

# Installation Manual

## **i.NEX V4**



The electronic universal solution  
for motorcycle lights!

**Motorcycle Products**

  
**Made in Germany**®

PA and  
P&A International  
Peitzmeier Co.

## 1. FOREWORD

Dear customer, dear customer,

Thank you for the trust you have placed in us by purchasing this product. Please read these instructions for use carefully and completely before deciding whether you wish to carry out the installation yourself or commission a specialist to do so.

If you have any questions or suggestions, we look forward to hearing from you. We wish you a safe and pleasant ride at all times.

Team Kellermann

## 2. WARNINGS

**ATTENTION!** Correct installation and correct electrical connection of the **i.NEX** are prerequisites for the warranty. Therefore, only carry out this work yourself if you are appropriately trained. Otherwise, contact a specialised workshop and leave the installation and connection of the **i.NEX** to them. Damage caused by incorrect connection or overvoltage (e.g. due to a defective alternator regulator) is not covered by the warranty.

**ATTENTION!** Incorrect adjustment of the **i.NEX** can invalidate the vehicle's operating licence and insurance cover and lead to accidents. Therefore, check that the lights are fully functional before every journey. According to § 54 StVZO, the indicators on each side must flash in phase at a frequency of  $1.5 \text{ Hz} \pm 0.5 \text{ Hz}$  (90 flashes per minute  $\pm 30$ ).

**ATTENTION!** The **i.NEX** can heat up during operation. Contact with bare skin or heat-sensitive objects can lead to adverse effects.

**ATTENTION!** Ensure that the motorbike is stable before mounting it, as a motorbike that falls over can cause injury and damage to the motorbike.

**ATTENTION!** Disconnect the vehicle battery completely before working on the electrical system. First disconnect the negative pole, then the positive pole. Reconnect in reverse order.

### 3. INSTALLATION i.NEX System

The **i.NEX** installation system offers a simple installation option for aftermarket lighting products on the motorbike.

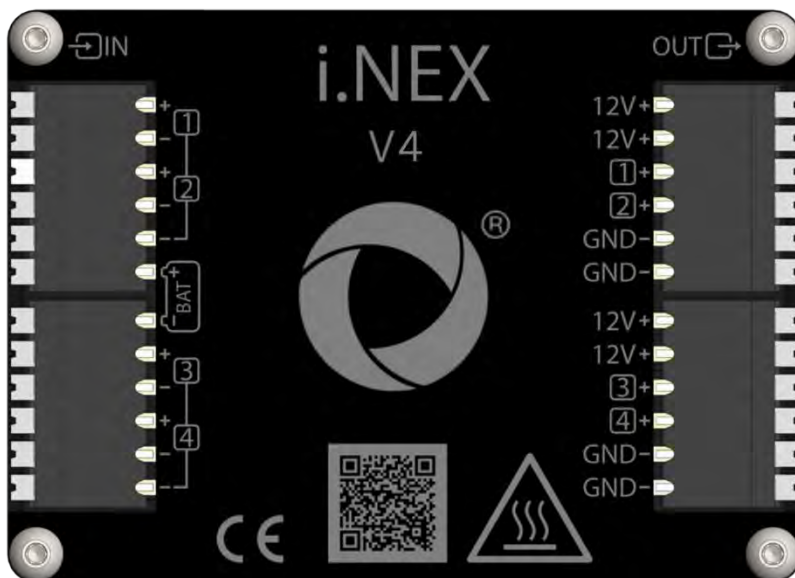
#### 3.1 SCOPE OF DELIVERY

- i.NEX
- i.NEX battery cable
- Heat-resistant adhesive strip

#### 3.2 REQUIRED TOOLS

- Side cutter
- Wire stripper
- Hot air gun

#### 3.3 OVERVIEW



The **i.NEX** has 4 blocks with a total of 24 clip connections:

#### Inputs:

On the motorcycle side, four independent light functions can be connected to the input side of the **i.NEX**. The light functions include: Indicator, brake light, rear light, position light and licence plate light.

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### 3.3 Overview

Each light function is represented by a circuit consisting of a positive and a negative line. Light functions 1 and 2 as well as 3 and 4 each have an additional joint negative line.

Finally, the positive and negative cables of a 12V battery are connected on the input side.

#### Outputs:

On the output side, there are four ignition-switched 12V battery connections (12V+) and four battery ground connections (GND).

There are also four outputs 1, 2, 3 and 4 that can be switched via inputs on the motorbike side. light function.

### 3.4 INSTALLATION

**ATTENTION!** Disconnect the vehicle battery completely before working on the electrical system. First disconnect the negative terminal, then the positive terminal. Reconnect in reverse order.

#### Pre-installation:

On the output side, there are four ignition-switched 12V battery connections (12V+) and four battery ground connections (GND), as well as four outputs 1, 2, 3 and 4 that can be switched via motorcycle-side inputs.

#### Step 1

Firstly, remove the motorcycle trim parts relevant to the installation in accordance with the manufacturer's instructions.

#### Step 2

Now fit the lighting products in the intended positions. The statutory installation regulations for the respective product must be observed.

#### Step 3

The next step is to determine a suitable installation location for the **i.NEX**. The following criteria characterise an ideal installation location for the **i.NEX**:

- Enough distance from hot vehicle components such as the engine or exhaust
- Enough ventilation to cool the **i.NEX**
- Mechanical attachment possible using heat-resistant adhesive tape
- Protection from splash water

#### Step 4

Depending on the installation location of the **i.NEX**, it may be necessary to extend the cables of the lighting products and the motorbike-side cables. For this purpose, Kellermann GmbH offers appropriately assembled cable and connector sets online at [www.kellermann-online.com](http://www.kellermann-online.com).

### Step 5

The extended cables must now be laid neatly and strain-relieved up to the **i.NEX** and fastened to the vehicle at suitable intervals using cable ties, for example. Make sure that the cables are not attached to any moving parts and that there is always enough space between them and hot vehicle components.

### Step 6

The cables laid up to the **i.NEX** must be shortened appropriately.

### NOTE:

It must be possible to insert the cables into the terminal strips easily and with no strain on them.

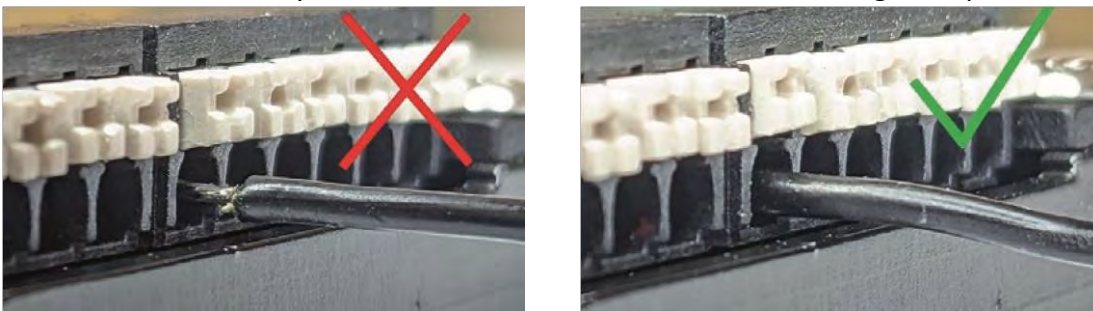
### Step 7

Strip the loose cable ends to a length of 7 mm using a wire stripper. The strands of individual wires are twisted before installation to avoid protruding strands. Ideally, the twisted strands should also be tinned.



### Step 8

Finally, press and hold the white button on the clip in question to push the twisted strands underneath the button until the cable insulation protrudes into the clip, then release the clip. Pull gently on the cable to check that it is firmly attached. All cables are connected in analogue sequence.



### Step 9

As a precautionary measure, remove the flat fuse from the **i.NEX** battery cable by pulling it out.

### Step 10

Screw the ring terminals to the battery terminals. The torque specified by the battery manufacturer must be observed.

### Step 11

The battery cable is laid in the same way as other cables and adequately secured.

### Step 12

If necessary, shorten the battery cables laid in this way.

### NOTE:

Pay attention to plus and minus.

### Step 13

Strip the loose cable ends to a length of 7 mm using a wire stripper. The strands of individual wires are twisted before installation to avoid protruding strands. Ideally, the twisted strands should also be tinned.

### Step 14

Finally, the battery cables are plugged into the terminals provided for the battery. To do this, press and hold the white button on the clip in question to push the twisted strands underneath the button until the cable insulation protrudes into the clip, then release the clip. Pull gently on the cable to check that it is firmly seated. Both cables are connected in analogue sequence.

### NOTE:

Pay attention to plus and minus.

### Step 15

Finally, the flat fuse is reinserted.

## 3.5 COMMISSIONING

### Step 16

Reconnect the battery in reverse order. First connect the positive pole, then the negative pole.

### Step 17

Next, switch on the ignition and check the correct assignment of the motorcycle-side light functions to the newly connected light products:

- Do the left/right indicators light up to the left and right when the indicator switch is operated?
- Does the hazard warning light function flash correctly? (If fitted as standard)
- Brake light illuminates when the brake is applied?
- Rear light, position light and licence plate light come on automatically when the ignition is switched on and go out when the ignition is switched off?

### NOTE:

The rotary switches should not be set higher than necessary in order to minimise heat generation.

According to § 54 StVZO, the indicators on each side must flash in phase at a frequency of  $1.5 \text{ Hz} \pm 0.5 \text{ Hz}$  (90 flashes per minute  $\pm 30$ ).

### 3.6 TECHNICAL DATA

- Inputs: 5 (4 switchable + battery clips)
- Outputs: 8 (4 switchable, 4 ignition-controlled)
- Nominal voltage, input side: 3-4 VDC
- Power consumption: max. 10 W continuous
- Operating temperature: -20 °C and +45 °C
- Weight: 156 g
- L x W x H: 83 mm x 60 mm x 15 mm
- Fuse: 7.5 A flat fuse
- Permissible cable cross-sections: 0.14 mm<sup>2</sup> - 1 mm<sup>2</sup>

i.NEX



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