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Operating manual
Counting balances

KERN CIB

Version 1.0
2020-09
GB

GB

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Operating manual

Counting balances

English

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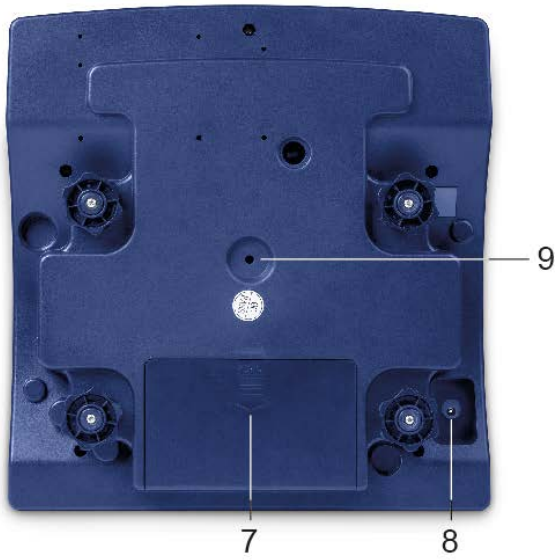
English

1 Technical data

KERN	TCIB 3K-4-A	TCIB 6K-4-A	TCIB 15K-3-A	TCIB 30K-3-A
Readability (d)	0.2 g	0.5 g	1 g	2 g
Weighing range (max)	3 kg	6 kg	15 kg	30 kg
Reproducibility	0.2 g	0.5 g	1 g	2 g
Linearity	± 0.4 g	± 1.0 g	± 2 g	± 4 g
Stabilization time	2 sec.	2 sec.	2 sec.	2 sec.
Recommended adjustment weight, not added (class)	3 kg (M1)	5 kg (M1)	15 kg (M1)	30 kg (M1)
Weighing unit	kg	kg	kg	kg
Smallest part weight for piece counting under lab conditions*	0.1 g	0.2 g	0.5 g	1 g
Smallest part weight for piece counting under normal conditions**	1 g	2 g	5 g	10 g
Heating time (operating temperature)	30 min			
Reference quantity	freely selectable			
Net weight (kg)	4 kg			
Permissible ambient condition	-10° C to 40° C			
Humidity of air	15% - 85% (non-condensing)			
Weighing plate, stainless steel	315 x 215 mm			
Dimensions of the housing (B x D x H)	350 x 330 x 120 mm			
Mains connection	Mains adapter 100-240 V, 50/60 Hz; balance 12 V, 1000 mA			
Rechargeable battery	Without display backlighting Operating duration approx. 160 h / loading time approx. 14 hours			
	With display backlighting: Operating duration approx. 90 h / loading time approx. 14 hours			

English

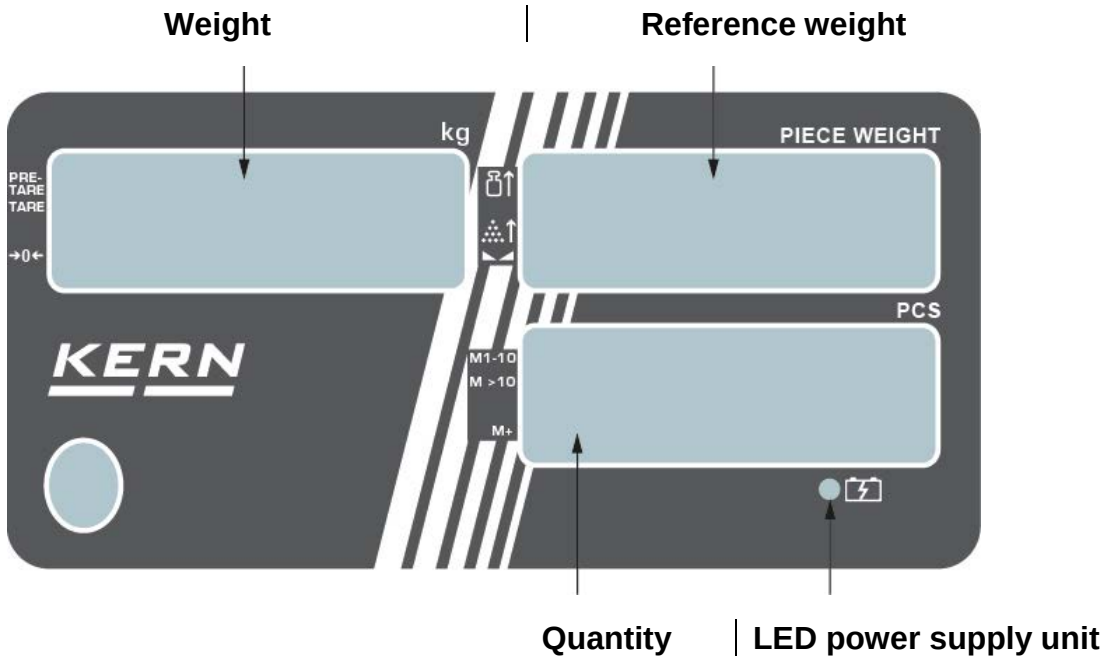
2 Appliance overview



1. Weighing pan 2. Keyboard 3. Display 4. Battery charge status display 5. Bubble level 6. Adjustment feet	7. Battery compartment 8. Mains connection 9. Adjustment switch

English

2.1 Overview of displays



English

2.1.1 Display weight

Here, the weight of your goods is displayed.

The overlay ◀ indicates:

PRE- TARE	Tare value in memory
TARE	placed weighing good tared
→0←	Zeroing display

2.1.2 Display reference weight

The reference weight of a sample is shown here. This value is either entered by user or calculated by the balance.

The overlay ◀ indicates:

	Placed reference weight insufficient for reference calculation
	Placed number of pieces insufficient for reference calculation/
	Stability display

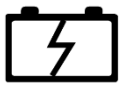
2.1.3 Display piece quantity

Here, all the parts placed on balance are immediately displayed by number.

The overlay ◀ indicates:

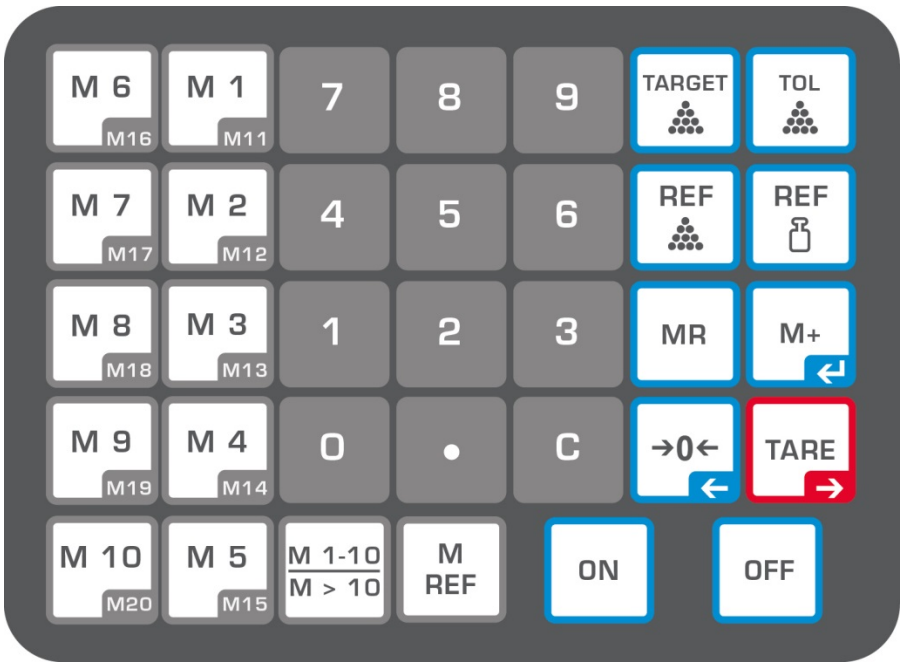
M1-10	Memory locations 01-10
M>10	Memory locations 11-20
M+	Data in sum memory

2.1.4 Power supply unit display

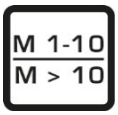
	**green**	If the LED next to this symbol glows green, the power supply unit is correctly connected and the rechargeable battery is being charged.

English

2.2 Keyboard overview



English

Selection	Function
	Quick buttons memory locations 1-20
	Changeover button between quick buttons 1-10 and 11-20
	▪ Addition in sum memory ▪ Call up sum memory
	Turn on or off the balance
	Numeric keys
	Decimal point
	▪ Deleting key ▪ Return to weighing mode
	Call up counting with target weight
	Call up counting with tolerance control
	▪ Enter reference weight through weighing ▪ Display reference weight stored last
	▪ Store reference weights in memory ▪ Call up stored reference weights
	Call up sum memory

English

	▪ Addition in sum memory ▪ Call up sum memory
	**In menu: Confirm selected setting**
	▪ Zeroing key
	**In menu: Scroll up** Decimal digit: To left
	Taring key
	**In menu: Scroll down** Decimal digit: to right

English

3 Basic Information (General)

3.1 Utilisation in accordance with specification

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 pan. 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 add-on weighing procedures, if small amounts of goods to be weighed are removed or added. The “stability compensation“ installed in the balance may result in displaying an incorrect measuring value! (Example: Slowly draining fluids from a container on the balance.)
- Do not leave permanent load on the weighing pan. 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 applications
- The appliance is modified or opened
- Mechanical damage or damage by media, liquids, natural wear and tear
- Improper setup or incorrect electrical connection
- 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 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.

On the installation site observe the following:

- 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 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 approx. 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.

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.

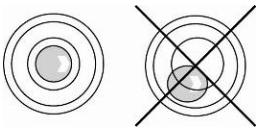
6.2 Unpacking, Scope of delivery

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

Scope of delivery / serial accessories

- Balance
- Weighing plate
- Mains adapter
- Protective cover
- Internal battery
- Operating manual

6.2.1 Placing



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

⇨ Check levelling regularly.

6.3 Mains connection

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

If the LED next to this power supply unit symbol glows green, the power supply unit is connected correctly.

6.4 Rechargeable battery operation

The optionally supplied battery is charged with the supplied power supply.
Before the first use, the rechargeable battery should be charged by connecting it to the mains power supply for at least 14 hours. The rechargeable battery has a service life of approx. 160 hours without background illumination or 90 hours with background illumination. Charging time until complete recharging is approx. 14 h. The appearance of the battery symbol in the weight display indicates that the rechargeable battery is almost exhausted. If no load is placed during the red LED display, the balance will switch off automatically after about 20-30 minutes. Connect the mains adapter as soon as possible to charge the rechargeable battery.

- The appearance of the battery symbol in the weight display indicates that the rechargeable battery is soon exhausted. Charge the battery with the help of the supplied power pack.

is displayed	Rechargeable battery capacity below **5.6 V**
flashing	Rechargeable battery capacity below **5.5 V**
The balance switches off automatically if the rechargeable battery capacity is below **5.4 V**	

6.5 Initial Commissioning

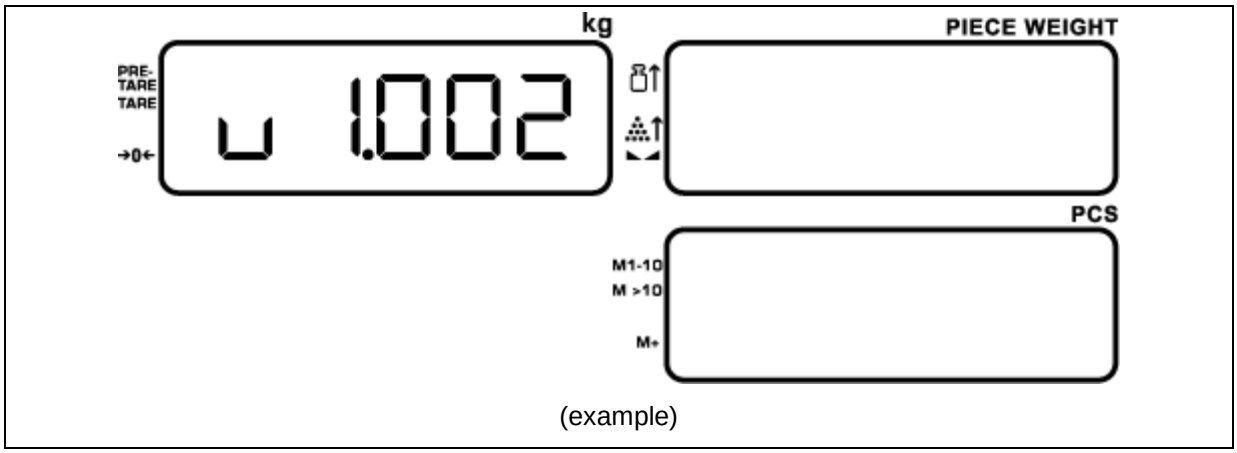
In order to obtain exact results with the electronic balances, your balance must have reached the operating temperature (see warming up time chap.1). During this warming up time the balance must be connected to the power supply (mains, accumulator or battery).

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

6.5.1 Start-up

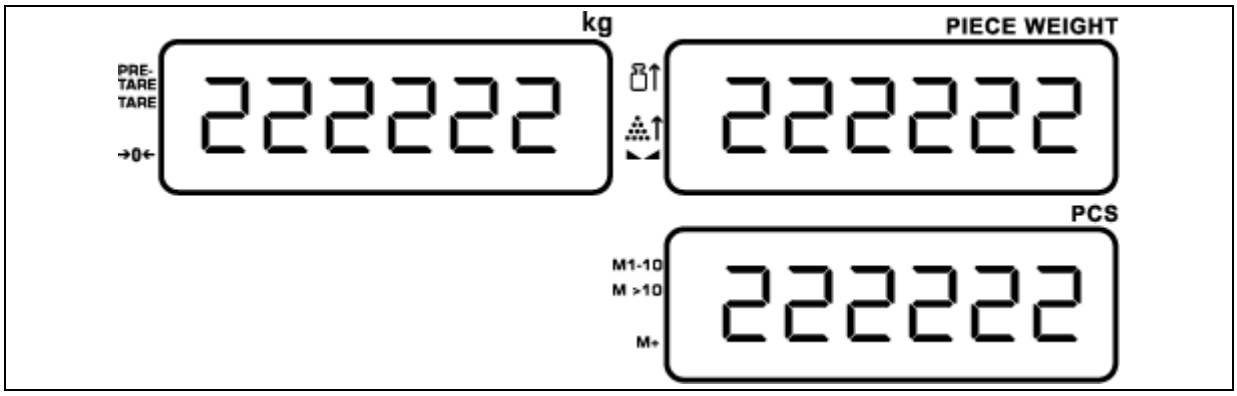
Start balance by pressing ON.

After switch-on, the software version will appear shortly:

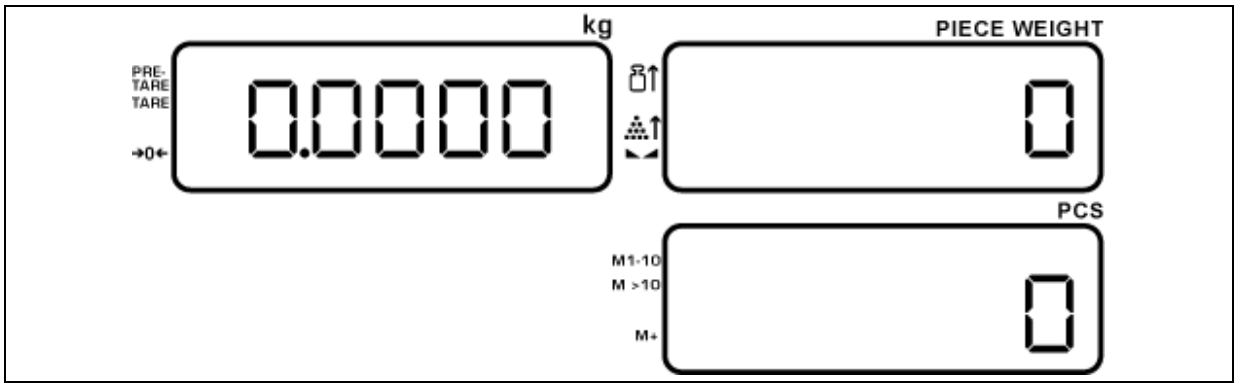


(example)

Afterwards the balance will carry out a segment test:



After that the balance will change automatically into the weighing mode, the zero display appears in all three display windows and the balance is now ready for operation:



i	If M+ is pressed longtime during the segment test, the software date will appear. Example: 2020-04-01.

English

6.5.2 Switch Off

Switch off balance using OFF.

6.5.3 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 →0← symbol on the display.

6.5.4 Stability display

If in the display next to the symbol a triangle ◀ appears, the balance is in a stable status. If the status is instable the ◀ display disappears.

6.6 Adjustment

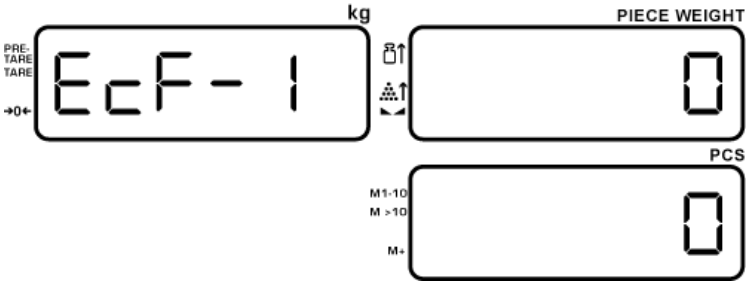
As the acceleration value due to gravity is not the same at every location on earth, each balance must be coordinated - in compliance with the underlying physical weighing principle - to the existing acceleration due to gravity at its place of location (only if the balance has not already been adjusted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

- Prepare adjustment weight, see chap. 1.
  The adjustment weight you use is dependent on the capacity of the balance. Perform adjustment as close as possible to the maximum load. Info about test weights can be found on the Internet at: http://www.kern-sohn.com
- Observe stable environmental conditions. A warm up time (see chapter 1) is required for stabilization.

6.6.1 Adjustment menu

In order to adjust the balance, default settings have to be carried out in the adjustment menu.

Navigation in the adjustment menu:

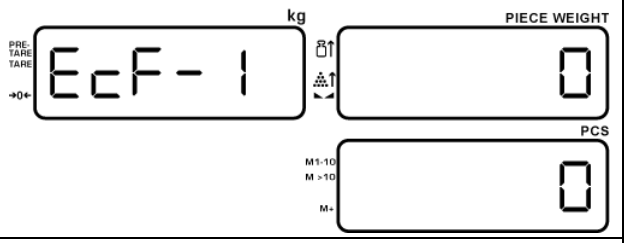
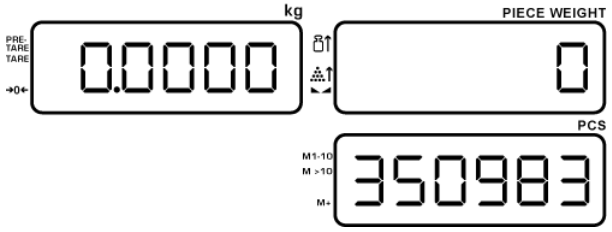
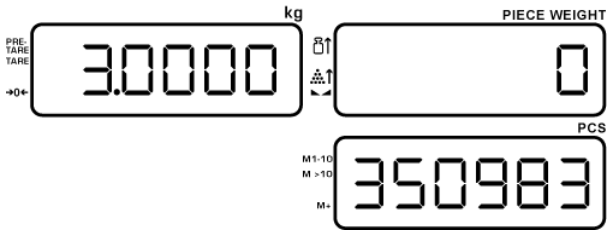
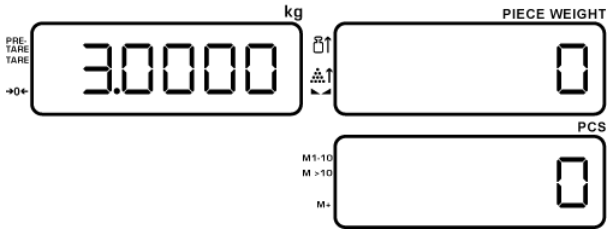
<table>
<tr>
<td>Call up menu
 
</td>
<td>In weighing mode keep →0← pressed and also press M+. The first menu item ECF-1 is displayed.</td>
</tr>
<tr>
<td colspan="2">Select menu block
• Use →0← to return to previous menu item
• Use TARE to advance to next menu item</td>
</tr>
<tr>
<td colspan="2">Set parameter
With numeric keys 0 to 9</td>
</tr>
<tr>
<td colspan="2">Confirm setting
⇨ Press M+</td>
</tr>
<tr>
<td colspan="2">Return to weighing mode/ exit function without saving
⇨ Press C.</td>
</tr>
</table>

Menu overview adjustment menu

Menu item	Description of function
ECF-1	Adjustment weight
ECF-2	Zero point adjustment
ECF-3	Adjustment weight and AD converter value

Procedure when adjusting:
Observe stable environmental conditions. A warming up time (see chapter 1) is required for stabilization. Ensure that there are no objects on the weighing plate.

How to carry out adjustments
Ensure that there are no objects on the weighing pan.

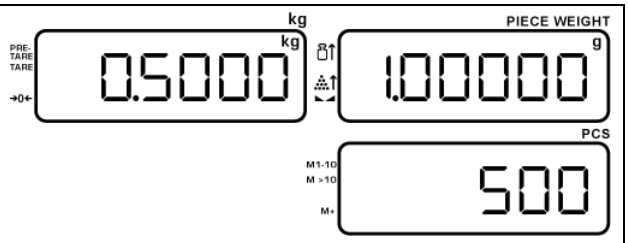
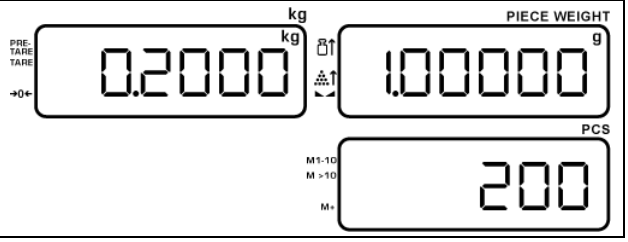
In weighing mode keep →0← pressed and at the same time press M+. The first menu item “ECF-1” is displayed.	
Press M+, in the PCS-window the AD converter value appears. 0.0 g is displayed	
Press M+ anew. The weight display flashes. Use the numeric keys 0 to 9 for entering the value of the required adjustment weight.	 (example)
Place an adjustment weight of the corresponding size on the weighing plate and press M+ to finish the adjustment process. The balance changes then automatically into weighing mode.	

* The adjustment should be made with the recommended adjustment weight (see chap. 1 "Technical data"). Weights of different nominal values may also be used for adjustment but are not optimal for technical measuring.
Info about adjustment weights can be found on the Internet at: http://www.kern-sohn.com

7 Piece counting

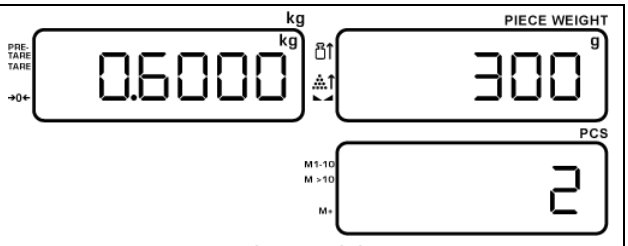
With piece counting you can either count parts into a container or remove parts from a container. To count a greater number of parts, the average weight per part has to be determined with a small quantity (reference quantity). The larger the reference quantity, the higher the counting exactness. High reference must be selected for small parts or parts with considerably different sizes.

7.1 Determination of the reference weight by weighing

Set balance to zero and tare, as required. Place a known number of single parts on the balance as reference weight. If the balance is stable, enter the quantity of the placed parts on the numeric keyboard. The input is shown in the reference weight window; press REF, the total weight of the parts, the piece weight and the number of parts are displayed.	 (example)
Unload the weighing plate and place the parts to be counted on the weighing plate. The weight of all parts, the piece weight and the number of parts are displayed.	

English

7.2 Numeric input of the reference weight

Unload the balance, enter the reference weight via the numeric keyboard and confirm by REF. Now place the parts to be counted on the weighing plate. All piece quantity parameters are displayed.	 (example)

7.3 Delete reference weight

Unload the weighing plate and press C, the reference weight is deleted.

7.4 Automatic reference optimization

If it was impossible to determine a reference due to instable goods to be weighed or an insufficient reference weight, the [◀] display will appear in the reference weight window during reference calculation.

The overlay ◀ indicates:

	Placed number of pieces insufficient for reference calculation < 40 d
	Placed reference weight insufficient for reference calculation < 4/5 d

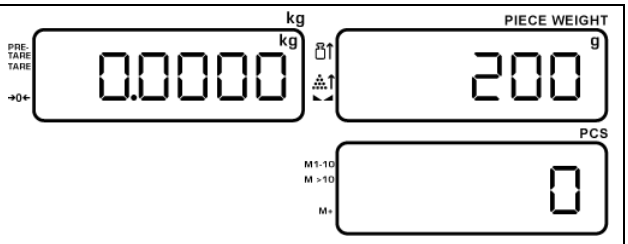
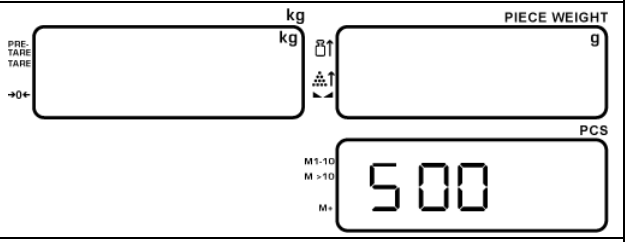
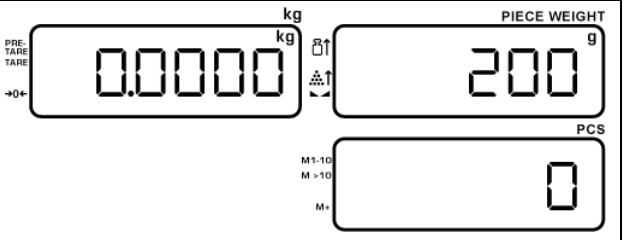
Add additional parts now until the [◀] display disappears.
An audio signal indicates that reference optimization has been carried out.
At every reference optimisation, the reference weight is calculated anew. As the additional parts increase the base for the calculation, the reference also becomes more exact.

English

7.5 Store/call up reference weight

50 memory locations (+ 20 quick memory locations) are available.

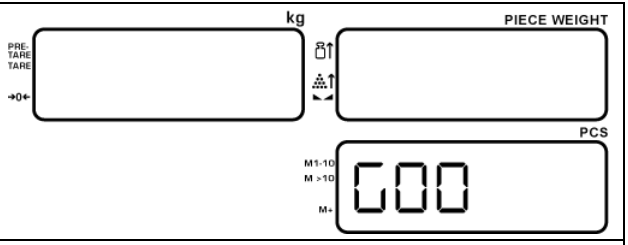
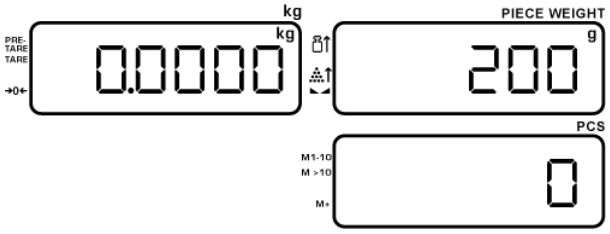
7.5.1 Save via numeric keyboard

Unload the weighing plate and enter the reference weight via the numeric keyboard. Then press longtime the button M+.	 (example)
Then press longtime the button M REF. „S 00“ is displayed flashing.	
Enter the desired memory location via the numeric keyboard and confirm by M+. The memory location has now been allocated by the reference weight, the balance is in weighing mode.	

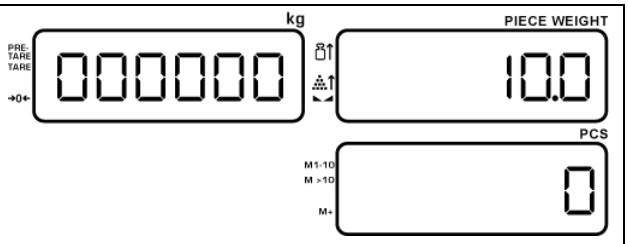
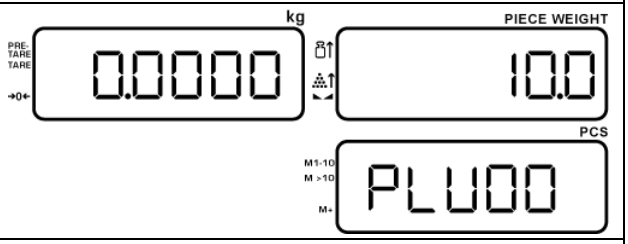
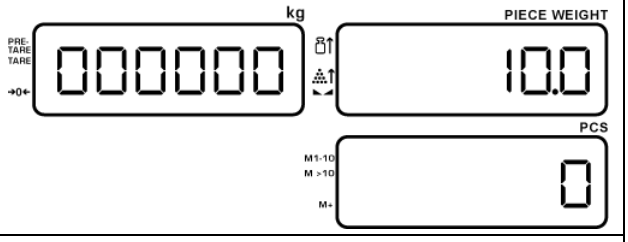
English

7.5.2 Call up via numeric keyboard

When the reference weight is required at a later point in time it can be called by pressing the M REF key and entering the relevant memory location number.

Unload the weighing plate and press longtime the button M 1-10 / M > 10. „G00“ is displayed flashing.	
Use the numeric keys to enter the memory location and confirm by pressing M+. The reference weight stored in this memory location appears. The balance is in weighing mode and now you can count with this reference weight.	

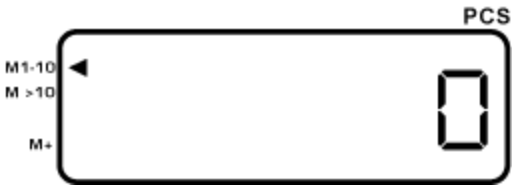
7.5.3 Save via quick keyboard

Unload the weighing plate and enter the reference weight via the numeric keyboard.	 (example)
After that press M+, followed by M REF. „PLU 00“ is displayed.	
Then press the desired quick button.	
The reference weight is now stored in this button.	

English

Use 

to change over between the memory locations 1-10 and 11-20. In the piece quantity window the [◀] display shows which memory place group has been selected at the moment:



7.5.4 Call up via quick keyboard

Unload the weighing plate and press the respective quick button, the stored reference weight is displayed. Now it is possible to count.

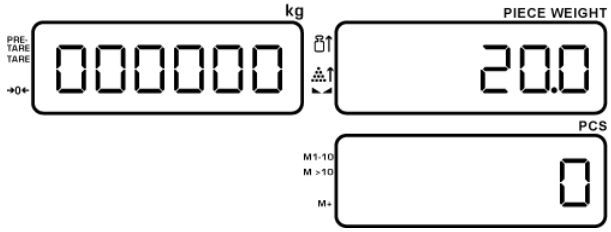
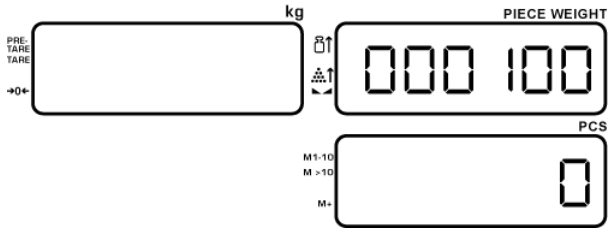
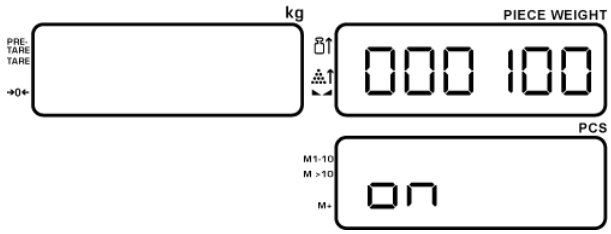
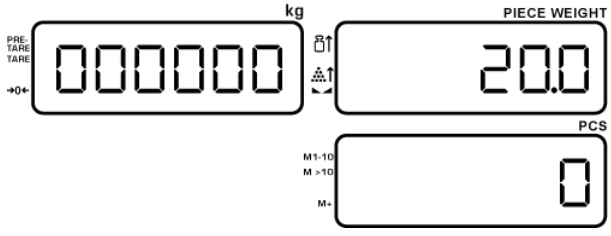
English

7.6 Counting with target piece number

This function can be used to program a target number of pieces. Reaching the target value is now supported by an optical and an acoustic signal:

Target value	Optical signal	Audio signal
Placed piece number less than target value	Display background illumination lights yellow	Slow beeping
The placed piece number corresponds to the target value	Display background illumination lights green	No beeping
Placed piece number over target value	Display background illumination lights red	Fast beeping

7.6.1 Set target piece number

First determine the piece weight as specified in chap. 7.1 or 7.2.	 (example)
Press TARGET and enter target piece number via the numeric keyboard.	 (example)
Acknowledge with M+. „On“ is shortly displayed, the function is enabled.	
The balance changes automatically into target piece counting mode.	 (example)

Count-in the parts, when display green and no signal sounds, the target piece number is reached.

Delete tolerance value:

⇨ In weighing mode press TARGET, enter „000000“ and confirm by M+.

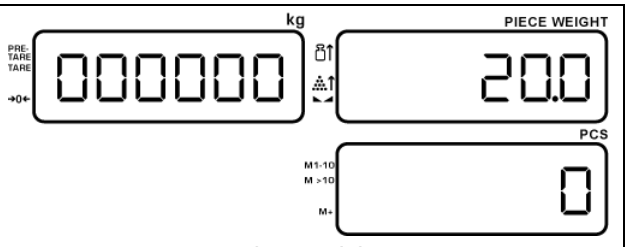
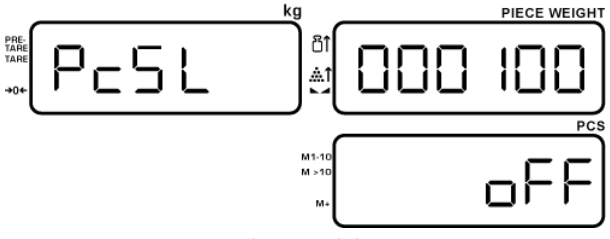
7.7 Count with tolerance control - Fill to target

This function allows count-in parts within a tolerance determined beforehand.
Reaching the target value is now supported by an optical and an acoustic signal:

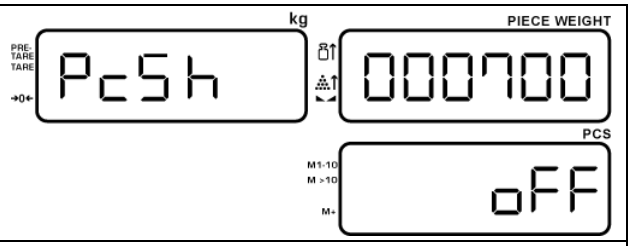
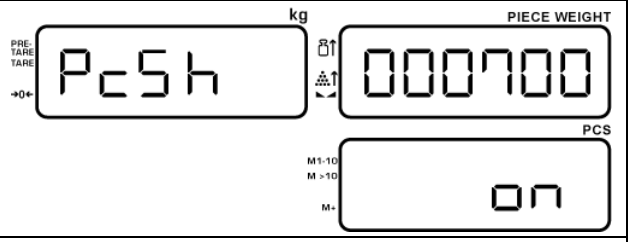
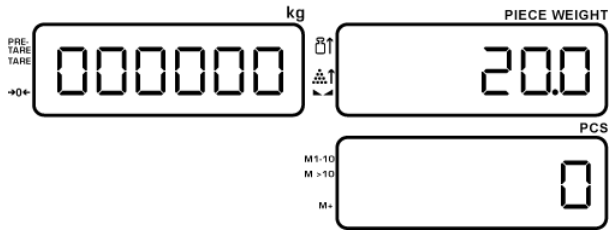
Target value	Optical signal	Audio signal
Placed piece number below tolerance	Display background illumination lights yellow	Slow beeping
Placed piece number within tolerance	Display background illumination lights green	No beeping
Placed piece number above tolerance	Display background illumination lights red	Fast beeping

7.7.1 Enter tolerance range

i	**Note:** If a target value has been determined before by the TARGET button, this value must be deleted first: Press TARGET, enter „000000“ and confirm by M+.

First determine the piece weight as specified in chap. 7.1 or 7.2.	 (example)
Press TARGET longtime, the display for entering the lower limit value „PCS L“ appears. Enter the lower limit value and confirm with M+	 (example)

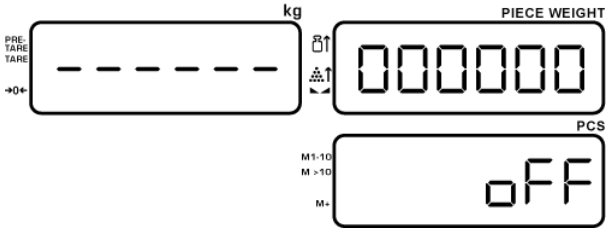
English

The balance changes automatically to the prompt for entering the upper limit value. Enter upper limit value and confirm with M+.	
„on“ is displayed shortly.	
The balance changes automatically into tolerance weighing mode.	 (example)

Count-in parts; when the piece number is within the tolerance range, the display background illumination changes to green.

Note:

If in the display appears:



a wrong input was entered.

Finish the input by C and enter the values anew.

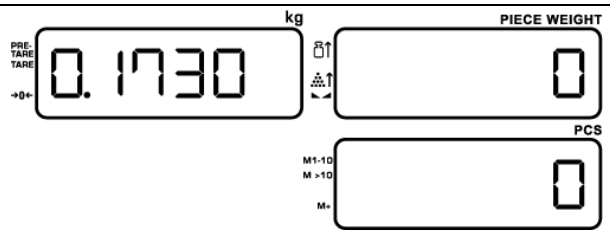
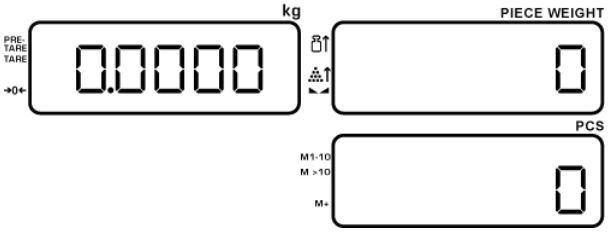
Delete tolerance value:

⇨ In weighing mode press TARGET, enter „000000“ and confirm by M+.

8 Taring

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

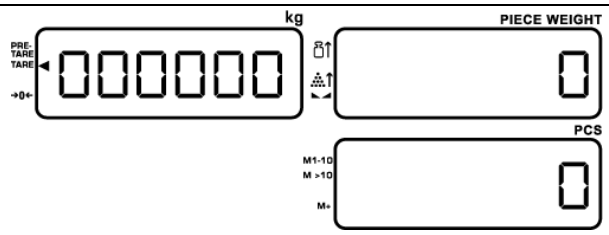
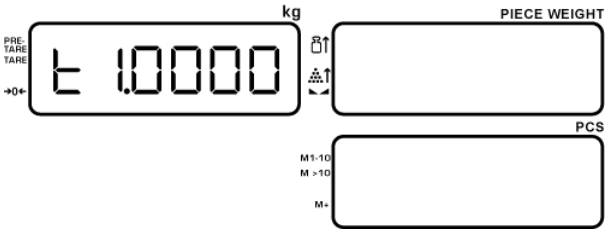
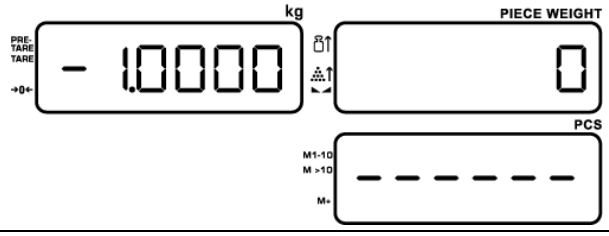
8.1 Determination of the tare weight by weighing

Place empty tare container on the weighing plate. The total weight of the container is displayed.	 (example)
Press TARE After dead stop control was carried out, the display is reset to "0". The weight of the container is now internally saved. The zero display and the arrow next to the **TARE** symbol are displayed.	
Fill weighing goods into the container and read the weight.	

ℹ	• When the balance is unloaded the saved taring value is displayed with negative sign. • To delete the stored tare value, unload the weighing plate and then press the TARE key; the [◀] display next to the **TARE** symbol disappears. • The taring process can be repeated any number of times. The limit is reached when the whole weighing range is exhausted.

English

8.2 Numerical input of tare weight (PRE-TARE)

Ensure that there are no loads on the weighing plate.	
Press TARE and use the numeric keys 0 to 9 for entering the pre-tare value and confirm by TARE.	
The tare weight is displayed as negative value.	
Now you can weigh into the container, the tare weight will automatically be deducted.	

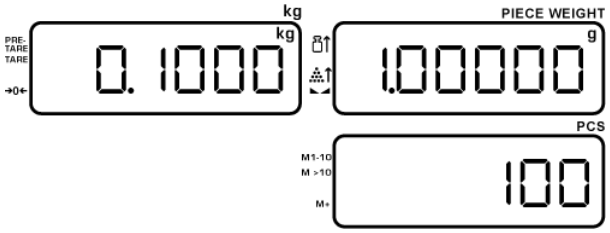
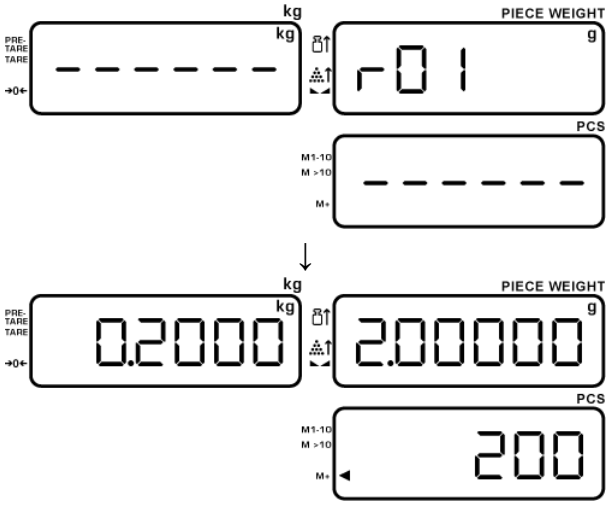
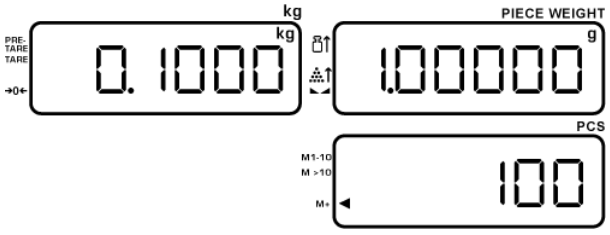
i	• To delete the pre-tare value with unloaded weighing plate, press TARE

English

9 Totalization

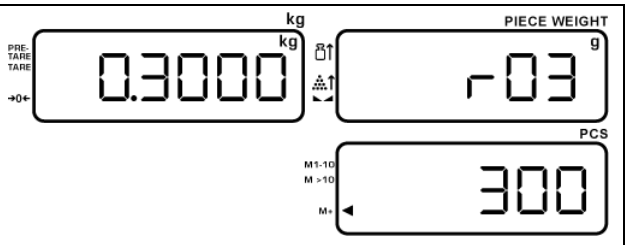
The balance is equipped with a sum memory used for adding up of identical counted parts to total quantity and total weight.

9.1 Add up “Number of parts"

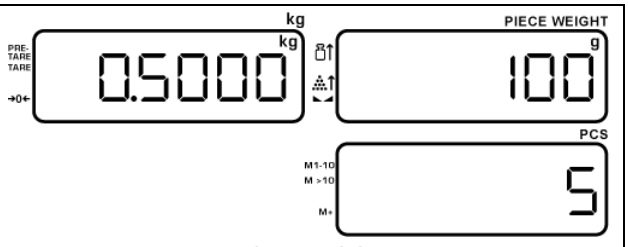
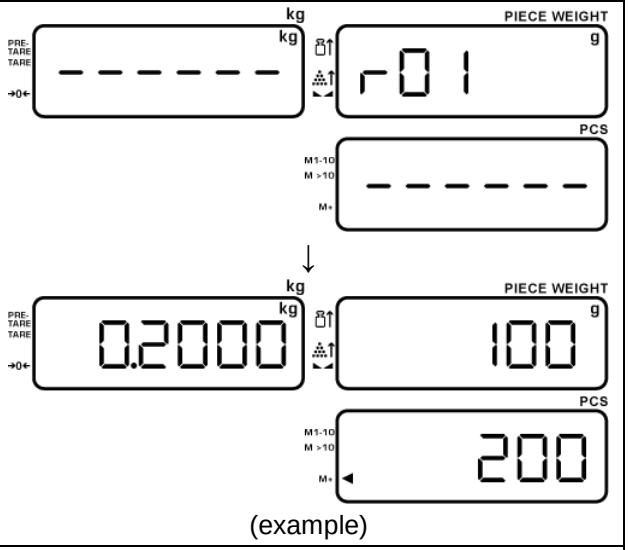
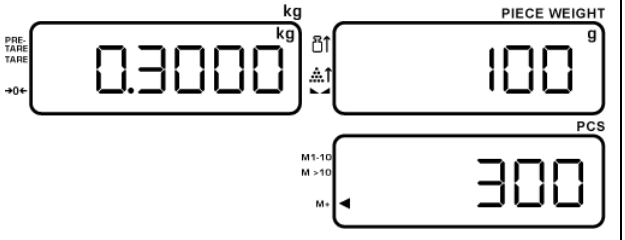
Place a reference weight which should correspond to a certain number of parts and enter the number of parts via the numeric keys [0] to [9] and confirm with [REF].	 (example)
The reference weight, the piece weight and the number of parts are displayed.	
Remove the reference weight and for the first totalization place a number of parts and press [M+]. „r01“ is shortly displayed, followed by the weight, the piece weight and the number of parts. The [◀] display next to "**M+"** indicates the stored value.	 (example)
Remove the parts and place the parts of the second count, then press [M+]. „r02“ is shortly displayed, followed by the weight, the piece weight and the number of parts of the second weighing.	 (example)
Weigh-in more parts as specified. Please note that the balance must be unloaded between the individual weighing procedures. This process can be repeated up to 99 times or until the weighing range of the balance is exhausted.	

English

Display of the saved weighing data:

Unload the balance and press MR. Total weight, number of weighing procedures as well as total parts quantity appear for 3 sec.	

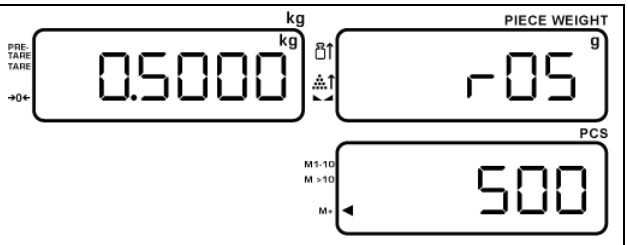
9.2 Add up “weight"

Place any number of parts and enter the piece weight using numeric keys 0 to 9, then confirm by REF. The total weight, the piece weight and the number of parts are displayed.	 (example)
Unload the weighing plate, place the weighing good for the first weighing and press M+. „r01“ is shortly displayed, followed by the weight, the piece weight and the number of parts. The [◀] display next to "**M+"** indicates the stored value.	 (example)
Remove the weighing good and place the weighing good of the second count and press M+. „r02“ is shortly displayed, followed by the weight, the piece weight and the number of parts of the second weighing.	

English

If needed, weigh-in more weighings as specified. Ensure that the balance is unloaded between the weighing procedures.
This process can be repeated up to 99 times or until the weighing range of the balance is exhausted.

Display of the saved weighing data:

Unload the balance and press MR. Total weight, number of weighing procedures as well as total parts quantity appear for 3 sec.	

9.3 Delete stored values

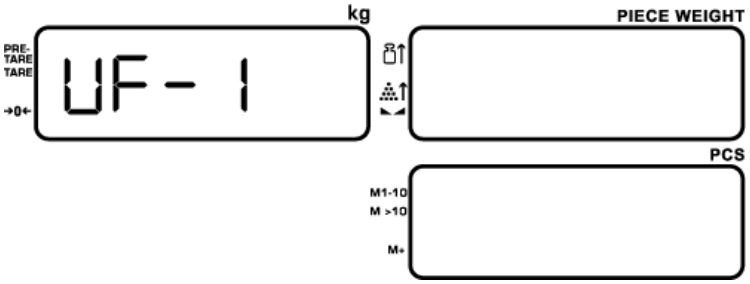
To delete the stored weighing data press MR and keep it pressed until a signal sounds two times. Stored values, total weight, total number of pieces and number of weighings will be set to zero.
The [◀] display next to "**M+**" disappears.

English

10 Menu

To adjust the balance to individual requirements, use the menu to change settings for the balance

10.1 Navigation in the menu

<table>
<tr><td>Call up menu
 
</td><td>Press TARE and M+ in weighing mode.
The first menu item UF1 (internal value or current volt number of the battery/rechargeable battery) is displayed.</td></tr>
<tr><td colspan="2">Select menu block
• Use →0← to return to previous menu item
• Use TARE to advance to next menu item</td></tr>
<tr><td colspan="2">Set parameter
• With numeric keys 0 to 9</td></tr>
<tr><td colspan="2">Confirm setting
⇨ Press M+</td></tr>
<tr><td colspan="2">Return to weighing mode/ exit function without saving
⇨ Press C.</td></tr>
</table>

English

10.2 Menu overview functions menu „UF 1-10“

Menu item	Submenu	Description of function
UF-1 Internal value/ Battery capacity	864650	Internal value
	bat. 6.4	Shows the current volt number of the battery
	350994	Internal value
UF-2 Average piece weight		Average piece weight for reference optimisation
	AavG 1	On
	AavG 2	Off
UF-3 Auto-Off	AoFF00	• AoFF00 is defined as default • Values of 0-99 can be entered (in minutes) • Value 00 - Auto off switched off
UF-4 Background illumination	Lit 0	Background illumination automatic
	Lit 1	Background illumination on:
	Lit 2	Background illumination off
UF-5 Settings of totalizing function	„A“ first value:	
	0	Stability must be displayed
	1	Stability needs not to be displayed
	„B“ second value:	
	0	The zero throughput must take place to carry out the next totalizing
	1	The zero throughput needs not to take place to carry out the next totalizing
UF-6 RS232 interface		No interface available
UF-7 A/D Update Rate	Speed 1	Speed can be set from 1 to 3 (1 = slow (7.5hz), 2 = medium (15hz), 3 = fast (30hz)
	Speed 2	
	Speed 3	

English

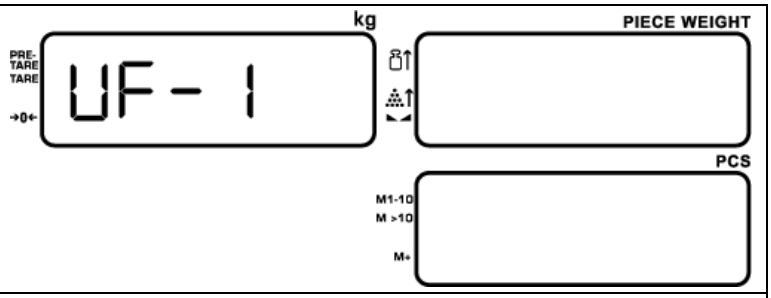
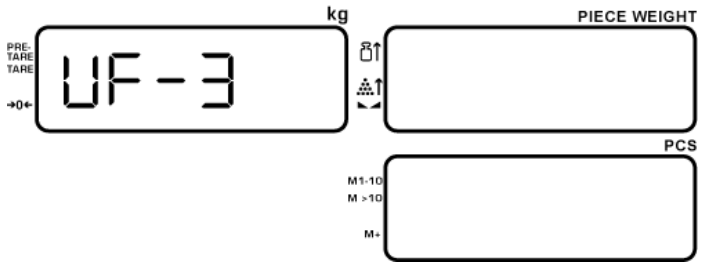
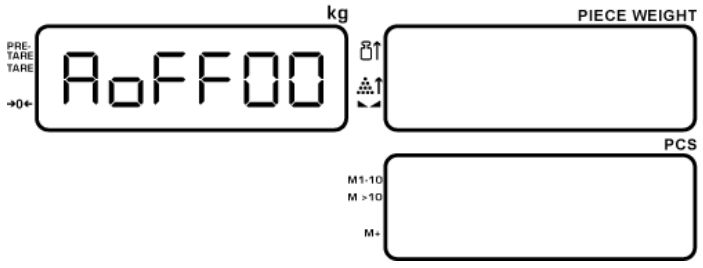
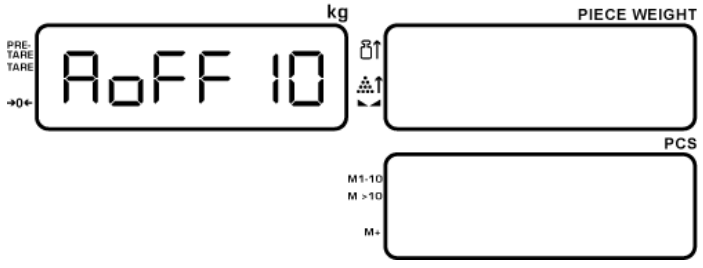
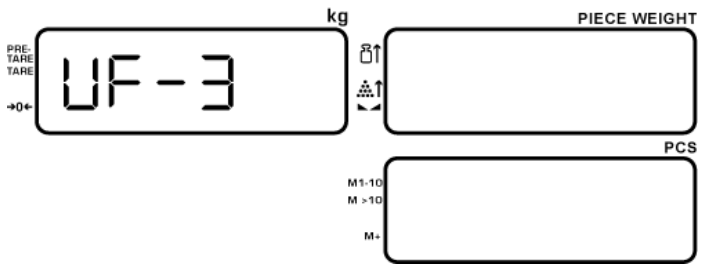
UF-8	ZP 0	Not documented
	ZP 1	
	ZP 2	
	ZP 3	
	ZP 4	
	ZP 5	
UF-9 Gravitation		Function blocked. Operate the adjustment switch to adapt the value.
UF-10		Not documented

English

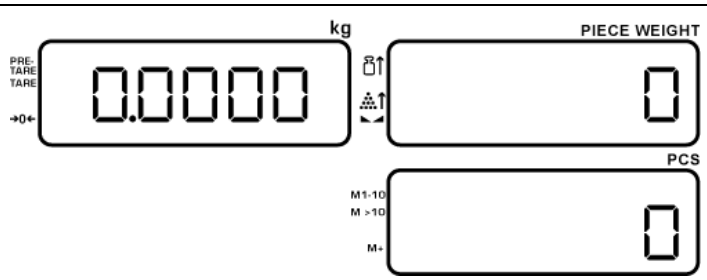
11 Operation

11.1 Automatic switch-off function – UF-3

Here can be set the number of minutes, after which the balance is automatically switched off. Values of 0-99 can be entered.
The automatic switch-off function can be set as follows:

Press TARE and M+ in weighing mode. “UF -1“ is displayed.	
Press TARE repeatedly until „UF-3“ is displayed.	
Press M+, „AoFF00“ will appear flashing.	
Use the numeric keyboard to set the number of minutes after which the display is automatically switched off. Here as example 10 minutes.	 (example)
Confirm input with M+, the balance automatically returns to the menu.	

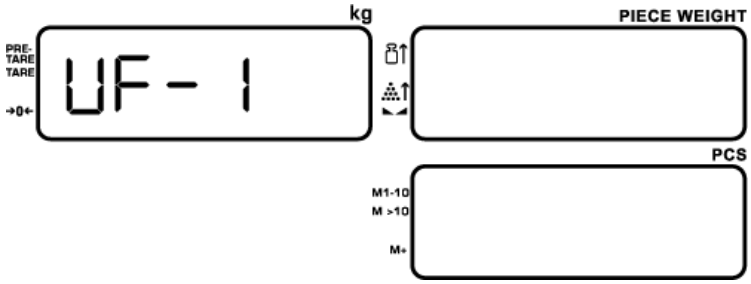
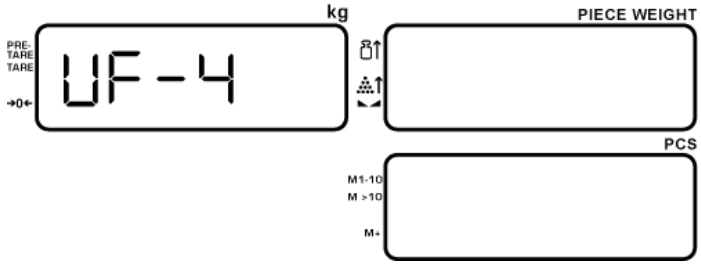
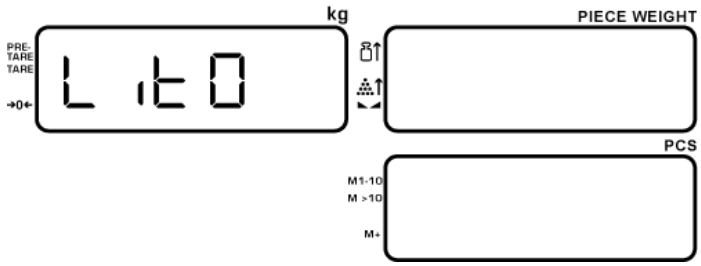
English

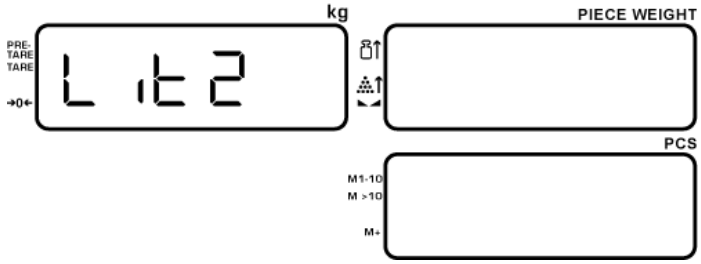
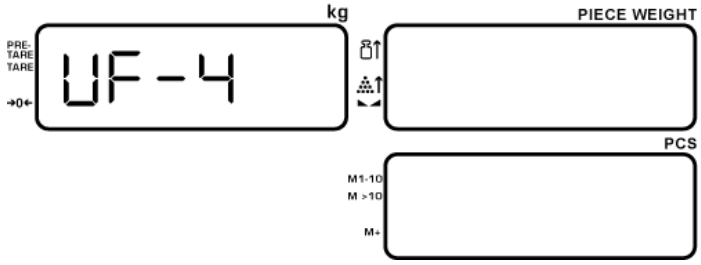
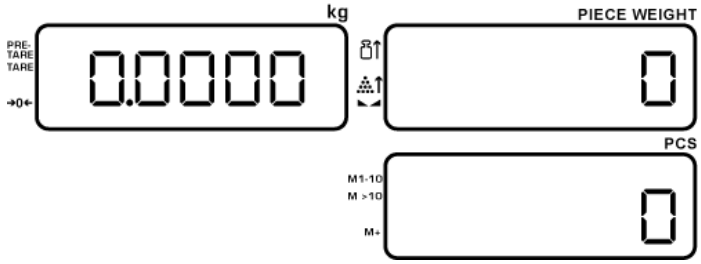
Return to weighing mode using C	

i	When entering „AoFF00“, the automatic switch-off function is disabled.

11.2 Background illumination of display – UF-4

The back light for the display can be adjusted as follows:

Press TARE and M+ in weighing mode. “UF -1“ is displayed.	
Press TARE repeatedly until „UF-4“ is displayed.	
Press M+, „Lit **0**“ is displayed flashing.	
Now the following settings can be carried out: • Lit 0 = Auto Backlight (background illumination switches off approx. 10 sec. after reaching a stable weighing value) • Lit 1 = background illumination on • Lit 2 = background illumination off	

Use the numeric keyboard to enter the corresponding code number of the desired type of background illumination.	
Confirm input with M+, the balance automatically returns to the menu.	
Return to weighing mode using C The display appears in the desired setting.	

English

12 Servicing, maintenance, disposal

12.1 Cleaning

Before cleaning, 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 Servicing, 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.

12.4 Error reports

Error message	Display	Description
Err n	Weight	Instable load
Err H	Weight	Internal error
Err L	Weight	Internal error
hhhhh	Weight	Overload
hhhhh	Quantity	Number of parts over display range

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 pan 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.

14 Declaration of conformity

The current EC/EU Conformity declaration can be found online in:

www.kern-sohn.com/ce

For verified weighing scales (= weighing scales assessed for conformity) a declaration of conformity is included in the scope of delivery.

English