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Návod na obsluhu(EN)

Obchodná váha s výpočtom ceny KERN RXB(SK)

Version 1.2
11/2010
GB



RXB-BA-e-1012

GB

KERN RXB

Version 1.2 11/2010

Operating instruction

Price computing scale

English

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English

1 Technical data

KERN	RXB 3K1M	RXB 3K1HM	RXB 6K2M	RXB 6K2HM
Readability (d)	1 g	1 g	2 g	2 g
Weighing range (max)	3 kg	3 kg	6 kg	6 kg
Minimum load	20 g	20 g	40 g	40 g
Verification value	1 g	1 g	2 g	2 g
Verification class	III	III	III	III
Reproducibility	1 g	1 g	2 g	2 g
Linearity	± 2 g	± 2 g	± 4 g	± 4 g
Stabilization time	2 sec.	2 sec.	2 sec.	2 sec.
Recommended adjusting weight (not supplied)	3 kg (M2)	3 kg (M2)	6 kg (M2)	6 kg (M2)
Net weight (kg)	4,4	4,8	4,4	4,8
Dimensions of the housing (B x D x H)	300x330x110	300x330x110 without tripod 300x330x540 with tripod	300x330x110	300x330x110 without tripod 300x330x540 with tripod
Weighing plate, stainless steel	300 x 225 mm			
Warming up time (operating temperature)	20 – 30 min			
Weighing unit	€/kg; €/100 g			
Admitted ambient temperature	-10° C to 40° C			
Humidity of air	15 % - 85 % (non-condensing)			
Voltage	230 V (AC)			
Rechargeable battery	Without backlit display: Service life c. 200 hours / loading time ca. 8 hrs.			
	With backlit display: Operating time ca. 60h. / loading time ca. 8 hrs.			

English

KERN	RXB 15K5M	RXB 15K5HM	RXB 30K10M	RXB 30K10HM
Readability (d)	5 g	5 g	10 g	10 g
Weighing range (max)	15 kg	15 kg	30 kg	30 kg
Minimum load	100 g	100 g	200 g	200 g
Verification value	5 g	5 g	10	10
Verification class	III	III	III	III
Reproducibility	5 g	5 g	10	10
Linearity	± 10 g	± 10 g	± 20	± 20
Stabilization time	2 sec.	2 sec.	2 sec.	2 sec.
Recommended adjusting weight (not supplied)	15 kg (M2)	15 kg (M2)	30 kg (M2)	30 kg (M2)
Net weight (kg)	4,4	4,8	4,4	4,8
Dimensions of the housing (B x D x H)	300x330x110	300x330x110 without tripod 300x330x540 with tripod	300x330x110	300x330x110 without tripod 300x330x540 with tripod
Weighing plate, stainless steel	300 x 225 mm			
Warming up time (operating temperature)	20 – 30 min			
Weighing unit	€/kg; €/100 g			
Admitted ambient temperature	-10° C to 40° C			
Humidity of air	15 % - 85 % (non-condensing)			
Voltage	230 V (AC)			
Rechargeable battery	Without backlit display: Service life c. 200 hours / loading time ca. 8 hrs.			
	With backlit display: Operating time ca. 60h. / loading time ca. 8 hrs.			

English

2 Declaration of conformity

KERN & Sohn GmbH
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Declaration of conformity

EG-Konformitätserklärung
EC- Déclaration de conformité
EC-Dichiarazione di conformità
EC- Declaração de conformidade
EC-Deklaracja zgodności

EC-Declaration of -Conformity
EC-Declaración de Conformidad
EC-Conformiteitverklaring
EC- Prohlášení o shode
EC-Заявление о соответствии

English

D	Konformitäts-erklärung	Wir erklären hiermit, dass das Produkt, auf das sich diese Erklärung bezieht, mit den nachstehenden Normen übereinstimmt.
GB	Declaration of conformity	We hereby declare that the product to which this declaration refers conforms with the following standards.
CZ	Prohlášení o shode	Tímto prohlašujeme, že výrobek, kterého se toto prohlášení týká, je v souladu s níže uvedenými normami.
E	Declaración de conformidad	Manifestamos en la presente que el producto al que se refiere esta declaración está de acuerdo con las normas siguientes
F	Déclaration de conformité	Nous déclarons avec cela responsabilité que le produit, auquel se rapporte la présente déclaration, est conforme aux normes citées ci-après.
I	Dichiarazione di conformitá	Dichiariamo con ciò che il prodotto al quale la presente dichiarazione si riferisce è conforme alle norme di seguito citate.
NL	Conformiteit-verklaring	Wij verklaren hiermede dat het product, waarop deze verklaring betrekking heeft, met de hierna vermelde normen overeenstemt.
P	Declaração de conformidade	Declaramos por meio da presente que o produto no qual se refere esta declaração, corresponde às normas seguintes.
PL	Deklaracja zgodności	Niniejszym oświadczamy, że produkt, którego niniejsze oświadczenie dotyczy, jest zgodny z poniższymi normami.
RUS	Заявление о соответствии	Мы заявляем, что продукт, к которому относится данная декларация, соответствует перечисленным ниже нормам.

Electronic Balance: KERN CXB/RXB/CXP

EU Directive	Standards
2004/108/EC	EN 61326-1:2006 EN 61000-3-2:2006 EN 61000-3-3:1995/A2:2005
2006/95/EC	EN 61010-1:2001

Date: 12.07.2010

Signature:

KERN & Sohn GmbH
Management

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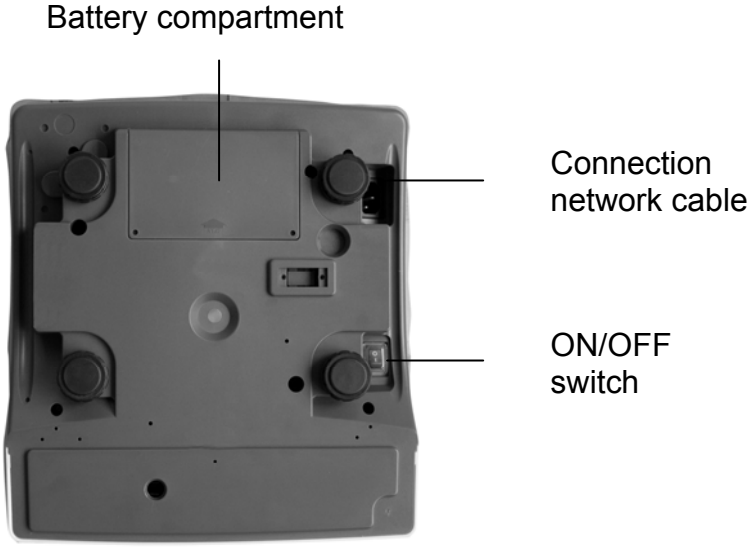
3 Appliance overview

Models without vertical display:



Secondary display on customer side:





English

Models with post-mounted display:

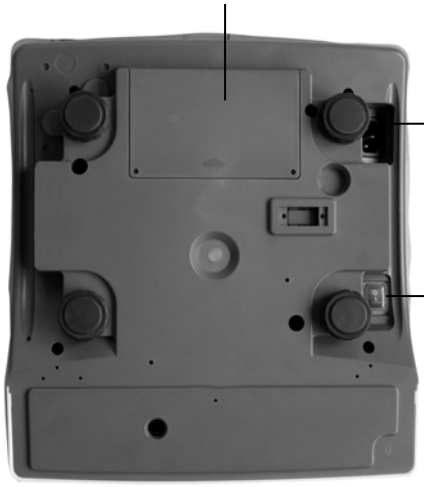


Bubble level

Post-mounted display,
backlit, revolvable



Battery compartment



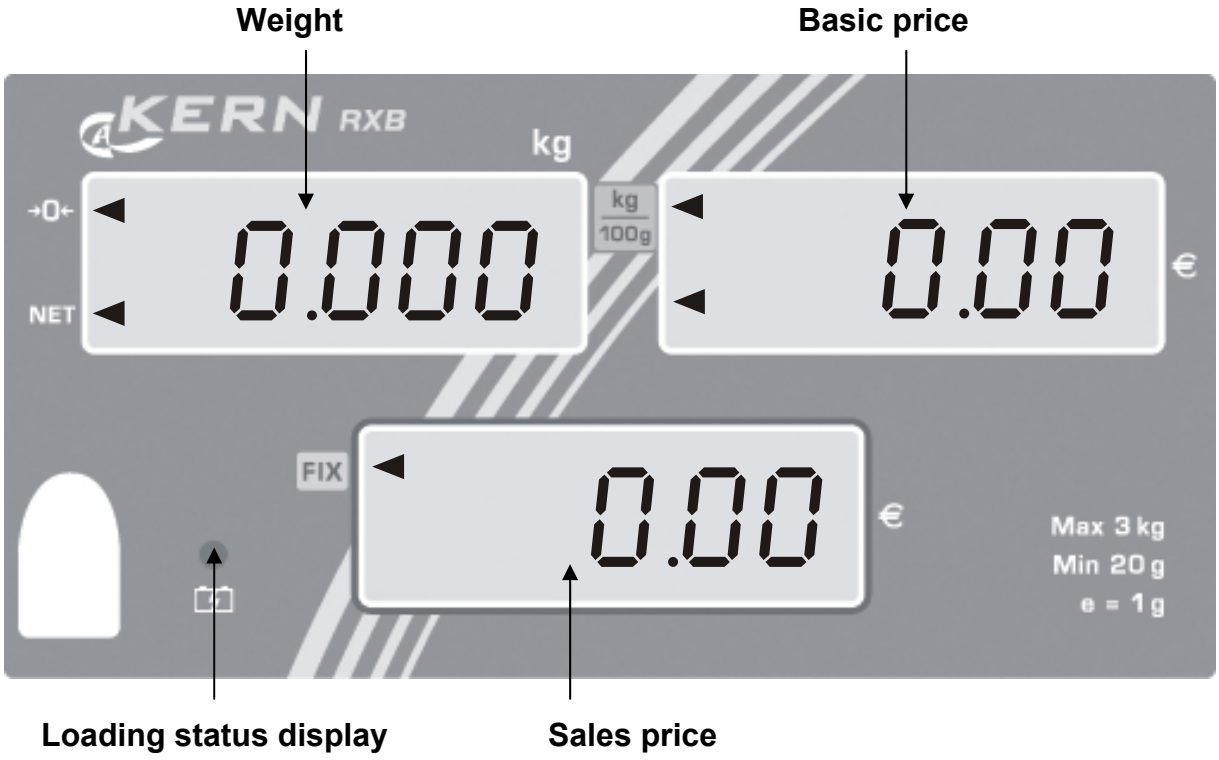
Connection
network cable

ON/OFF switch

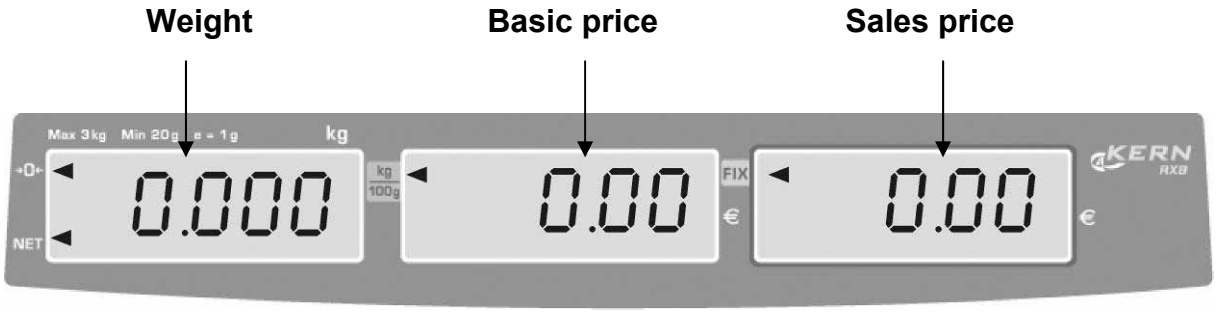
English

3.1 Overview of display

Operator display balance:



Secondary display on customer page:



English

Post-mounted display for models with tripod:



English

3.1.1 Display weight

Here, the weight of your goods is displayed.

The arrows next to the symbols show:

NET	Net weight
→0←	Zeroing display

3.1.2 Display basic price

Here, enter your basic price in €/kg or €/100 g via keyboard. The basic price can be switched to €/kg or €/100 g.

- Press -key, then 1 = basic price in €/kg
- Press -key, then 2 = basic price in €/100 g

The arrows next to the symbols show:

€/kg	Basic price in €/kg
€/100 g	Basic price in €/100 g

3.1.3 Display sale price

Here the sales price is displayed in Euro [€].

The arrows next to the symbols show:

FIX	Stored basic price//FIX mode "on"

3.2 Keyboard overview



Choice	Function
0 - 9	• Number keys, enter basic price /PLU
00	• Enter "00"
	• Press -key, then 1 = basic price in €/kg • Press -key, then 2 = basic price in €/100 g
CE	• Delete total basic price
C	• Delete last input of basic price
→0←	• Zero key, range (±2 % max)
TARE	• Taring key
FIX	• Store set basic price • FIX-Mode „on“/“off“

English

4 Basic Information (General)

4.1 Proper use

The balance you purchased is intended to determine the weighing value of material to be weighed. It is intended to be used as a “non-automatic“ balance, i.e. the material to be weighed is manually and carefully placed in the centre of the weighing plate. As soon as a stable weighing value is reached the weighing value can be read.

4.2 Improper Use

Do not use balance for dynamic weighings. In the event that small quantities are removed or added to the material to be weighed, incorrect weighing results can be displayed due to the “stability compensation“ in the balance. (Example: Slowly draining fluids from a container on the balance.)
Do not leave permanent load on the weighing plate. This may damage the measuring system.
Impacts and overloading exceeding the stated maximum load (max) of the balance, minus a possibly existing tare load, must be strictly avoided. Balance may be damage by this.
Never operate balance in explosive environment. The serial version is not explosion protected.
The structure of the balance may not be modified. This may lead to incorrect weighing results, safety-related faults and destruction of the balance.
The balance may only be used according to the described conditions. Other areas of use must be released by KERN in writing.

4.3 Warranty

Warranty claims shall be voided in case

- Our conditions in the operation manual are ignored
- The appliance is used outside the described uses
- The appliance is modified or opened
- Mechanical damage or damage by media, liquids, natural wear and tear
- The appliance is improperly set up or incorrectly electrically connected
- The measuring system is overloaded

4.4 Monitoring of Test Resources

In the framework of quality assurance the measuring-related properties of the balance and, if applicable, the testing weight, must be checked regularly. The responsible user must define a suitable interval as well as type and scope of this test. Information is available on KERN's home page (www.kern-sohn.com with regard to the monitoring of balance test substances and the test weights required for this. In KERN's accredited DKD calibration laboratory test weights and balances may be calibrated (return to the national standard) fast and at moderate cost.

5 Basic Safety Precautions

5.1 Pay attention to the instructions in the Operation Manual

Carefully read this operation manual before setup and commissioning, even if you are already familiar with KERN balances.

5.2 Personnel training

The appliance may only be operated and maintained by trained personnel.

6 Transport and storage

6.1 Testing upon acceptance

When receiving the appliance, please check packaging immediately, and the appliance itself when unpacking for possible visible damage.

6.2 Packaging

Keep all parts of the original packaging in case you need to return the appliance.
Only use original packaging for returning.
Before sending, disconnect all connected cables and loose/movable parts.
Attach possibly existing transport safeguards. Secure all parts, e.g. weighing plate, power unit etc., to prevent slipping and damage.

7 Unpacking, Setup and Commissioning

7.1 Installation Site, Location of Use

The balances are designed in a way that reliable weighing results are achieved in common conditions of use.
You will work accurately and fast, if you select the right location for your balance.

Therefore, observe the following for the installation site:

- Place the balance on a firm, level surface;
- Avoid extreme heat as well as temperature fluctuation caused by installing next to a radiator or in the direct sunlight;
- Protect the balance against direct draughts due to open windows and doors;
- Avoid jarring during weighing;
- Protect the balance against high humidity, vapours and dust;
- Do not expose the device to extreme dampness for longer periods of time. Non-permitted condensation (condensation of air humidity on the appliance) may occur if a cold appliance is taken to a considerably warmer environment. In this case, acclimatize the disconnected appliance for ca. 2 hours at room temperature.
- Avoid static charge of goods to be weighed or weighing container.

Major display deviations (incorrect weighing results) may be experienced should electromagnetic fields (e.g. due to mobile phones or radio equipment), static electricity accumulations or instable power supply occur. Change location or remove source of interference.

7.2 Unpacking

Carefully remove the balance from the packaging, remove plastic cover and setup balance at the intended workstation.

7.2.1 Setup

Level balance with foot screws until the air bubble of the water balance is in the prescribed circle.

7.2.2 Scope of delivery

Serial accessories:

- Balance
- Weighing plate
- Power cable
- Protective cover
- Rechargeable battery
- Operating Manual

7.3 Mains connection

Power supply is carried out by means of the supplied power cable (220 V, 50-60 Hz).

7.4 Battery power supply

The optionally supplied battery is charged with the supplied power supply.
Before the first use, the battery should be charged by connecting it to the mains power supply for at least 15 hours. The battery has a service life of c. 200 hours without background lighting or 60 hours with background lighting. The charging period for total charge is c. 8 hours

The appearance of the battery symbol (–) in the weight display indicates that the battery is almost exhausted. If no weighing process is carried out during the red LED display, the balance will switch off automatically after about 20-30 minutes. Connect the power adaptor as soon as possible to change the battery.

The LED display provides information about the battery's charging status.
red: Battery is almost discharged
green: Battery is completely discharged

7.5 Initial Commissioning

In order to obtain exact results with the electronic balances, your balance must have reached the operating temperature (see warming up time chap. 1). During this warming up time the balance must be connected to the power supply (mains, accumulator or battery).

7.6 Balance zero display

Environmental influences can lead to the exact figure of zero not being displayed in spite of an empty weighing dish. It is, however, possible to reset your balance to zero at any time and thus ensure that weighing really does commence at zero. Setting to zero when a weight is applied is only possible within a certain type-dependent range. In the event that the balance cannot be reset to zero with an applied weight, this range has been exceeded (± 0,2 % max).
To reset the balance to zero, press key →0← . A triangle [◀] pops up next to the [a] symbol on the display.

8 Operation

8.1 Weighing with price determination

As soon as the goods to be weighed are placed on the balance and the basic price has been set the price is calculated automatically and displayed in the provided field.

8.1.1 Manual input of a basic price

Operation	Display		
	Weight [kg]	Basic price [€/kg]	Price [€]
If you are using a weighing container use the **TARE** key for taring	0.000	0.00	0.00
Place goods to be weighed on balance	1.300	0.00	0.00
Enter basic price via number keys; sales price is automatically calculated	1.300	5.00	6.50
Remove goods to be weighed; basic price and possible tare value will be deleted automatically after about 2 sec. The zero display of the balance appears in all three display windows.	0.000	0.00	0.00
For additional weighing processes re-enter the basic price / tare value.			

English

8.1.2 FIX mode – Storing a basic price

When FIX -Mode is activated, the set basic price will be stored for additional weighing processes of the same product.

Operation	Display		
	Weight [kg]	Basic price [€/kg]	Price [€]
Press **FIX** key, balance is in FIX mode. A triangle [◀] pops up next to the [**FIX**] symbol (FIX mode "on") on the display.	0.000	0.00	0.00
If you are using a weighing container use the **TARE** key for taring	0.000	0.00	0.00
Place goods to be weighed on balance	1.300	0.00	0.00
Enter basic price via numeric keys, sales price will be determined automatically and the basic price will be stored.	1.300	5.00	6.50
Remove goods to be weighed; basic price and possible. Tara values will **not** be deleted.	0.000	5.00	0.00
Due to the basic price / tare value remaining, no further input of the basic price / taring will be required for additional weighing processes of the same product.			
Deleting stored basic price: Press **CE** key			
Deleting stored tare value: Press **TARE** key			
Exit FIX mode: Press **FIX** key, [◀] next to [**FIX**] is extinguished.			

English

9 Display background illumination

Method 1:

	Adjustment	**Function**
Auto back-light	→0← -Press key, [CEntr] appears on the weight display. Press the **4** key during this display.	This display will appear backlit for weight value > 6 d or after key was pressed. Display disappears after 5 sec when display moves towards zero.
Backlight off	→0← -Press key, [CEntr] appears on the weight display. Press the **5** key during this display.	Backlight switched off to save battery.

English

The set mode will remain after the balance was turned off.

Method 2:

Press **0**-key for 2 sec, acoustic signal sounds 3 times. This procedure can be used to switch between **auto backlight** and **backlight off**.

10 Function menu

10.1 Navigation in the menu



Menu activation key (not visible)
Press this key and keep on pressing it when balance is turned off. Whilst doing this, turn on balance. Keep pressing down the key until the balance counts down to zero and the first function F0 appears.

Further functions F0 – F8 are selected by pressing the TARE key.

Exit menu by pressing the 00 key, balance returns to weighing mode.

English

10.2 Menu overview

F0 Not documented, settings are not allowed to be modified

Press TARE key

⇓

F1 Not documented, settings are not allowed to be modified

Press TARE key

⇓

F2 Not documented, settings are not allowed to be modified

Press TARE key

⇓

F3 Adjustment (see chap. 10.3)

Press TARE key

⇓

F4 Not documented, settings are not allowed to be modified

Press TARE key

⇓

F5 Not documented, settings are not allowed to be modified

Press TARE key

⇓

F6 Not documented, settings are not allowed to be modified

Press TARE key

⇓

F7 Not documented, settings are not allowed to be modified

Press TARE key

⇓

F8 Not documented, settings are not allowed to be modified

10.3 Adjustment

As the acceleration value due to gravity is not the same at every location on earth, each balance must be coordinated - in compliance with the underlying physical weighing principle - to the existing acceleration due to gravity at its place of location (only if the balance has not already been adjusted to the location in the factory). This adjustment process must be carried out for the first commissioning, after each change of location as well as in case of fluctuating environment temperature.
To receive accurate measuring values it is also recommended to adjust the balance periodically in weighing operation.

Procedure when adjusting:
Attention:
In calibrated balances the adjustment function is switch locked.
To carry out calibrations, you will have to throw the unlock switch (See chpt. 11.1).
Observe stable environmental conditions. A warming up time of ca. 30 minutes is required for stabilization. Ensure that there are no objects on the weighing plate.

- Activate the calibrating function F3 in the menu (See chpt. 10)

Weight	Basic price	Sales price
F3	**WIDE**	**CAL.**

- Press **0**-key, the following display will appear:

Weight	Basic price	Sales price
0,000	**kg**	**XXXXXX** (internal value)

- Ensure that there are no objects on the weighing plate.
- Operate menu activation key (10.1); stop check is carried out, then the weight value of the calibrating weight will appear on the weight display

Weight	Basic price	Sales price
3.000 (maximum load)	**Kg** (weighing unit)	**XXXXXX** (internal value)

- Carefully place adjusting weight in the centre of the weighing plate
- Operate menu activation key (see chap. 10.1)

Weight	Basic price	Sales price
CAL.	**done**	

- While the balance is counting down to zero, remove the adjusting weight.
- The balance returns automatically into weighing mode. An error message will appear on the display should a adjustment error occur or should the adjustment weight be incorrect. Turn balance off, then restart it and repeat the adjustment process.

Notice: Again throw the verification switch for calibrated balances.

11 Verification

General introduction:

According to EU directive 90/384/EEC balances must be officially verified if they are used as follows (legally controlled area):

a) For commercial transactions if the price of goods is determined by weighing.
b) For the production of medicines in pharmacies as well as for analyses in the medical and pharmaceutical laboratory.
c) For official purposes.
d) For manufacturing final packages.

In cases of doubt, please contact your local trade in standard.

After verification the balance is sealed at the indicated positions.
Verification of the balance is invalid without the "seal/lead seal".

Verification instructions

An EU type approval exists for balances described in their technical data as verifyable. If a balance is used where obligation to verify exists as described above, it must officially verified and re-verified in regular intervals.
Re-verification of a balance is carried out according to the respective national regulations. The validity for verification of balances in Germany is e.g. 2 years.
The legal regulation of the country where the balance is used must be observed!

Balances with obligation to verify must be taken out of operation if:

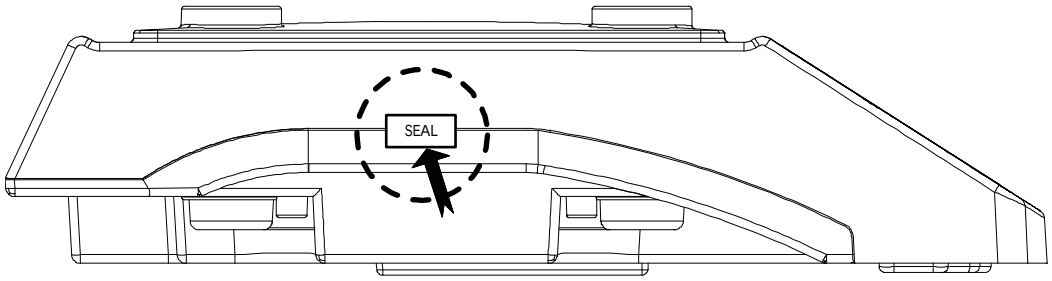
- The **weighing result** of the balance is outside the **error limit.** Therefore, in regular intervals load balance with known test weight (ca. 1/3 of the max. load) and compare with displayed value.
- The **reverification deadline** has been exceeded.

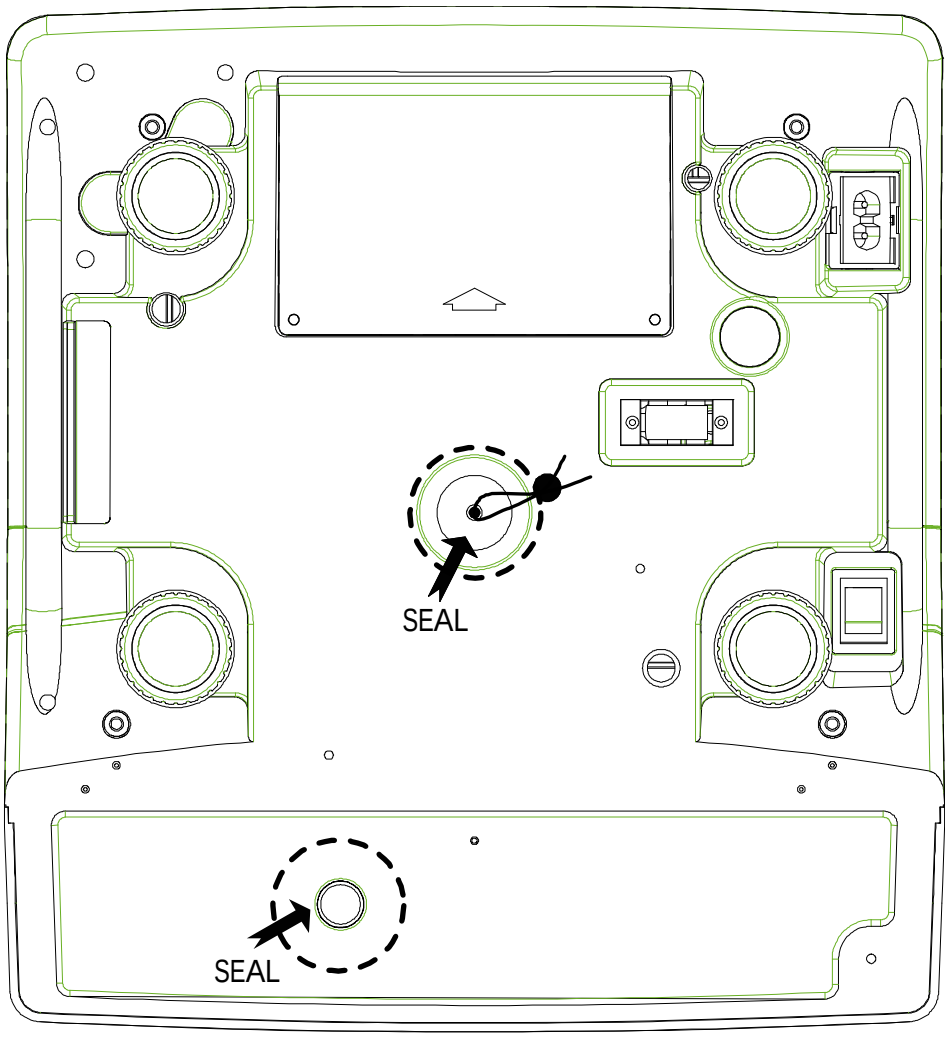
11.1 Adjustment key and seals

When verification of a scale is finished, the positions indicated on the scale are sealed.

Verification of a scale without a seal is invalid.

Position of seals:





English

12 Service, maintenance, disposal

12.1 Cleaning

Before cleaning, please disconnect the appliance from the operating voltage.

Please do not use aggressive cleaning agents (solvents or similar agents), but a cloth dampened with mild soap suds. Ensure that no liquid penetrates into the device and wipe with a dry soft cloth.
Loose residue sample/powder can be removed carefully with a brush or manual vacuum cleaner.

Spilled weighing goods must be removed immediately.

12.2 Service, maintenance

The appliance may only be opened by trained service technicians who are authorized by KERN.
Before opening, disconnect from power supply.

12.3 Disposal

Disposal of packaging and appliance must be carried out by operator according to valid national or regional law of the location where the appliance is used.

13 Instant help

In case of an error in the program process, briefly turn off the balance and disconnect from power supply. The weighing process must then be restarted from the beginning.

Fault	***Possible cause***
The displayed weight does not glow.	• *The balance is not switched on.*
	• *The mains supply connection has been interrupted (mains cable not plugged in/faulty).*
	• *Power supply interrupted.*
	• *Batteries are inserted incorrectly or empty*
	• *No batteries inserted.*
The displayed weight is permanently changing	• *Draught/air movement*
	• *Table/floor vibrations*
	• *Weighing plate has contact with other objects.* • *Electromagnetic fields / static charging (choose different location/switch off interfering device if possible)*
The weighing result is obviously incorrect	• *The display of the balance is not at zero*
	• *Adjustment is no longer correct.*
	• *Great fluctuations in temperature.* • *Electromagnetic fields / static charging (choose different location/switch off interfering device if possible)*

Should other error messages occur, switch balance off and then on again. If the error message remains inform manufacturer.

English