KERN & Sohn GmbH
Ziegelei 1
D-72336 Balingen
E-Mail: info@kern-sohn.com
Phone: +49-[0]7433- 9933-0
Fax: +49-[0]7433-9933-149
Internet: www.kern-sohn.com

KERN eco

Návod na obsluhu(EN)
Obchodná váha s výpočtom ceny

KERN RFB(SK)

Version 1.1
01/2012
GB



RFB-BA-e-1211

GB

KERN RFB

Version 1.1 01/2012

Operating instructions

Price calculating balance

English

Contents

1 Technical data 4

2 Device overview 5

2.1 Dimensions 5
2.2 Overview of display 6
2.2.1 Display weight 7
2.2.2 Display basic price 7
2.2.3 Display sale price 7
2.3 Keyboard overview 8

3 Basic Information (General) 9

3.1 Proper use 9
3.2 Improper Use 9
3.3 Warranty 10
3.4 Monitoring of Test Resources 10

4 Basic Safety Precautions 10

4.1 Pay attention to the instructions in the Operation Manual 10
4.2 Personnel training 10

5 Transport and storage 11

5.1 Testing upon acceptance 11
5.2 Packaging / return transport 11

6 Unpacking, Setup and Commissioning 11

6.1 Installation Site, Location of Use 11
6.2 Unpacking 12
6.2.1 Placing 13
6.2.2 Pressure compensation screw: 14
6.3 Scope of delivery 14
6.4 Mains connection 14
6.5 Battery power supply 15
6.5.1 Rechargeable battery installation 15
6.5.2 Mains connection during rechargeable battery operation 17
6.6 Initial Commissioning 17
6.7 Type of protection IP- 65 17
6.8 Adjustment 18
6.9 Verification 20
6.9.1 Position of seals and adjusting switch 22

7 Operation 23
7.1 Switch on/off and set zero 23
7.2 Simple weighing 24
7.3 Weighing with taring 25
7.4 Weighing units switch-over 26
7.5 Background illumination 27
7.6 Auto-Off function 28
7.7 Weighing with price determination 30
7.7.1 Manual input of a basic price 30
7.7.2 Saving and calling up a basic price 31
7.8 Determining the price per number of items 33

8 The menu 34
8.1 Navigation in the menu 34
8.2 Menu overview 35

9 Error messages 36

10 Service, maintenance, disposal 37
10.1 Clean 37
10.2 Service, maintenance 37
10.3 Disposal 37

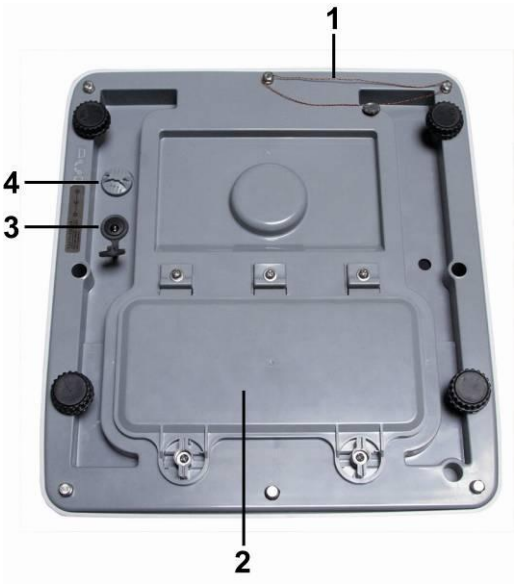
11 Instant help 38

English

1 Technical data

KERN	RFB 3K1IPM	RFB 6K2IPM	RFB 15K5IPM
Readability (d)	1 g	2 g	5 g
Weighing range (max)	3 kg	6 kg	15 kg
Minimum load	20 g	40 g	100 g
Verification value (e)	1 g	2 g	5 g
Verification class	III	III	III
Reproducibility	1 g	2 g	5 g
Linearity	± 1 g	± 2 g	± 5 g
Stabilization time	2 sec.	2 sec.	2 sec.
Recommended adjusting weight (not supplied)	2 kg (M1) 1 kg (M1)	5 kg (F2) 1 kg (F2)	5 kg (M1) 10 kg (M1)
Net weight (kg)	4,2		
Dimensions, completely assembled (W x D x H) [mm]	286 x 316 x 126		
Weighing plate, stainless steel	200 x 260 mm		
Heating time (operating temperature)	10 min		
Weighing unit	kg, g		
Permissible ambient condition	-10° C to 40° C		
Allowable air humidity	0% - 80% (non-condensing)		
Electric Supply	Input Voltage: 220V-240V AC 50Hz Secondary voltage powerpack: 12V, 500 mA		
Rechargeable battery	6V; 3.2Ah Operating time – background lighting ON approx. 40 hrs. Operating time – background lighting OFF approx. 60 hrs. Loading time approx. 12 hrs.		
Auto-Off (rechargeable battery)	adjustable 3, 5, 10, 30 min, off		
Display	LCD, digit height 15mm		
IP protection	IP 65		

2 Device overview



1 Verification wire

2 Battery compartment

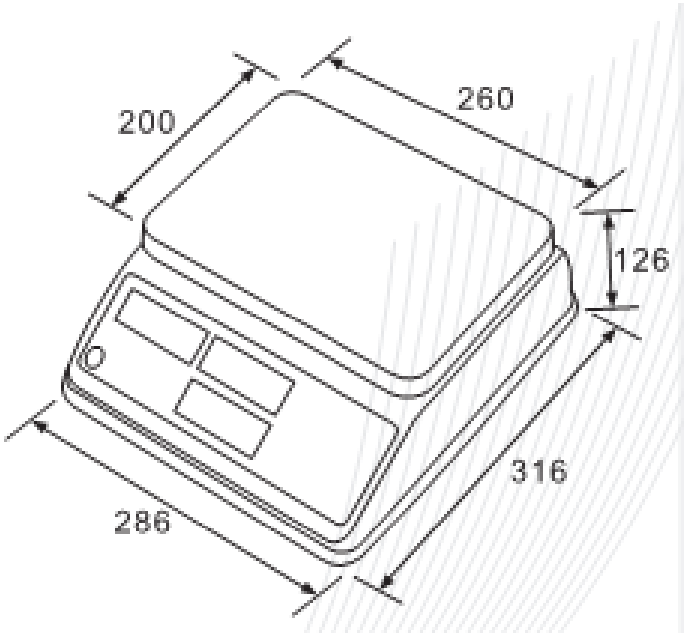
3 Connection of mains adapter

4 Pressure compensation screw



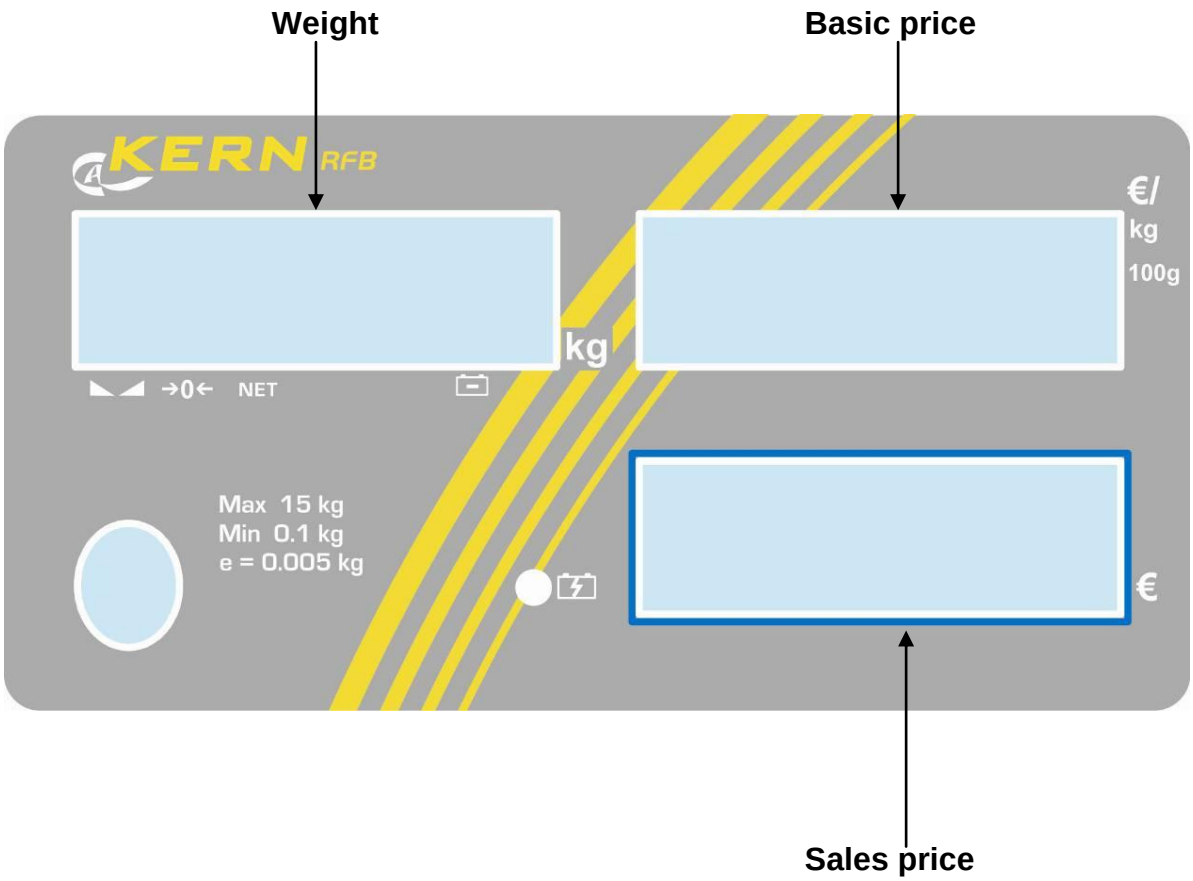
Membrane for degree of protection IP67

2.1 Dimensions



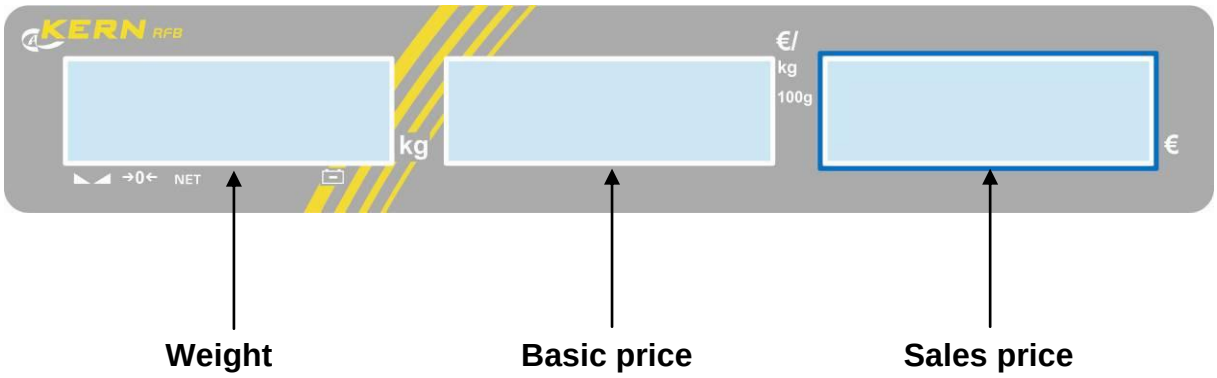
2.2 Overview of display

Operator display balance:



English

Secondary display on customer side:



2.2.1 Display weight

Here, the weight of your goods is displayed.

The arrows above the symbols show:

◣◢	Stability display
→0←	Zeroing display
NET	Net weight
⊟	Battery very low

2.2.2 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.

The arrows above the symbols show:

€/100 g	Saved basic price in €/100 g
€/kg	Saved basic price in €/kg

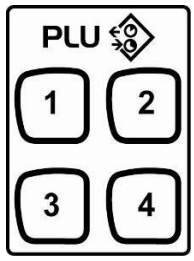
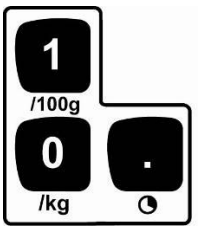
2.2.3 Display sale price

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

2.3 Keyboard overview



Selection	Function	
	in weighing mode	**in menu**
ON/OFF	**Turn on/off**	-
→0←	**Zeroing key:** • Balance zeroing • Invoke function background illumination (press button long time)	• Exit menu and return to weighing mode • Exit submenu and return to main menu item
€ %	• Price calculation per number of items • Invoke function Auto-Off	-
TARE	**Taring key:** • Tare balance • Store pretare-value	• Access to menu • Choose selected parameter
3	In functions **background illumination** and **Auto-OFF**: change between the single settings	• change between the single parameters
0 - 9	**Numeric keys:** • Entering the basic price/PLU • Entering the pretare value	-

Selection	Function	
	in weighing mode	**in menu**
	• Saving and invoking the four **PLU** values	-
	• Switch-over buttons **€/kg** or **€/100g**	-
	• **Deleting key**	-

3 Basic Information (General)

3.1 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.

3.2 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“. (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.

3.3 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

3.4 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.

4 Basic Safety Precautions

4.1 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.

4.2 Personnel training

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

5 Transport and storage

5.1 Testing upon acceptance

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

5.2 Packaging / return transport



- ⇨ Keep all parts of the original packaging for a possibly required return.
- ⇨ Only use original packaging for returning.
- ⇨ Prior to dispatch disconnect all cables and remove loose/mobile parts.
- ⇨ Reattach possibly supplied transport securing devices.
- ⇨ Secure all parts such as the glass wind screen, the weighing platform, power unit etc. against shifting and damage.

6 Unpacking, Setup and Commissioning

6.1 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.
- Do not operate in areas with hazard of explosive material or in potentially explosive atmospheres due to materials such as gasses, steams, mists or dusts.
- Keep away chemicals (such as liquids or gasses), which could attack and damage the balance inside or from outside.
- Keep IP protection of the device.
- If electro-magnetic fields or static charge occur, or if the power supply is unstable major deviations on the display (incorrect weighing results) are possible. In that case, the location must be changed.

6.2 Unpacking

Remove device and accessories carefully from packaging, remove packaging material and place device at the planned work place. Verify that there has been no damage and that all packing items are present.

6.2.1 Placing

Assembly description:

⇨ Place the balance on a firm, level surface



7 Place the support of the weighing plate on the balance

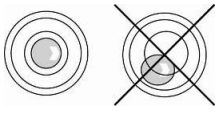


⇨ Insert shim
⇨ Using the hexagonal wrench of scope of delivery, fasten the screw carefully so that the weighing system will not be damaged



⇨ Place weighing plate





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

⇨ Check levelling regularly.

English

6.2.2 Pressure compensation screw:

On the lower side of the balance there is a pressure compensation screw **[1]** which has to be opened for the weighing process. Fasten the screw before cleaning the balance.





English

6.3 Scope of delivery

Serial accessories:

- Balance
- Weighing plate
- Carrier weighing plate
- Power cable
- Hexagonal socket wrench
- Shim
- Fastening screw of the carrier weighing plate
- Rechargeable battery
- Operating instructions

6.4 Mains connection

Power is supplied via the external mains adapter. The stated voltage value must be the same as the local voltage.
Only use KERN original mains adapter. Using other makes requires consent by KERN.

Connection of power pack on the lower side of the balance



6.5 Battery power supply

Before the first use, the battery should be charged by connecting it to the mains power supply for at least 12 hours. For this purpose the balance needs not to be switched on.

The operating time of the rechargeable battery with background illumination is about 40h. without background illumination approx. 60 hrs. Charging time until complete recharging is approx. 12h
AUTO-OFF function can be selected after 3, 5, 15, 30 min. to save the rechargeable battery.

If an arrow [▼] appears on the weight display above the battery symbol , the capacity of the rechargeable battery will soon be exhausted. Connect the power adapter as soon as possible to change the battery.

The LED display beside the piece number window informs you during charging about the charging status of the rechargeable battery.

red: Battery is almost discharged
green: Battery is completely discharged
yellow: Charging storage battery

6.5.1 Rechargeable battery installation



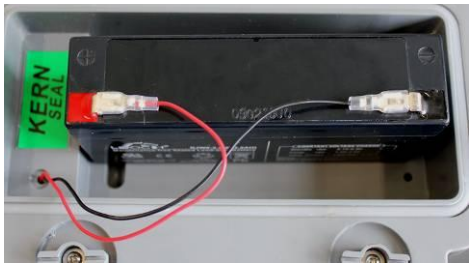
⇨ Remove any adherent moisture from the balance

⇨ Move both levers 90° to the left

English



⇨ Remove the rechargeable battery cover



⇨ Connecting the rechargeable battery

Watch the colours:

Red on red !

Black on black!



⇨ Insert the rechargeable battery in a manner that it cannot slip (fasten with a rubber mat)

⇨ Ensure that the cables are not squeezed.



⇨ Close the rechargeable battery cover

⇨ Move both levers 90° to the right

Avoid excess pressure as this may damage the balance, particularly as it is supported by the weighing plate.

6.5.2 Mains connection during rechargeable battery operation

During the rechargeable battery operation ensure that the mains connection is covered with a rubber cap.

Only by this the type of protection IP65 is ensured.



6.6 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).

The accuracy of the balance depends on the local acceleration of gravity.
Strictly observe hints in chapter 6.8 Adjustment.

6.7 Type of protection IP- 65

Suitable for a short-time contact with liquids. For cleaning use a wet cloth. Dust-proof.

6.8 Adjustment

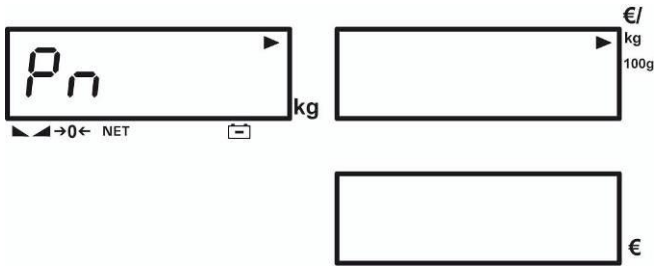
As the acceleration value due to gravity is not the same at every location on earth, each balance must be coordinated - in compliance with the underlying physical weighing principle - to the existing acceleration due to gravity at its place of location (only if the balance has not already been adjusted 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.

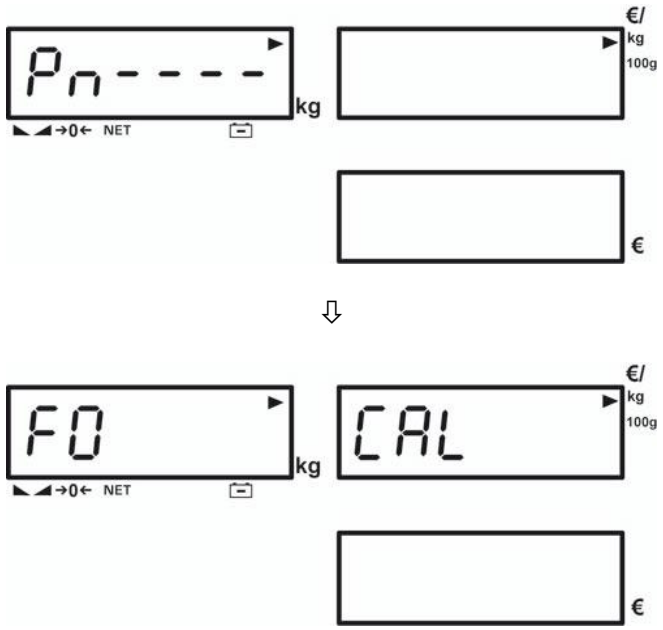
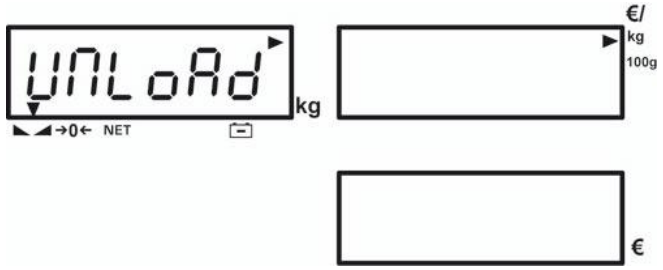
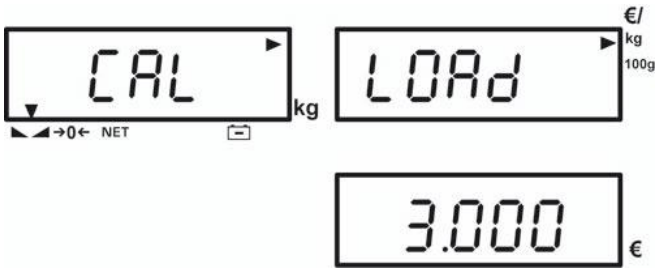
Verified models:

The adjustment is locked for verified balances.

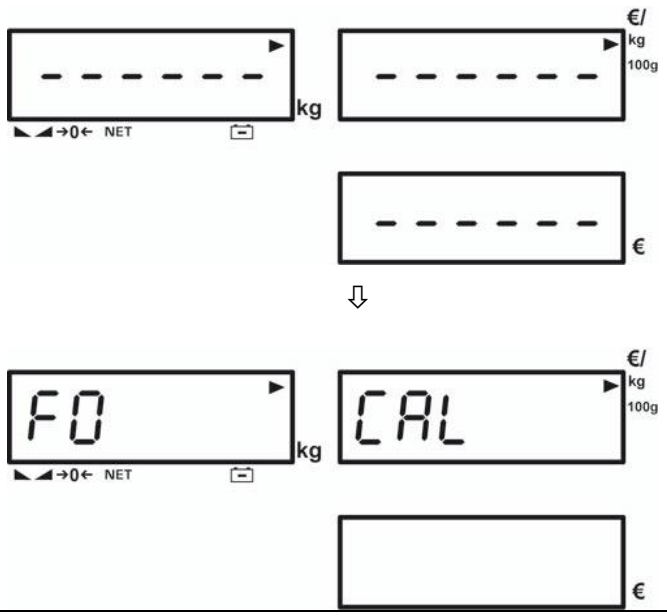
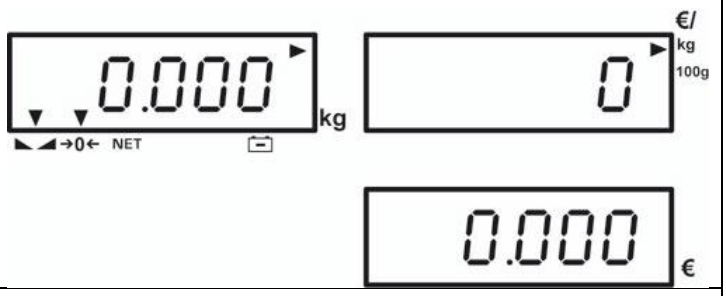
To disable the access lock, destroy the seal and actuate the adjustment switch. Position of the adjustment switch see chap. 6.9.1

Attention:
After destruction of the seal the balance must be re-verified by an authorised agency and a new verification wire/seal mark fitted before it can be reused for applications subject to verification.

Operation	Display
⇨ Switch on balance ⇨ While the balance carries out a self test, press TARE .	

⇨ Use the numeric keys to enter password „0000“ ⇨ Actuate adjustment switch on the lower side of the balance (see chap.6.9.1) ⇨ Then press TARE	
⇨ Press adjustment switch again ⇨ Press TARE	
Ensure that there are no objects on the weighing plate. ⇨ Press TARE .	The required adjustment weight is displayed:  (Example)

English

⇨ Wait for the appearance of the triangle ▼ over the stability display ◣◢, then place the adjustment weight ⇨ Confirm with TARE The adjustment process is started. ⇨ The display changes to „F0 CAL“ Now the process of adjustment is completed. ⇨ Remove adjustment weight from weighing plate	
⇨ Using →0← the balance returns into the weighing mode	
In case of an adjustment error or incorrect adjusting weight the display will show an error message; repeat adjustment process.	

6.9 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 purpose.
d) For manufacturing final packages.

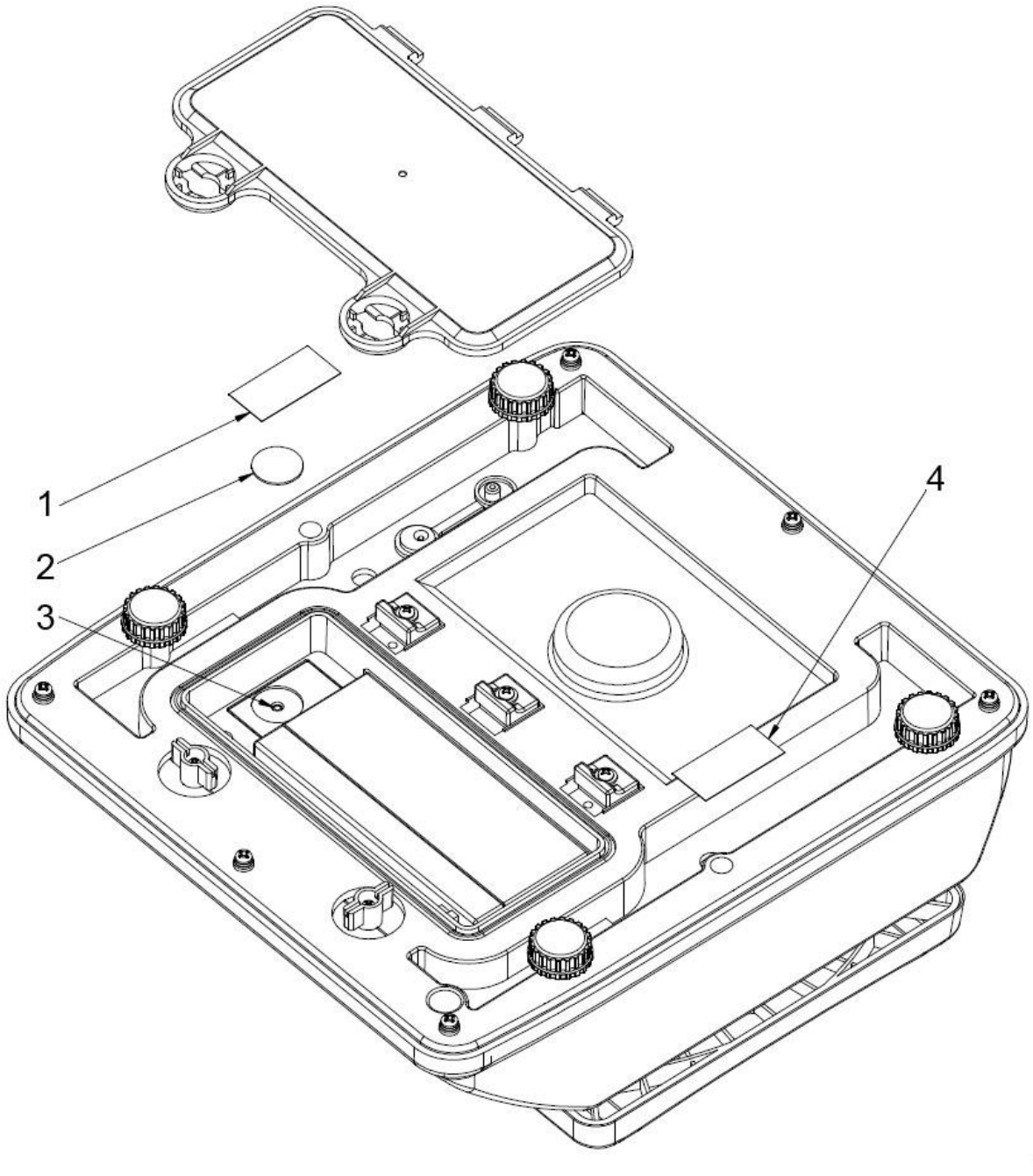
In cases of doubt, please contact your local trade in standard.

Verification notes:
An EU type approval exists for balances described in their technical data as verifiable. If a balance is used where obligation to verify exists as described above, it must be verified and re-verified at 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!

Verification of the balance is invalid without the seal.
The seal marks attached on verified balances point out that the balance may only be opened and serviced by trained and authorised specialist staff. If the seal mark is destroyed, verification looses its validity. Please observe all national laws and legal regulations. In Germany a re-verification will be necessary.

6.9.1 Position of seals and adjusting switch

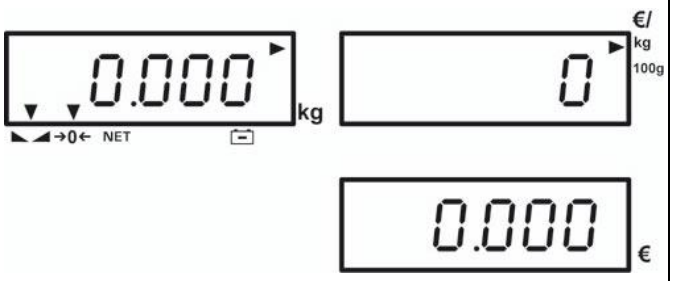
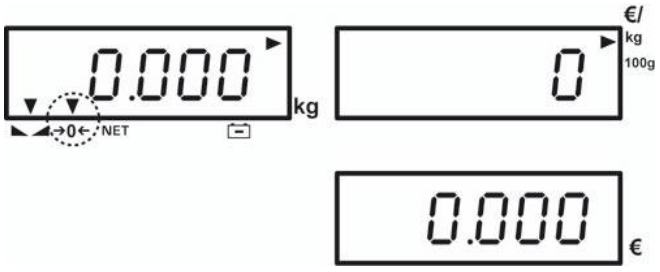
After a verification the balance is sealed at the indicated positions.



1	Self-destroying seal mark
2	Cover of adjustment switch
3	Adjustment switch
4	Self-destroying seal mark

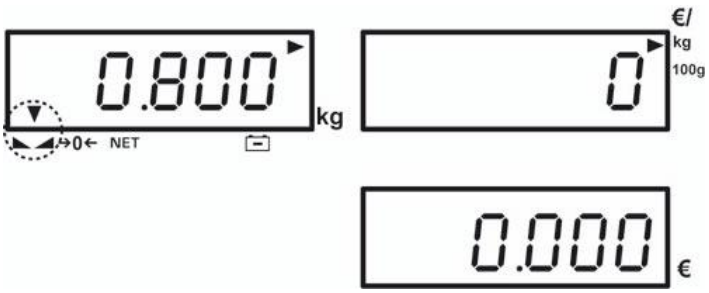
7 Operation

7.1 Switch on/off and set zero

Operation	Display
Switch on balance ⇨ Press ON/OFF The balance will carry out a self-test	As soon as the weight display shows "**0**" in all the display windows your balance is ready to weigh. 
Zeroing If the balance does not display „**0**“, ⇨ press →0←	The zero display and the triangle over the →0← symbol will appear. 
Switch off the balance Press ON/OFF	

English

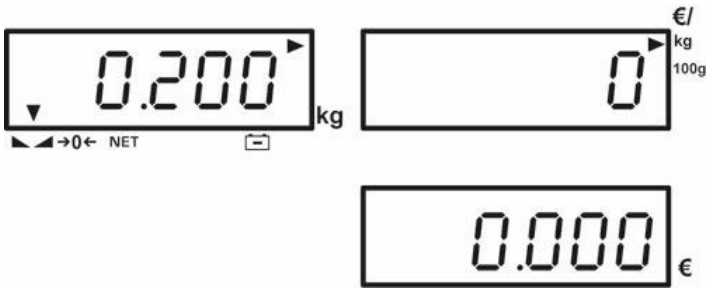
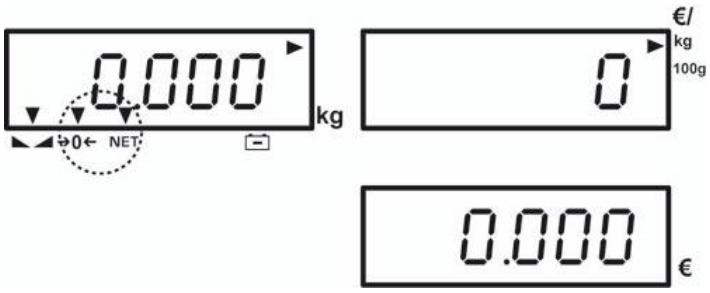
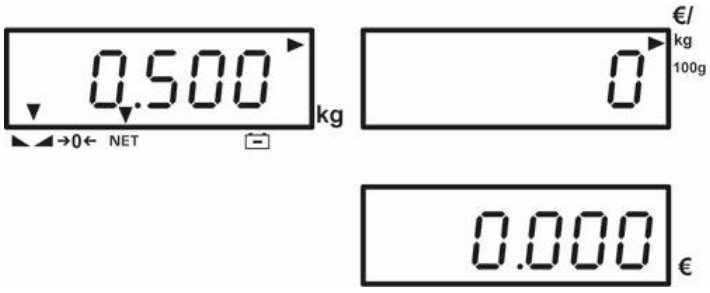
7.2 Simple weighing

Operation	Display
⇨ Place goods onto weighing plate	Read weighing result  If weighing values are stable the triangle will be displayed above the ◣◢ symbol
If the goods are heavier than the weighing range, the display will show "**QL**" (=Overload), and a whistle is sounded.	

English

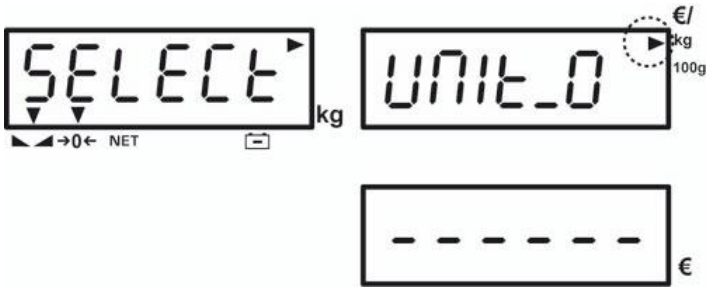
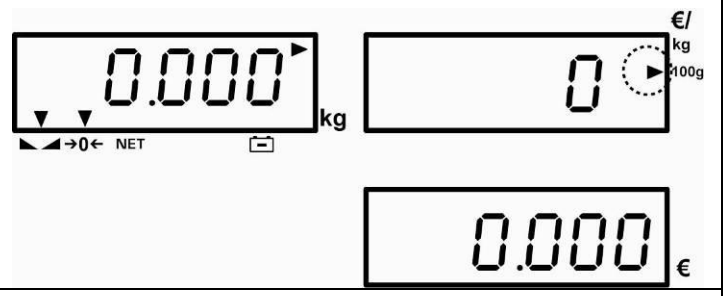
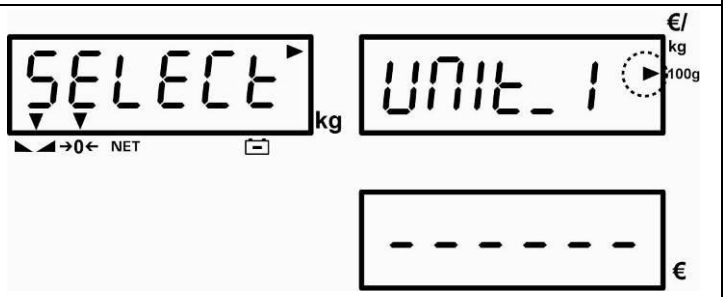
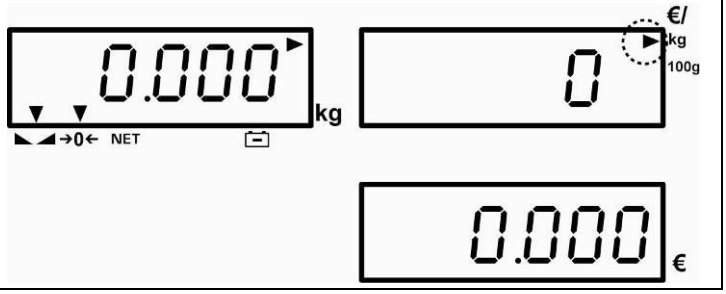
7.3 Weighing with taring

The dead weight of any weighing container may be tared away by pressing a button, so that the following weighings show the net weight of the goods to be weighed.

Operation	Display
⇨ Place empty tare container on the weighing plate. The total weight of the container is displayed.	
Reset display to "**0**": ⇨ Press TARE	 The weight of the container is now internally saved. The triangle will appear above the →0← symbol and the NET symbol.
⇨ Place the goods to be weighed into the tare container.	The weight of the weighing goods is displayed. 

The taring process can be repeated any number of times, e.g. when adding several components for a mixture (adding).

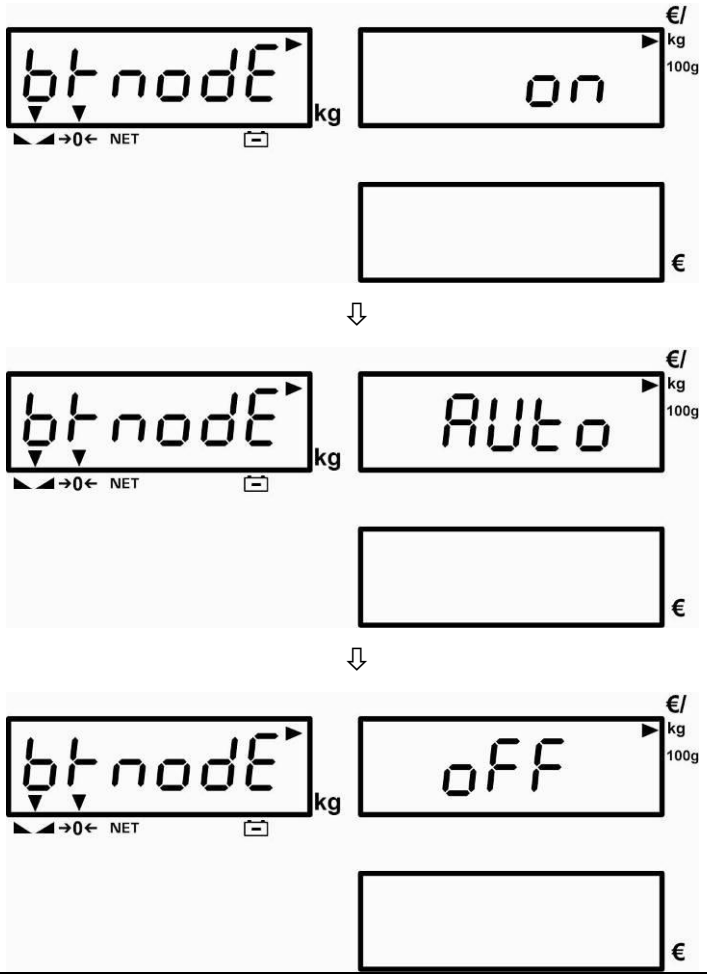
7.4 Weighing units switch-over

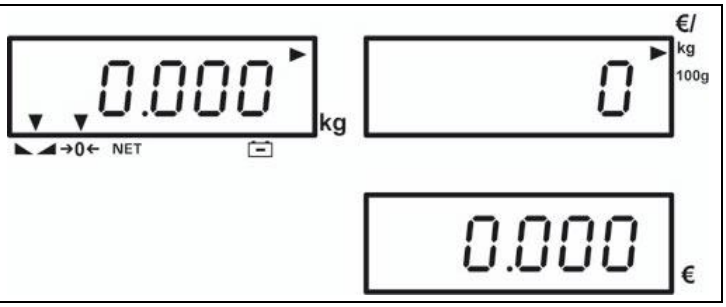
Operation	Display
⇨ Press [.] for approx. 3 sec.	 If „kg“ is selected, press the [1] button, the display changes to the weighing unit „100g“ ⇩ 
	 If „100g“ is selected, press the [0] button, the display changes to the weighing unit kg ⇩ 

7.5 Background illumination

The balance has three background illumination settings:

Auto Automatic background illumination on when weighing pate is loaded
On Switch-on background illumination
Off Background illumination switched-off

Operation	Display
⇨ Press →0← for approx. 3 sec. ⇨ Use 3 to switch between the three settings	

⇨ Use TARE to take over the selected setting, the balance changes into the weighing mode	

An other possibility to adjust the background illumination are the buttons

⇨ 1 (Off)

⇨ 2 (On) and

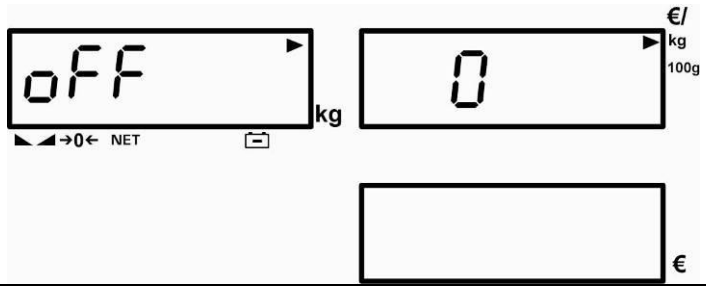
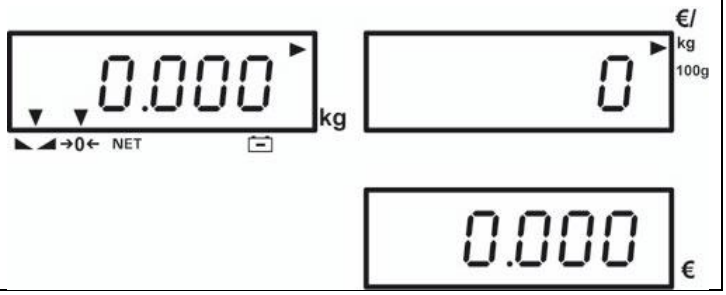
⇨ 3 (Auto).

English

7.6 Auto-Off function

For rechargeable battery operation the balance has an automatic switch-off function which can be activated or deactivated. The following settings are possible:

Of 0 Automatic switch off deactivated
Of 3 Automatic switch off after 3 min
Of 5 Automatic switch off after 5 min
Of 10 Automatic switch off after 10 min
Of 30 Automatic switch off after 30 min

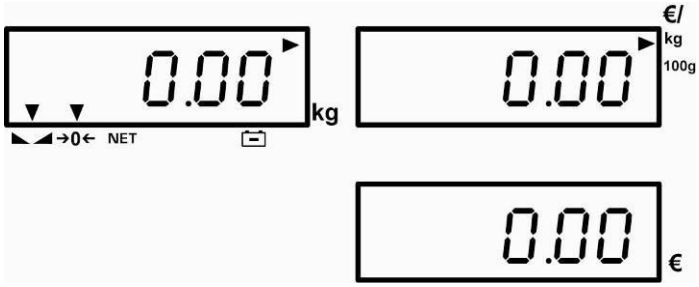
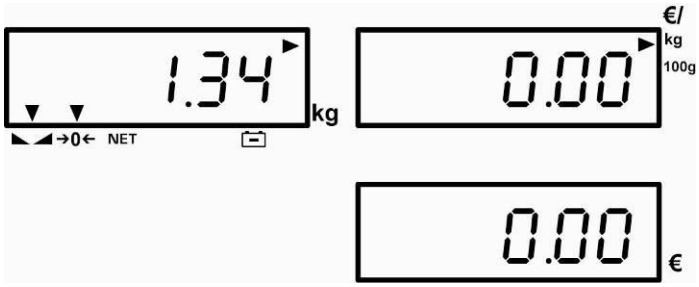
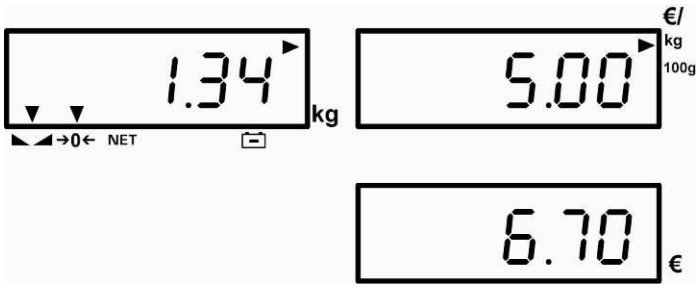
Operation	Display
⇨ Start balance by pressing ON/OFF ⇨ While the balance carries out a self test, press €/%.	
⇨ Use 3 to switch between the single settings	OFF 0 ⇩ OFF 3 ⇩ OFF 5 ⇩ OFF 10 ⇩ OFF 30
⇨ Use TARE to take over the selected setting, the balance changes into the weighing mode	

English

7.7 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.

7.7.1 Manual input of a basic price

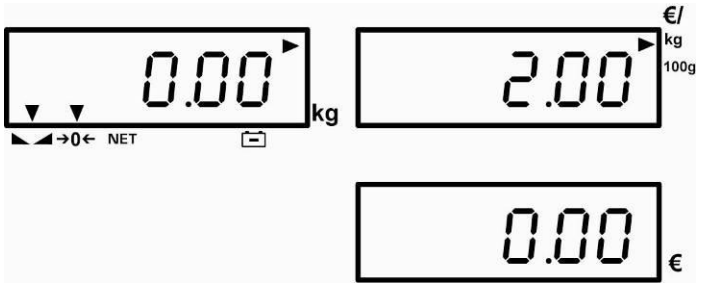
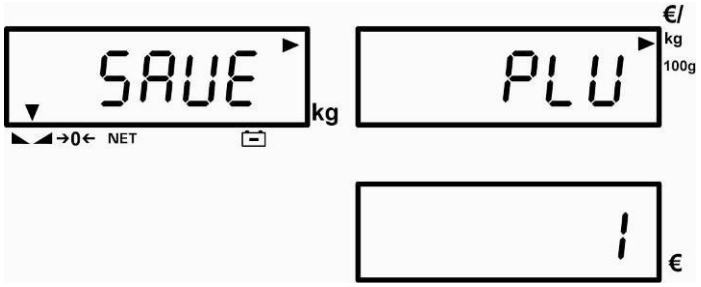
Operation	Display
If you are using a weighing container, tare	 If the balance does not display „**0.00“**, shift the decimal digit (see chap. 8.2 „**F3 PdESC mode**)
Place goods to be weighed on balance.	
Enter basic price via number keys; sales price is automatically calculated	

The displayed basic price can be deleted by C.

7.7.2 Saving and calling up a basic price

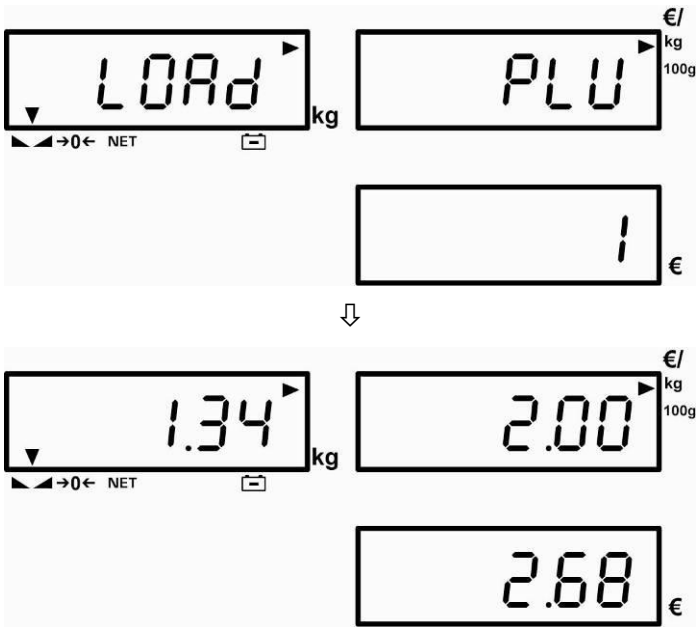
- The balance is able to save up to 4 PLU values as basic price.
- The PLU value may be saved as €/kg or €/100 g.
- The buttons from [1] to [4] are used to save /call up the four PLU values.

Storing a basic price via the PLU buttons:

Operation	Display
⇨ Enter your basic price via keyboard, either in €/kg or in €/100 g	
⇨ Press [1] ~ [4] until a signal sounds, then release Now the basic price is stored under PLU 1 For the other 3 PLUs proceed in the same way	

To modify values saved at a certain PLU position, repeat procedure.

Invoking a basic price via the PLU buttons:

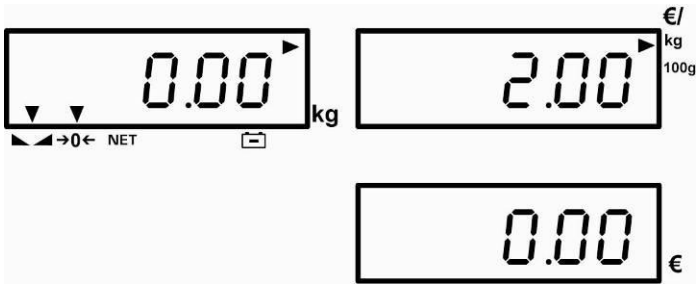
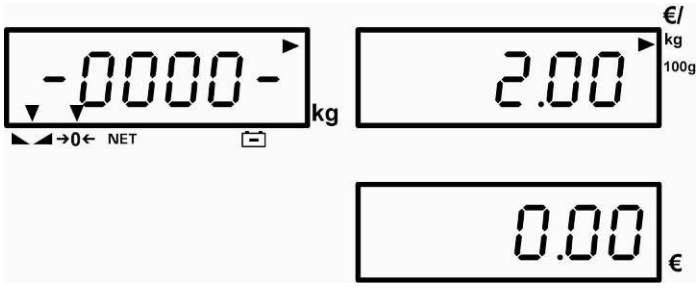
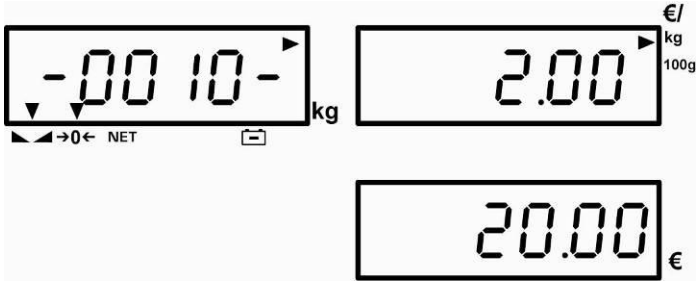
Operation	Display
⇨ Place the material which will be weighed ⇨ Press [1] ~ [4] button „**LOAd PLU 1~4**“ will appear shortly before the balance displays • the weight, • the basic price and • the sales price of the weighed material	

Deleting a PLU value

To delete a stored PLU value as basic price, enter **0.00** and after that press the respective PLU button [1] ~ [4] until a signal sounds, then release.

7.8 Determining the price per number of items

To calculate total price, enter basic price / number of items (pocket calculator function). Weighing of goods is not required.

Operation	Display
⇨ Enter basic price (1 item) via the numeric buttons 1 to 9	 (Example)
⇨ Press €/%	 (Example)
⇨ Enter the number of items via the numeric keyboard The total price is displayed.	 (Example)

⇨ Using €/% the balance returns into the weighing mode

⇨ To delete number of items press C

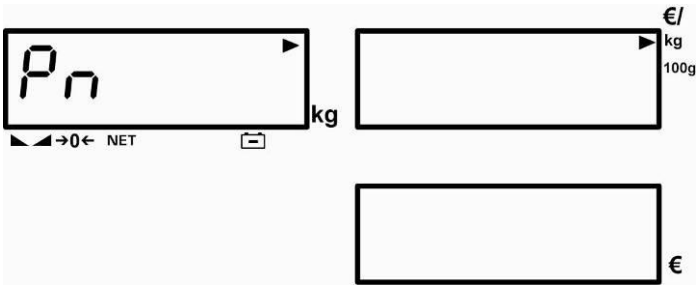
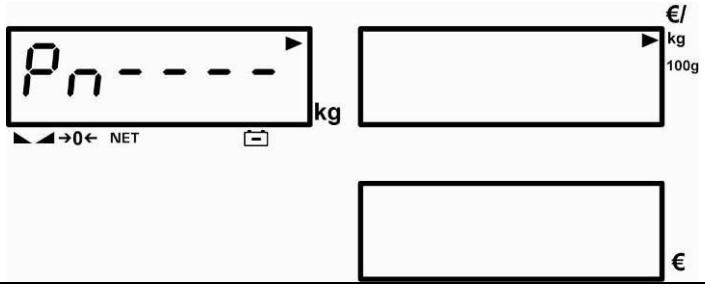
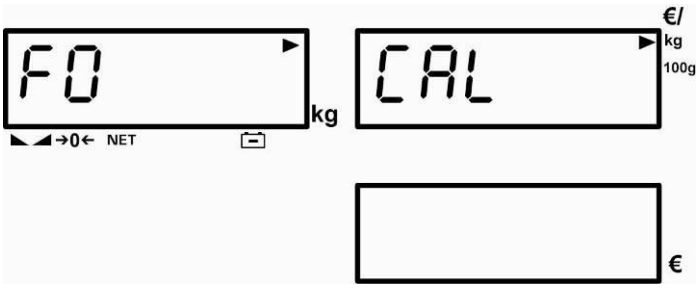
English

8 The menu

In the menu the settings of the balance can be modified and functions can be activated. This way, the balance can be adjusted to individual weighing requirements.
Menu items can be selected to change settings. Moreover there is an other menu item for adjustment.

8.1 Navigation in the menu

Access to menu:

Operation	Display
⇨ Start balance by pressing ON/OFF ⇨ While the balance carries out a self test, press TARE, „**Pn“** appears	
⇨ Enter password „0000“	
⇨ Press adjustment switch on the lower side of the balance (see chap. 6.9.1) ⇨ Press TARE anew, the first menu item „**F0 CAL“** is displayed	

How to select menu items:

With help of 3, the individual menu items can be selected one after the other.

Select menu item:

Use TARE to select the menu item.

Exit menu and return to weighing mode

⇨ Use  to return from the submenu item to the main menu item

⇨ Press  again to exit the menu and to return into weighing mode.

8.2 Menu overview

Menu item	Submenu item	Description
F0 CAL	Adjustment process.	
F1 rES	3 000	Resolution
	6 000	
	dual	
F2 CAP	3 kg	Capacity
	6 kg	
	15 kg	
	30 kg	
F3 PdESC	0	Decimal position weight value
	0.0	
	0.00	
	0.000	
F4 PdESC mode	PriCE dESC FLoAT	Decimal position basic price (Kap. 7.7.1)
	PriCE dESC FIX	
F5 init ZEro	init 2	Automatic zeroing range: 0 / 2 / 4 / 10 / 20

English

F6 rE ZEro	rE 2	Manual zeroing range: 0 / 2 / 4 / 10 / 20 / 50 / 100
F7 trACK Zero	AZn	Track zero range: 0.5 d / 1 d / 2 d / 4 d
F8 SCSiVE tArE	S tArE on	Taring: several times
	S tArE off	Taring: once
F9 P Unit	Unit 2 off	not documented
F10 CoUnt		not documented
F11 SPEEd	SPEEd 7.5	not documented
	SPEEd 15	
	SPEEd 30	
	SPEEd 60	
F12 GrA	Grav	not documented
F13 Pin	P1	Enter the new password
	P2	Enter new password anew
F14 rESEt	back to factory setting	

9 Error messages

Error message	Possible cause	Remedy
Err 4	• System out of zero range during switching-on or by pressing the →0← button	• Unload weighing system and tare again using TARE.
Err 6	• Internal A/D value outside the normal range	• To unload the weighing system • Check connectors

If the error message appears repeatedly, please contact your retailer.

10 Service, maintenance, disposal

10.1 Clean

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

⇨ Keep IP protection (see chap. 6.7).

⇨ 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. Polish with a dry soft cloth.

10.2 Service, maintenance

⇨ The appliance may only be opened by trained service technicians who are authorized by KERN.

⇨ Ensure that the balance is regularly calibrated, see chap. 3.4 Testing instruments control.

10.3 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.

11 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.