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Operating instructions
Baby/toddler weighing scales

KERN MBS

Version 1.1
06/2010
GB

MBS-BA-e-1011

GB

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Version 1.1 06/2010

Operating Instructions for Baby/toddler weighing scales

Table of Contents

English

1 Technical Data

KERN	MBS 20K10
Readability (d)	10 g
Weighing range (max)	20 kg
Weighing Units	kg, lb
Electric Supply	1 x 9V block battery + 1 x CR2032
Time/date display	After 2 min without change of load
Recommended adjustment weight	10 kg
Operating temperature	+ 5°C … + 35°C
Humidity of air	max. 80 % (not condensing)
Dimensions fully mounted (W x D x H) mm	560 x 370 x 175
Weighing surface	520 x 230
Weight kg (net)	3.0

2 Declaration of -Conformity

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Konformitätserklärung

EC-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

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 MBS 20K10

EU Directive	Standards
2004/108/EC	EN 61000-6-3: 2007 EN 55014-1: 2006 EN 55014-2/A1: 2001

Date: 07.12.2009

Signature:

Gottl. KERN & Sohn GmbH
Management

English

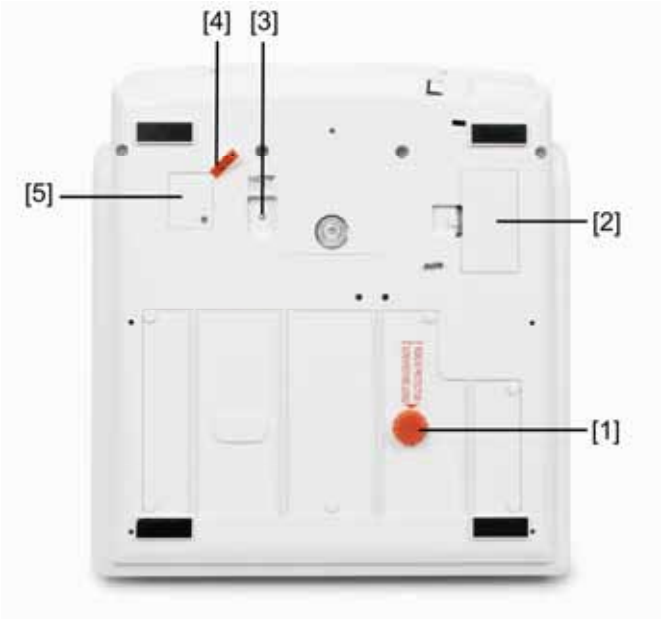
3 Appliance overview

Utilisation as baby weighing scales (For assembly see Chapter 6)

English

Utilisation as toddler weighing scales

Underside



1. Transportation screw
2. Battery compartment for 9V block battery
3. Weighing unit selector switch
4. Insulation strips
5. Battery compartment for CR2032

4 Basic Information (General)

Intended use

These scales are used to determine the weight of babies in the prone position in the private sphere. Utilisation of this balance in the medical field is not permissible.

Lay or place the baby on the weighing plate for the weighing procedure. As soon as a stable weighing value is reached the weighing value can be read.

The balance should be checked for correct condition prior to each utilisation by a person familiar with proper operation of the balance.

Baby scales are designed for weighing children in the prone position. If babies are to be weighed in the sitting position, place them in the middle of the scale pan.

To prevent babies lying on the weighing pan from falling off the scale, they must be watched all the time. Please observe note on weighing pan!

Non-intended use

Do not use balance for dynamic weighing. 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. This could cause damage to the balance.
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.

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 and damage caused by media, liquids
- Natural wear and tear
- The appliance is improperly set up or incorrectly electrically connected
- The measuring system is overloaded
- Dropping the balance

Test device control

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.

For personal balances with height measuring rods, we recommend a metrological examination of the accuracy of the height measuring rod, however, this is not mandatory as the determination of human body height involves rather large, intrinsic inaccuracies.

5 Basic Safety Precautions

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

6 Transportation & Storage

Testing upon acceptance

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

Packing, packing material, 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 platform, power pack, stand, operating panel etc. against slipping and damage.

7 Unpacking, Setup and Commissioning

Installation location, Deployment location

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 scales on a stable, even 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, vapors 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 the balance and of the person to be weighed.
- Avoid contact with water.

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.

Unpacking

Remove the individual components of the balance or the complete balance from the packaging with care and install at the intended location.

English

Scope of supply

- Balance, see chap. 3
- Operating instructions
- Batteries (1 x 9V block battery + 1 x CR2032)

Placing

1. Remove transportation protection and insulation strips

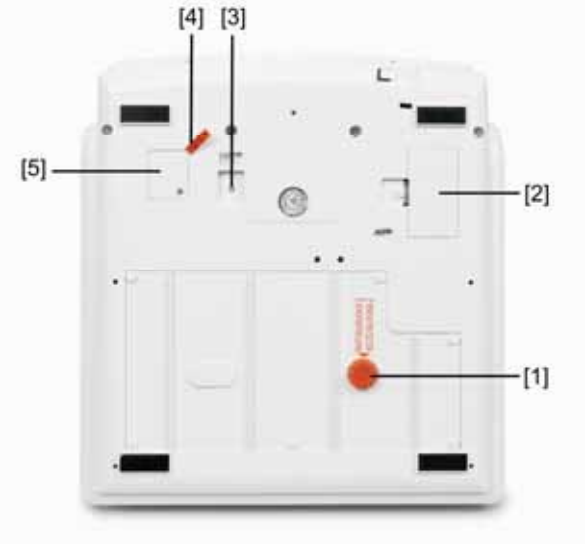


Fig.1: Bottom of the balance

Acc. to fig. 1 remove transportation screw [1] and insulation strips [4] (See Chapter "Battery operation").

Prior to an other transport apply again the transport screw.

2. Select weighing unit

The weight display can be switched between grams (g/kg) and pounds (lb.oz).

Select the required unit on the weight display by pressing the selector switch [3] (See Fig.1) "g ⇆ lb".

3. Assembling the baby scales

Open scale pan and click into place in accordance with Fig. Ensure that the latch mechanism has completely clicked into the end position.

Push scale pan onto weighing plate. Ensure correct positioning; the stop [6] must point towards the back.

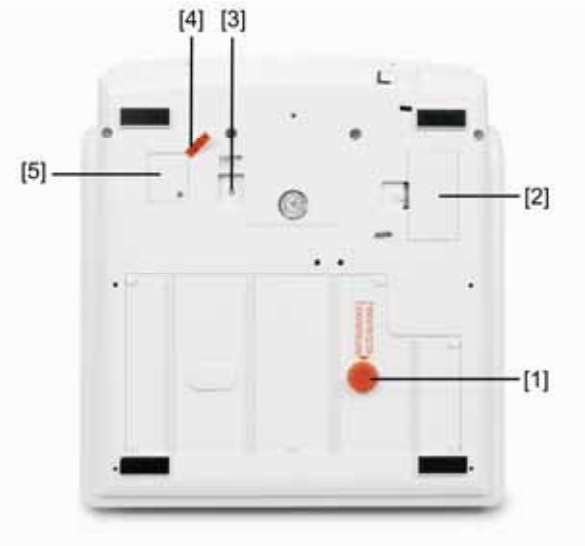
Push weighing plate completely as far as the stop [6]. Ensure that the weighing plate is exactly horizontal.

4. Dismantling the baby scales

Carry out the assembly procedure in reverse order.

Ensure that vigorous pressure is exerted when snapping the scale pan into position with both hands.

Battery operation



Remove the battery cover [2] from the underside of the scales Connect 9 V block battery, replace battery cover.

A CR2032 coin cell battery [5] for the time/date display is inserted in the factory. In as-delivered condition a insulation strip [4] is inserted under the battery contact in order to prevent switching on during transport. This strip must be removed prior to first utilisation. Undo the screw on the battery cover and remove insulation strips. Screw battery cover back on.

The scales are switched off after 2 minutes without load change in order to save the battery. Time and date are displayed alternately in this Idle mode.

If the batteries are run down soon, "**LO**" appears in the display. Replace battery.

The memory contents will be deleted if both batteries are removed at the same time.

If the balance is not used for a longer time, take out the batteries and store them separately. Leaking battery liquid could damage the balance.

8 Operation

Keyboard overview

M	Save weight value
MR	Call off weight value
▲▼	Display weight gain
	Set date/time
	During numeric input increase of digit
	Selector switch Time/ Date display ⇆ Weight display
TARE	Taring

Overview of displays

	Identifies the display of a saved weight value after pressing MR
▼▲	Identifies the following displays after pressing ▲▼ 1. Weight gain/loss 2. Date/time of the saved weight value

English

Set date/time

⇨ Press [⏲] during time/date display, the hour display flashes.

⇨ Select required setting e.g. 10 within 10 s by pressing [↑].

⇨ Confirm by pressing [⏲], the minute display flashes.

⇨ Select required setting within 10 s by pressing [↑].

⇨ Confirm by pressing [⏲], the month display flashes.

⇨ Select required setting e.g. 09 within 10 s by pressing [↑].

⇨ Confirm by pressing [⏲], the day display flashes.

⇨ Select required setting within 10 s by pressing [↑].

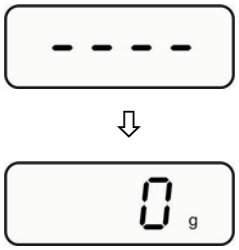
⇨ Confirm by pressing [⏲], the changed time/date will be displayed alternately.

After a battery change or in the delivery state, the time will displayed as "00.00" (24 h) and the date as 01.01 (day/month).

English

Weighing Dynamic weighing function:

Vibrations will be filtered out to calculate a stable weight

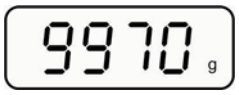


⇨ Press  The balance will carry out a segment test. As soon as the weight display **"0 g"** appears in the currently set weighing unit ("g" or "lb"), the scales are ready for use**.**

Reset to zero if necessary by pressing 

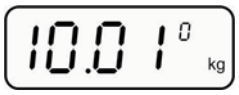
.

Display < 10 kg



⇨ Place person in the centre of the balance or place baby in the scale pan.
Wait until a stable weight is displayed.

Display < 10 kg



As the scales have only a 4 segment display, the last digit is displayed as the next whole number with a display > 10 kg.

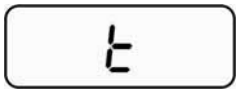
- If the weighing range is exceeded, "---" is displayed.
- The scales are switched off after 2 minutes without load change in order to save the battery. Time and date are displayed alternately in this Idle mode.
- The weight display is automatically "frozen" in the event of weighing stoppage. Next weighed goods will only be displayed after relieving.

English

Weighing with tare

The tare weight of any preloads can be deducted by pressing a button so that the actual weight of the person is displayed in subsequent weighings.

⇨ Put object (such as towel or padding) on the weighing pan.



⇨ Press TARE, the zero display appears.

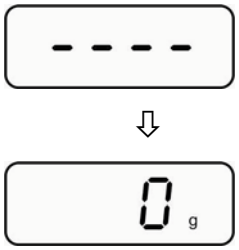
⇨ Place person in the centre of the balance or place baby in the scale pan.
Wait until a stable weight is displayed.

- The balance is able to only store one taring value.
- When the balance is unloaded the saved taring value is displayed with negative sign.
- To delete the stored tare value, release scales and press TARE.

English

Weight gain check

The baby's weight can be saved before feeding. Then the weight gain can be calculated by pressing a button.



⇨ Press [ ]. The balance will carry out a segment test. As soon as the weight display **"0 g"** appears in the currently set weighing unit ("g" or "lb"), the scales are ready for use**.**

Save

(Example)

⇨ Place the baby on the scale pan before feeding.
Wait until a stable weight is displayed.

⇨ then press [M].
The weight will be saved.

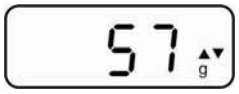
⇨ Press [ ] and wait for weight display.

(Example)

⇨ Place the baby on the scale pan after feeding.

Display weight gain

⇨ Press [▼▲] and the scales will calculate the difference between the saved (before feeding) and the current weight value (after feeding).
The weight gain is displayed followed by date/time of the saved weight value (before feeding) and the current weight. The displays are identified by the ▼▲ symbol.



(Example

(Example)

(Example)

(Example)

- The [▼▲] key can only be operated with the weight display or displays with the ▼▲ symbol.
- The scales can display weight gains as well as weight losses (negative values).

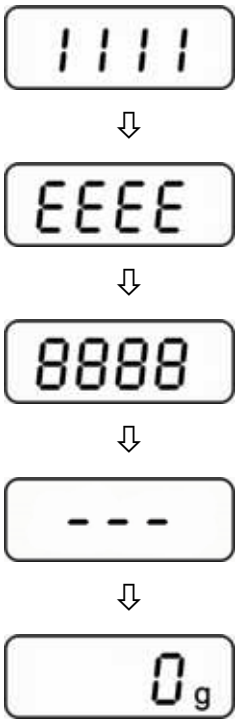
Calling up

- The saved weight value is called up by pressing MR, irrespective of whether the scales are in Weighing mode (weight display) or in Idle mode (time/date). The weight value is displayed for 4 s and identified by the symbol ⊕.

- The saved weight value remains stored until it is overwritten with a new value.
- The value will be deleted if the battery is changed.

English

9 Adjustment



⇨ Connect battery and at the same time press [M] and [MR]
"1111" followed by „EEEE", „8888" and „ --- „ is displayed
After that the balance changes to gram display „0 g"

⇨ Put an adjustment weight of 10 kg

(Example)

⇨ Press [M] and [MR]
A numeric value between „9999 and 10010" is displayed

⇨ Take away adjustment weight

⇨ Remove battery
Now the process of adjustment is completed

English

10 Service, maintenance, disposal

Cleaning

Please do not use aggressive detergents (solvents etc.). Apply soapy water to moist cloth or use household detergent. Prevent fluid from penetrating into device. Finish by polishing with dry soft cloth. Remove dirt immediately.

Service, maintenance

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

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 a fault in the program sequence, the balance should be shortly switched off. The weighing process must then be restarted from the beginning.

Failure:	**Possible cause:**
The displayed weight does not glow.	• The balance is not switched on. • Batteries are inserted incorrectly or empty • No batteries inserted.
The displayed weight is permanently changing	• Draught/air movement • Table/floor vibrations • The weighing plate is in contact with foreign bodies or is not correctly positioned. • 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. • The balance is on an uneven surface. • 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.