



**KERN & Sohn GmbH**

Ziegelei 1  
D-72336 Balingen  
E-mail: [info@kern-sohn.com](mailto:info@kern-sohn.com)

Phone: +49-[0]7433-9933-0  
Fax: +49-[0]7433-9933-149  
[www.kern-sohn.com](http://www.kern-sohn.com)

## Modification Manual

# KERN KXS-TM / IXS / SXS / BXS

Rev. 1.0  
2020-11  
GB



This Modification Manual refers to device series  
KXS-TM / IXS / SXS / BXS and comprises devices from

**the serial number WX18060096 to the sales date 17 September  
2020**

**KXS-TM-ZB-e-2010**



## KERN KXS-TM / IXS / SXS / BXS

Rev. 1.0 2020-11

### Modification Manual

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The Modification Manual describes all the steps required to modify the device.

Any works on the meter can be carried out solely by a person holding electrical engineering qualifications as stipulated in EN 50110-1:2008-09-01 chapter 3.2.3 A person holding electrical engineering qualifications.

#### Required tools:

- cross screwdriver
- Allen wrench / hex wrench 2.0 mm
- socket wrench / open-end wrench 7 mm
- hex socket wrench 7 mm

#### Material supplied (stainless steel A2):

- hex locknut M4 DIN985 2 pieces
- spring washer B4 DIN127 4 pieces
- washer 4.3 DIN125 4 pieces
- hex nut M4 DIN934 2 pieces
- hex nut M4, low DIN439 2 pieces
- stud bolt M4 x 25 DIN916 with a hex socket head cap 2.0, 2 pieces



Before you start any works related to the maintenance, cleaning and repair, disconnect the device from the supply voltage.



Open the meter, removing 6 bolts at the back.

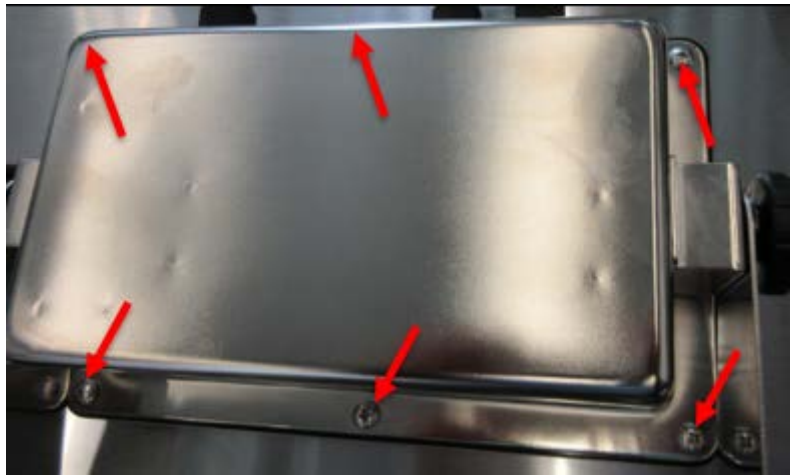
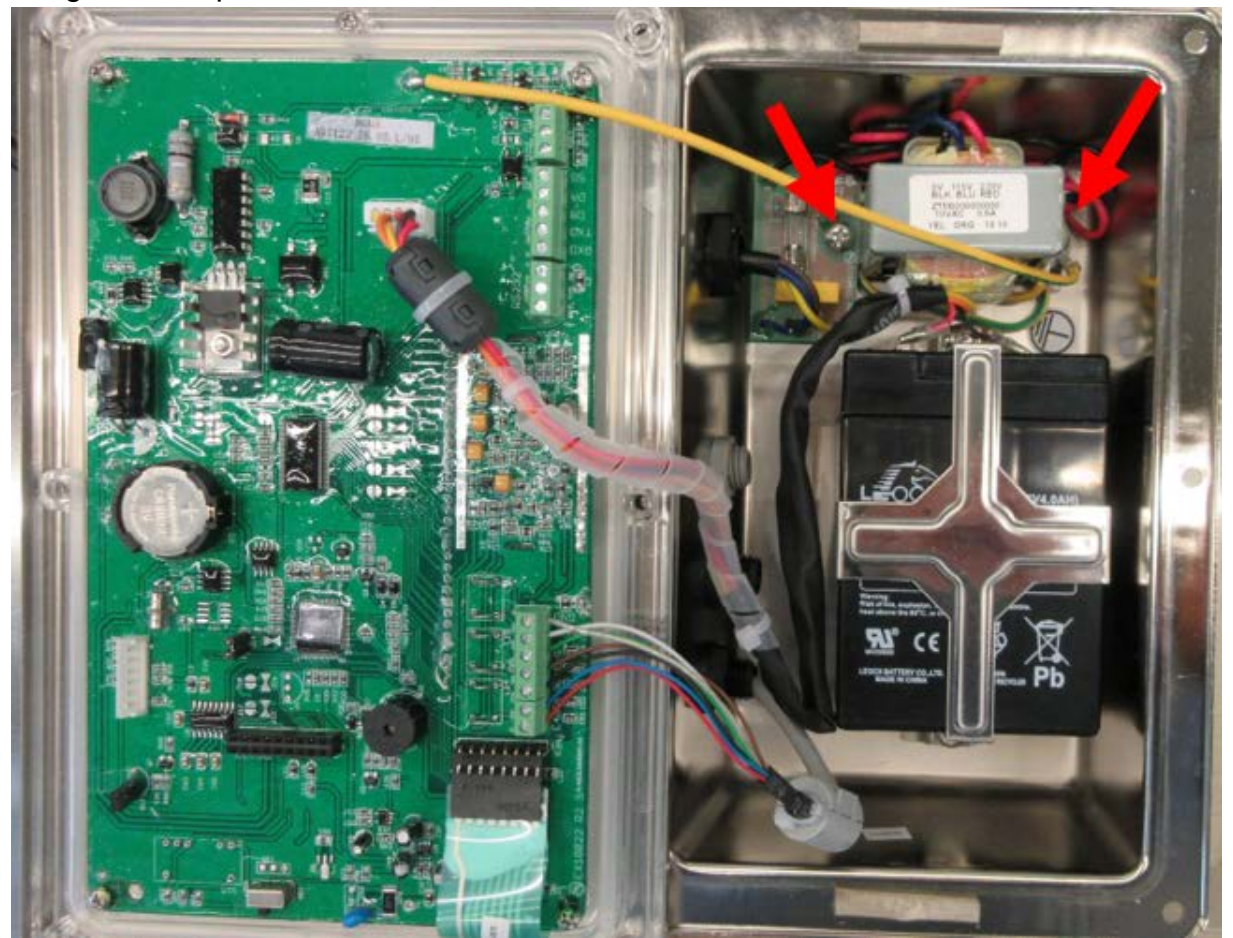


Image of the open device:



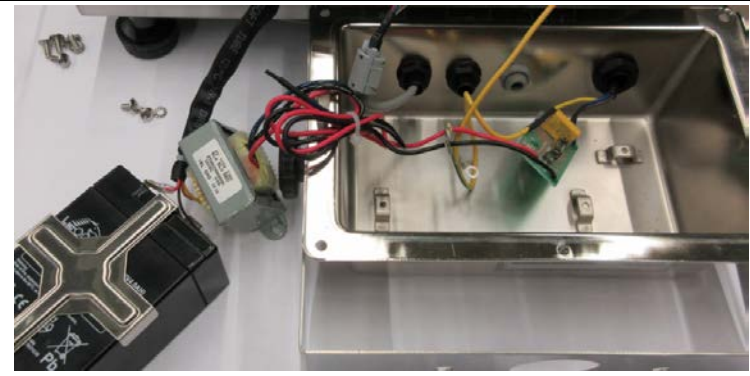
Remove the bolts fixing the plate and the tooth washer. Loosen the bolt fixing the protective conductor, remove the bolt and the tooth washer.



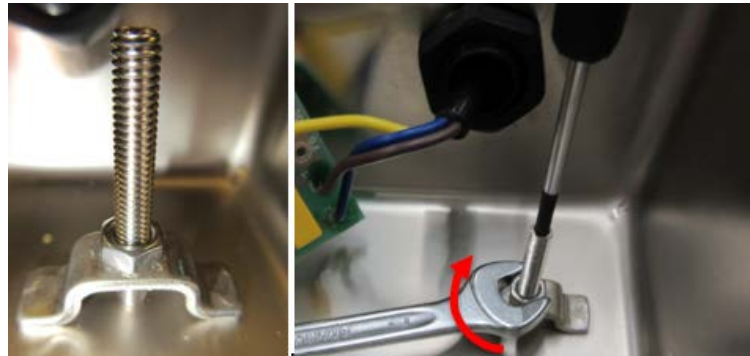
Loosen bolts holding the battery.



Place the battery and transformer with the cables connected outside the meter. Dismounting the battery ensures improved access to any components that require modification.

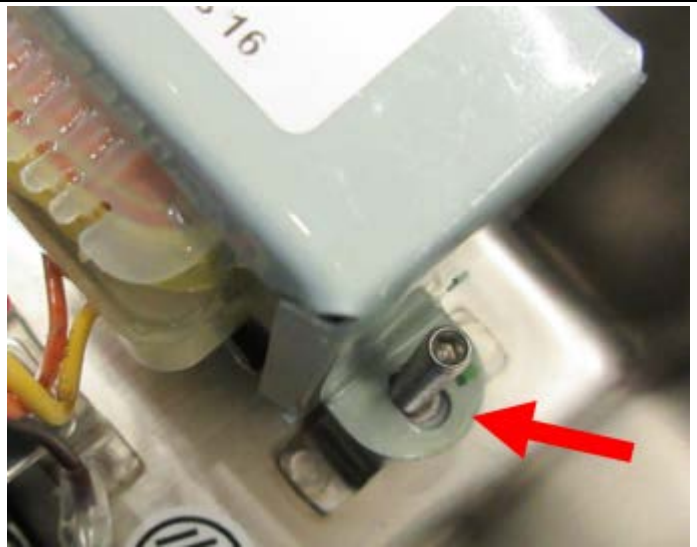


The activities below should be carried out at both transformer mount brackets:  
 Using a hex wrench, screw the stud bolts in the transformer mount bracket (the thread must not touch the rear meter wall).  
 Screw on 1 low M4 nut.  
 Using a hex wrench, hold the stud bolt in this position and tighten the nut with an open-end wrench (the nut secures the bracket).





Place the transformer mount brackets on the stud bolts and push them close to the stud bolt at the protective conductor side.



Place 1 4.3 washer on each stud bolt, then screw on 1 M4 nut on each and tighten by means of a hex socket wrench 7 mm.  
Repeat that for every mount bracket.  
**The transformer is installed.**



**Protective conductor installation:**

Place 1 flat washer.

On the stud bolt, place:

2 ring terminals of the protective conductor

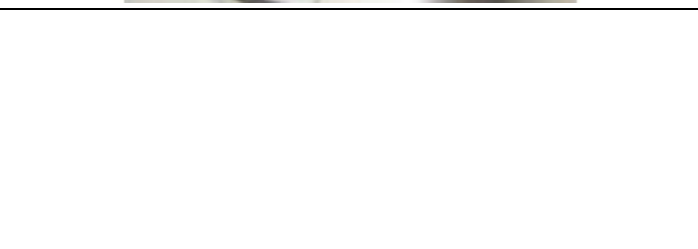
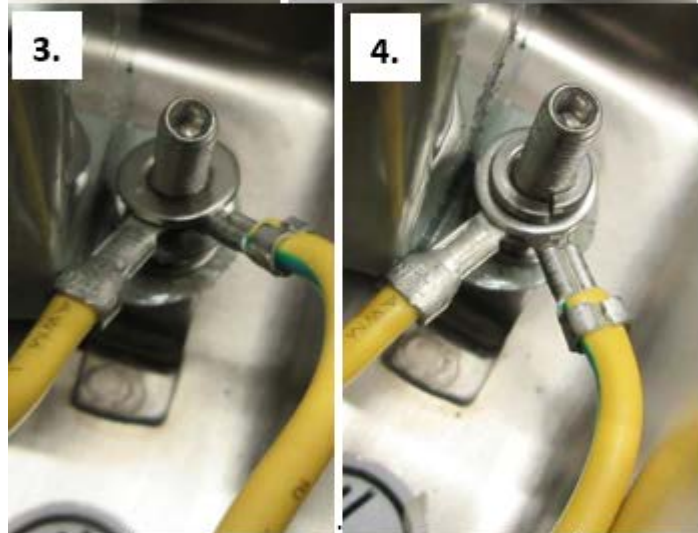
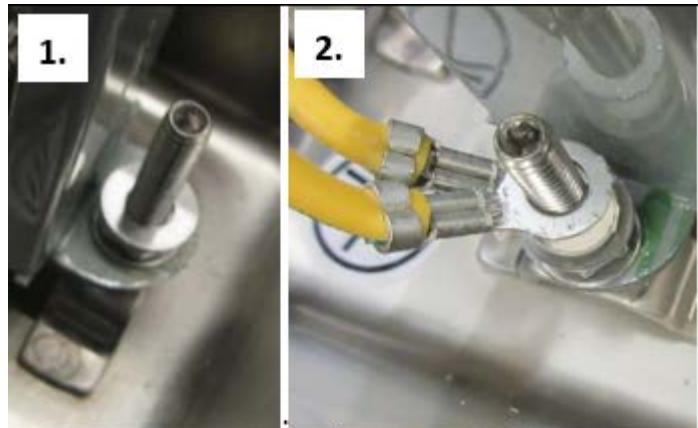
1 flat washer

1 B4 spring washer

1 M4 locknut

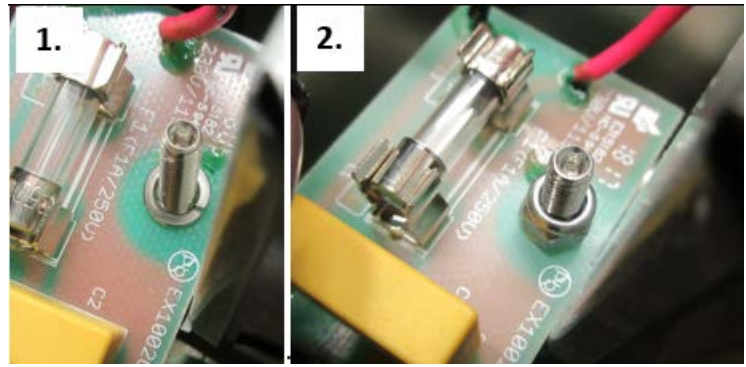
(Follow the order strictly!)

Using the hex socket wrench 7 mm, tighten the locknut well!



**Plate installation:**

Place the plate with its opening on the second stud bolt. Then place 1 B4 spring washer and 1 M4 locknut on the stud bolt. Using the hex socket wrench 7 mm, tighten the locknut well! Take care not to damage the plate during the installation.



**Assembly:**

Replace the battery in the meter. Place B4 spring washer on the bolt. Tighten the arc holder, thus installing the battery.



Re-assemble the meter.  
(6 bolts).



Carry out the test according to EN 61010-1. For example in Germany the test should comply with DGUV V3.

If the test is failed, check the protection conductor.

