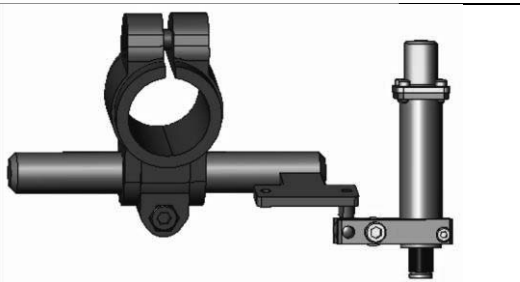
**PRECAUTION:** The laser power cord (L8) must be kept away from welding power cables.

Fasten the laser with its clamp L3 to the tube set aside for accessories (refer to instructions 8695 5260)


Connect the cable to the laser at L8

Connect the power cable to the power cabinet or an auxiliary voltage supply ranging between 4.5 VDC - 30 VDC/0.5A (**White: +, Blue: -**).

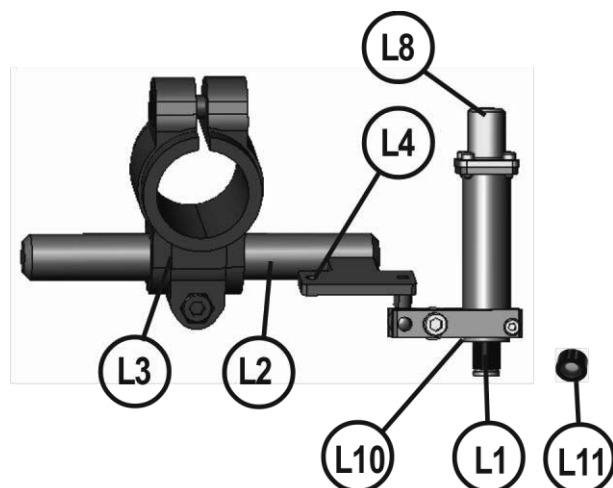
**Laser power adjustment:**

<p>Take off the four screws fastening connector L8</p>	
<p>Clear away the connector and the laser power wires to make it easier to access the adjustment potentiometer</p>	
<p>With a small screwdriver, turn the potentiometer placed behind the laser (right next to the power cord) to increase or decrease the power.</p>	
<p>When the power is adjusted, put back the connector, making sure that no laser power wire is caught.</p>	

## 2 - ASSEMBLING THE OPTIONAL ADDITIONAL LENS FOR CROSS LINE LASER FUNCTION (W000383130)

<p>The option is made up of a diffracting optical element that is positioned on the laser. The focal length adjustment may be made with the lens. To change the dot into a cross line, you only remove the optical element.</p>	
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### 3 - SPARES



✓	normally in stock
✗	not in stock
	on request

Item	Ref.	Stock	Order	Designation
L1	W000383128	✓		LASER
L10	W000383129	✓		Insulating ring for laser
L11	W000383130	✓		Additional lens for cross line laser function

➤ For parts order, give the quantity required and put the number of your machine in the box below.

CE Type <input type="text"/> Matricule <input type="text"/>	TYPE :
	Number :



