

# Appendix - K00I Laser Assembly

## Description

Forks that are equipped with a guide laser. The guide laser enables the user to determine the correct insertion height with greater precision.

## Safety:



**Warning:**

Do not use the K00I-REACHFORKS® with laser in spaces with temperatures below 0°C (-22°F), or higher than 50°C (122°F).



**Caution:**

Avoid direct eye contact with the laser beam.

## Standards and Directives

Additive standards that apply:

NEN-EN-ISO 11252: Equipment classification, requirements and user's guide;

## Laser Technical Specifications

Modeltype (RED LASER): ..... FP-L-660-9-100-C-HS19

Modeltype (GREEN LASER): ..... FP-L-520-9-100-C-HS19

Laser type: ..... Line laser

Laser class: ..... 1

Voltage [U]: ..... 4.5 – 30 V

Nominal power [P<sub>0</sub>]: ..... 9 mW

Wavelength [λ]: ..... 660 nm (RED)

..... 520 nm (GREEN)

Laser beam angle ..... 100°

## Intended Use

The laser is intended to be used in combination with K00I ®Reachforks and is used for height indication when moving the K00I ®Reachforks towards a pallet (see also instructions for further details).

Usage of the laser outside of its intended use is prohibited without written permission by the supplier of the K00I ®Reachforks.

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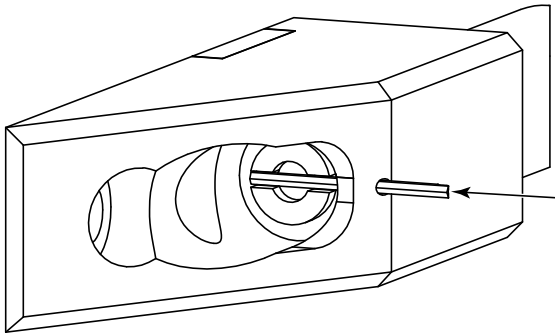
Language: ENG

Revision: 02

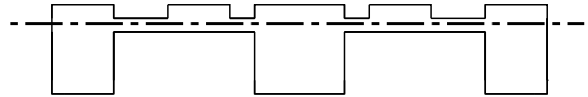
# Calibration and Cleaning Instructions

## Calibrating the Laser

Use a flat head screwdriver (blade width 10 mm) to rotate the laser. Then, use an Allen key (width 1.5 mm) to check the calibration. See also the figure below.



Test the calibration by carrying out step 1 and step 2 of the chapter 'Use' and project the laser beam onto a straight section of a pallet. See the image below as an example.



## Checking for Dirt and Cleaning the Laser

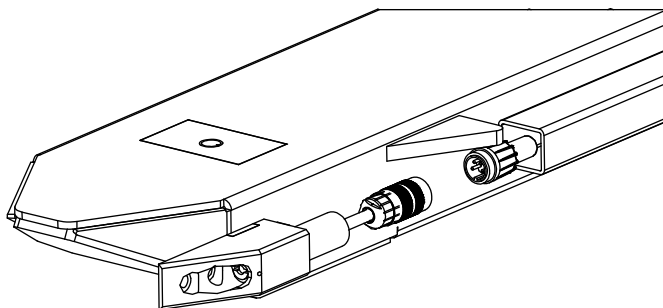
In case of dirt on the lens of the laser, the dirt can be removed with dry air. Other (liquid) agents can damage the lens. If this is not sufficient, you can contact the supplier.

## Assembly Instructions - Laser Assembly

### 1 Assembling the Laser

Mount parts 1 through 5 as illustrated in the parts list.

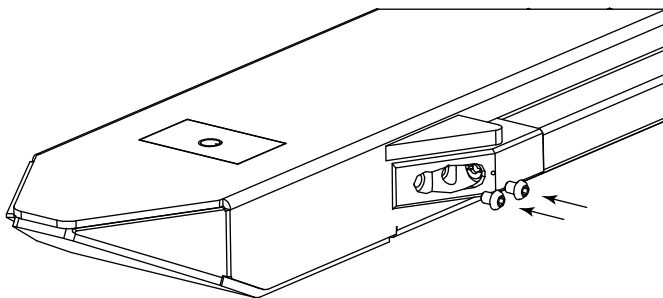
### 2 Mounting the Laser



1. Pull the male connector of the power cable through the sleeve on the side of the outer fork.

2. Connect the line laser to the cable.

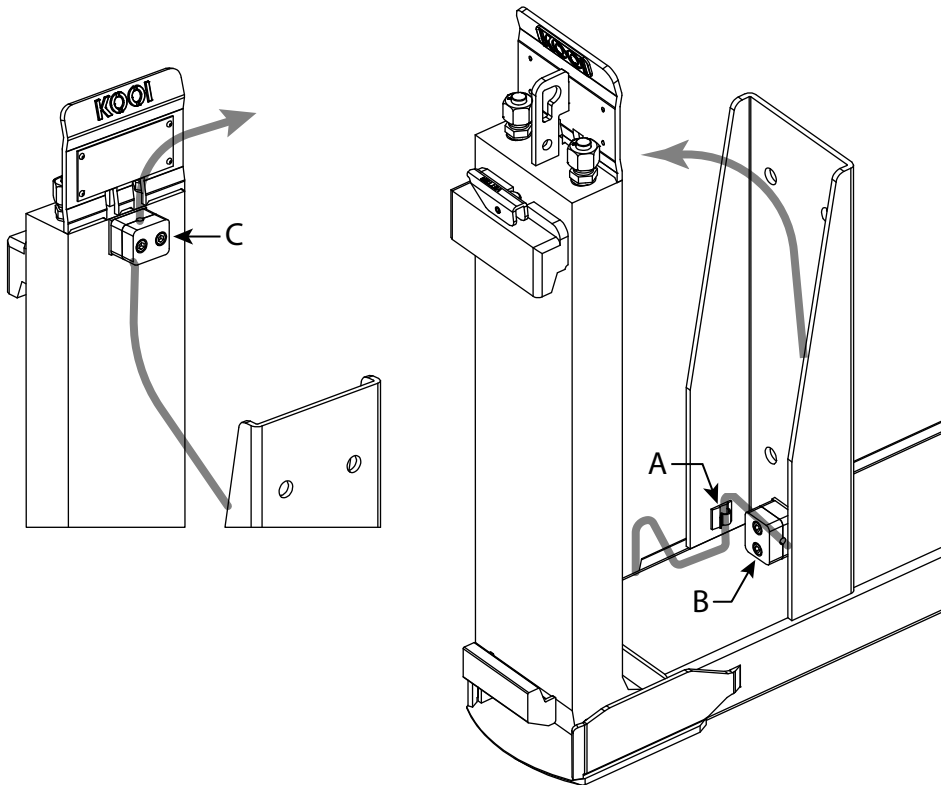
### 3 Mounting the Laser



Place the target laser with housing and cable against the tube and screw securely onto the tube.

## 4 Cable Connection

Guide the cable through points A, B and C as shown below. Next, connect the cable to the forklift truck.



# Use

## 1 Positioning the Forklift Truck



Position the forklift truck in front of the pallet as shown above.



**Caution:**

To minimise inconvenience, only switch on the laser beam when the forklift truck is in front of the pallet.

## 2 Positioning the Forks



Switch on the laser and move the forks towards the pallet. Use the line laser to determine the proper height of the forks.



**Caution:**

Be aware of the proximity of persons in the vicinity of the laser before using it.

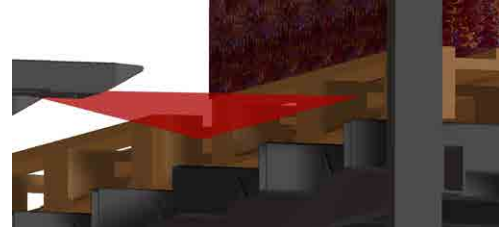
**Caution:**

Take into account the presence of a window, and thus the presence of persons behind the window.



**Caution:**

The laser is located on the centre line of the outer fork. Use the centre of the pallet-insert as an aiming point.



**Caution:**

Take into account possible reflections of the laser beam when used on reflective materials (glass, aluminium, mirrors, etc.).



**Caution:**

Do not use the laser beam as a reference for the width position of the forks relative to the pallet inserts.

## 3 Placing the Forks



Use the forklift truck, with or without reach function, to place the forks in the pallet inserts.





**Caution:**

To minimise inconvenience, switch off the laser beam as soon as the forks are in the pallet.

## 4 Further Handling of Pallets

The further handling of the pallets is as with regular use without a laser.

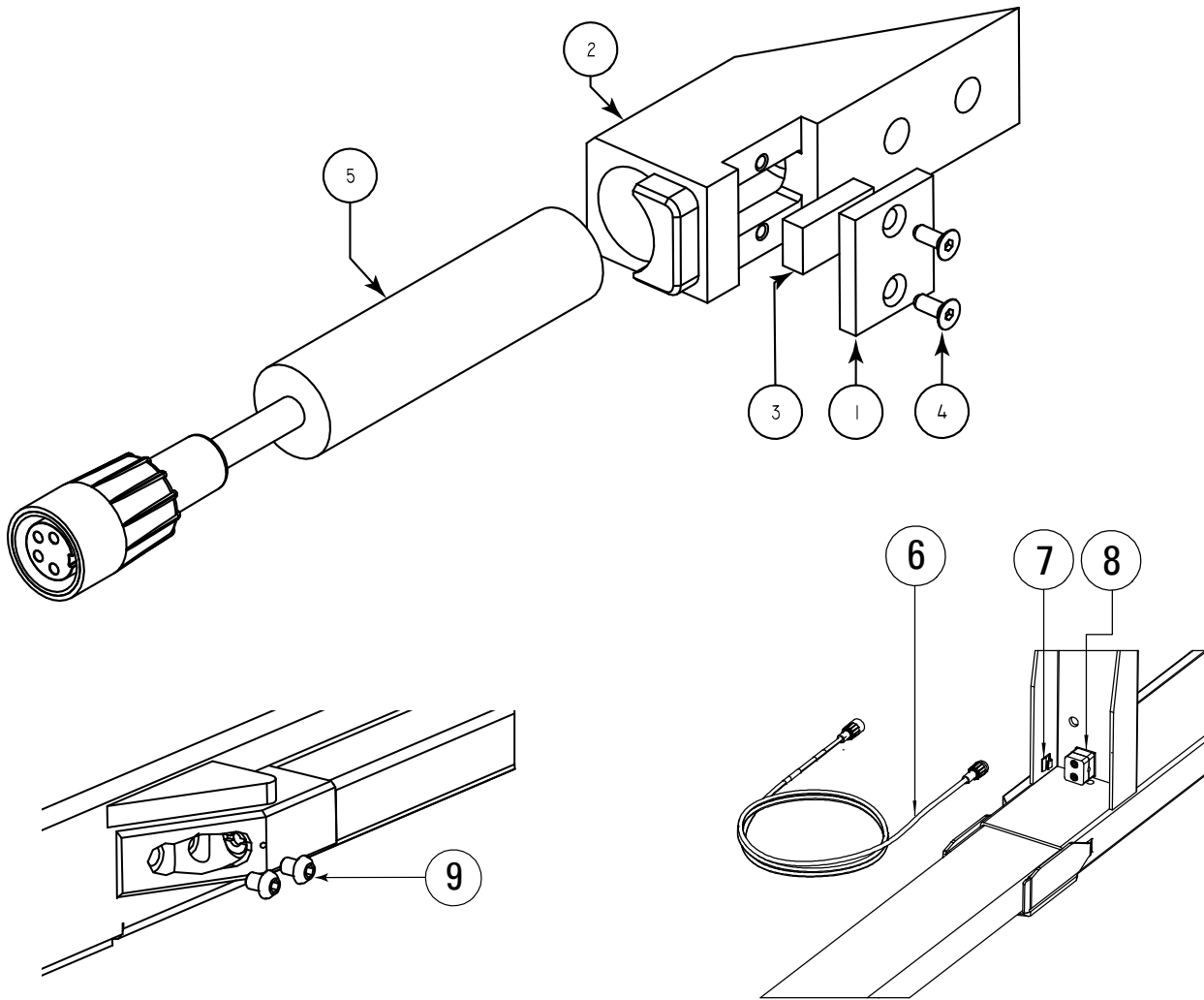
## Maintenance Schedule

| N° | Description  | Weekly  | Monthly | 6 months or every 1000 hours | Annually or every 2000 hours |
|----|--|---|---------|------------------------------|------------------------------|
| 1. | Checking the calibration and calibrating the laser if required.  |  |         |                              |                              |
| 2. | Checking for dirt on the laser lens and removing it if required. |  |         |                              |                              |

### Notes on 'Maintenance Schedule'

1. See 'Calibrating the Laser' for calibration instructions.
2. See 'Checking for Dirt and Cleaning the Laser' for instructions on cleaning the laser lens.

## Line Laser Parts List



| Pos. N° | Description                            | Article N°     | Quantity: |
|---------|--|----------------|-----------|
| 1       | Clamping plate                         | 10101301       | 1         |
| 2       | Laser housing                          | 10101302       | 1         |
| 3       | Rubber clamp pad                       | 10101303       | 1         |
| 4       | Hexagon socket screw M3x8 DIN 7991     | 07470 M3x8     | 2         |
| 5       | Laser                                  | - <sup>1</sup> | 1         |
| 6       | Cable                                  | - <sup>1</sup> | 1         |
| 7       | Cable clip                             | CABLE CLIP     | 1         |
| 8       | Cable clamp                            | SP106A PP IS   | 2         |
| 9       | Hexagon socket button head screws M6x8 | 07151 M6x8     | 2         |

<sup>1</sup> Article N° depending on specific model. Please provide serial number when ordering.