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Operating instructions

Electronic height-measuring rod

KERN MSD 200

Version 1.1

02/2010

GB



MSD_200-BA-e-1011



KERN MSD 200

Version 1.1 02/2010

Operating instructions

Electronic height-measuring rod

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English

1 Device overview

MSD 200 with KERN MPB-P:



1. Head stop
2. Measuring rod
3. Display unit

2 Technical Data

KERN	MSD 200
Measuring range	1.2 – 2 m
Readability	1 mm
Tolerance	10 mm
Units	cm → ft/inch → inch
Battery	2 x 1.5 V AAA
Operating period	600 h
Automatic cutout	after 60 s
Measurements (W x H x D) mm, folded	90 x 1000 x 70
Net weight	0.85 kg
Combinable scales	Personal scales with stand <ul style="list-style-type: none"> • KERN MPS-PM • KERN MPB-P
	Stand assist scales <ul style="list-style-type: none"> • KERN MTS-M

3 Declaration of conformity



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Declaration of conformity

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 to 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	Manifetamos 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 conformità	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.

Height rod: **KERN MSA 80, MSD 200, MSE 210**

EU Directive	Standards
2004/108/EC EMC	EN 61000-6-3 : 2007, CISPR 16-2-3: 2003 EN 61000-6-1 : 2007 IEC61000-4-2: 1995+A1 : 1998+A2: 2000 IEC61000-4-3: 2008 IEC61000-4-8 : 1993+A1 : 2000
2006/95/EC LVD	EN 60950 : 2006

Date: 22.09.2009

Signature: _____

Gottl. KERN & Sohn GmbH
Management

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4 Basic instructions



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

Staff training

The medical staff must apply and follow the operating instructions for proper use and care of the product.

Safety Instructions

- The height measuring rod is designed exclusively for mounting on KERN personal scales with integrated stand and stand assist scales (See chapter 2 “Specifications”) or on a wall.
- Please use no other than the supplied fixtures for mounting.
- Ensure that mounting was carried out correctly and that all screws have been tightened properly, see chapter 7 “Assembly”.
- For medical application recheck correctness of scale after assembly with the help of a calibrated length measuring device.
- To prevent risk of injury, ensure that the measuring flap is returned to folded-down position after each use.
- Reliable values of body height measurements are only achieved if the heel, back and head are aligned in a straight line. Please note that the body height of a person may vary by several cm as the day progresses.

Test device control

We recommend a metrological examination of the accuracy of the measuring rod, however, this is not mandatory as the determination of human body height involves rather large, intrinsic inaccuracies.

5 Unpacking / Scope of delivery

Testing upon acceptance

Please check packaging as well as the device on receipt for possibly visible external damages.

Packaging

Keep all parts of the original packaging for a possibly required return.
Only use original packaging for returning.

Scope of supply

For measuring rod, see chapter 1

For head stop, see chapter 1

For display unit, see chapter 1

Batteries, 2 x 1.5 V AAA



2 x bracket



4 x screw, "scales stand bracket"



2 x screw, "measuring rod on scales stand"

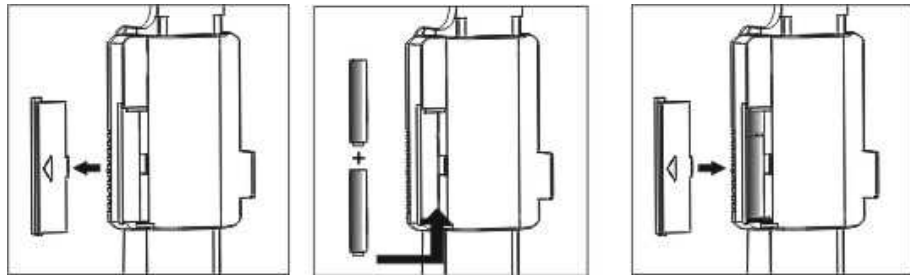


Operating instructions

6 How to insert the batteries

Prior to initial use, insert the batteries as follows:

1. Remove the battery cover as shown on the illustration
2. Insert 2 x 1.5 V AAA batteries. Pay attention to the correct polarity (See inside of cover).
3. Reattach the battery cover.



To save battery power, the device auto-disconnects automatically after 60 seconds have passed without a change of display.

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

7 Change battery

Low batteries are indicated by the message "lo".
Exchange batteries as follows.

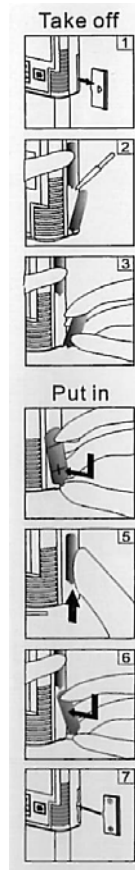


Fig. 1: Remove the battery cover as shown on the illustration

Fig. 2: Loosen batteries with the help of a pointed object

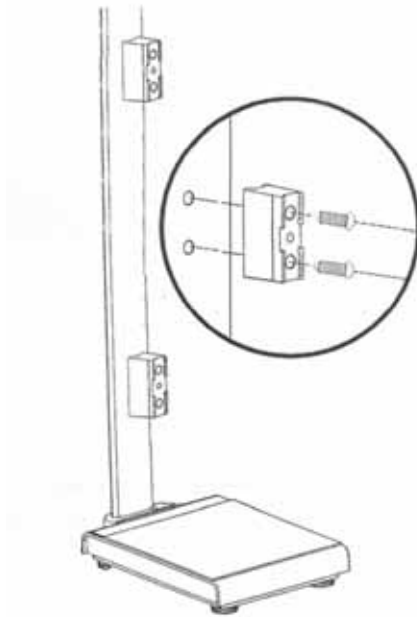
Fig. 3: Remove batteries

Fig. 4.-6. Insert 2 x 1.5 V AAA batteries. Pay attention to correct polarity.

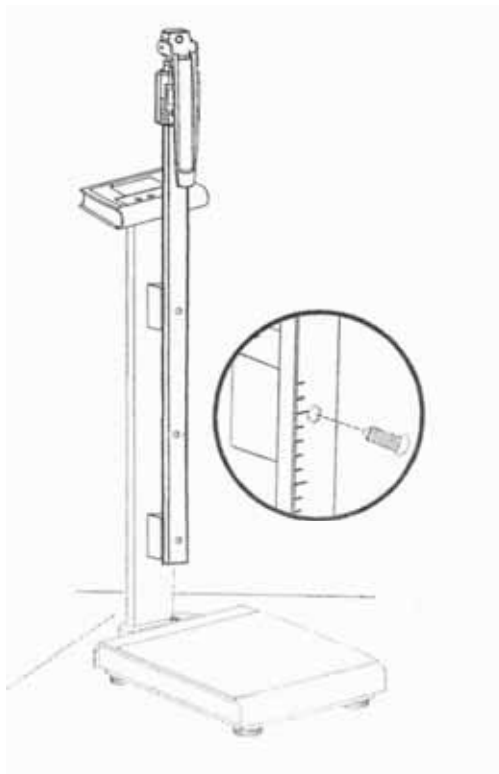
Fig. 7: Reattach the battery cover.

8 Installation

How to attach to KERN scale



Use the 2 screws for screwing the bracket into the supplied insert nuts on the stand of the scales.



Extend the height measuring rod and tighten it in the bracket with the help of the appertaining screw.

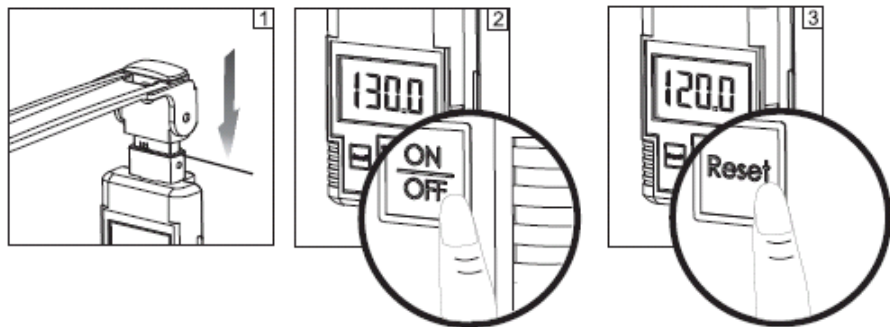
9 Operation

Keyboard overview



Button	Function
ON/OFF	Turn on/off
UNIT	Switching between units (cm → ft/inch → inch)
HOLD	“Freeze” measurement result
RESET	Reset scale (120 cm)

Turn on/ Reset scale

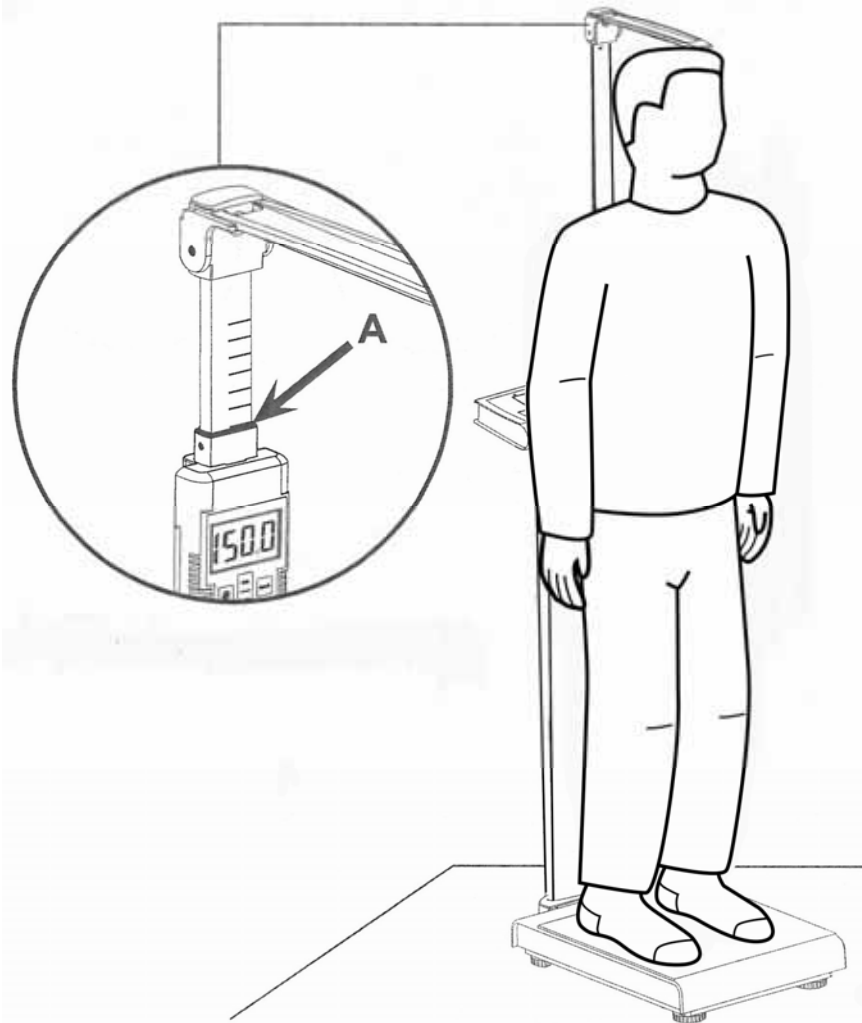


1. Push in measuring rod completely.
2. Turn on appliance by pressing the **ON/OFF**-key.
3. If the visual display deviates from “120.0 cm“, press the **RESET KEY**. The visual display will be reset to “120.0 cm“.



Switching Off ⇒ KEEP THE **ON/OFF** –key pressed down for 2 seconds. The display will disappear.

Length measuring



- ⇒ Pull measuring rod upwards
- ⇒ Move head stop up into horizontal position until it locks.
- ⇒ Carefully push the measuring rod down until the head stop gently touches the head of the aligned person. Read the body height at the visual display or the measuring rod (mark A).

HOLD function

- ⇒ The measured value can be retained on the display by pressing the **HOLD** key; pressing it again will make it disappear.

Switching between units

- ⇒ To switch between the available units, press the **UNIT**-key.
cm → ft/inch → inch → cm

10 Service, maintenance, disposal

Cleaning Do not use aggressive detergents (solvents etc.). Use a moist cloth dipped in soft soap suds or a household cleaner. Prevent liquids from entering the display unit.

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.