seca 202

Measuring rod
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1. DEVICE DESCRIPTION

1.1 Intended use

The medical measuring rod seca 202 is used primarily in hospitals, general practice and nursing facilities on wards.

The measuring rod is for conventional determination of height and for the early detection of growth disorders; it assists the physician supervising treatment in making a diagnosis or deciding on a course of treatment.

To make an accurate diagnosis, however, other specific examinations have to be ordered by the physician and their results taken into account, in addition to determining height values.

1.2 Functional description

The measuring rod is to stand on the floor and is fitted to a wall with two screws. It is possible to compensate for protruding walls or attachments (such as skirting boards or cable ducts) with a maximum of 5 spacer washers per screw.

The measuring rod consists of two telescopic elements:

- Lower telescopic element: Measuring range 1:
  6 cm - 130.5 cm (3 inch - 51.4 inch)
- Upper telescopic element: Measuring range 2:
  130.5 cm - 200 cm (51.4 inch - 78 inch)

The head slide of the measuring rod is locked at the top of the upper telescopic element to measure persons taller than 130.5 cm (51.4 inch). The head slide needs to be released to measure persons smaller than 130.5 cm (51.4 inch). The measuring flap can be folded down.
1.3 User qualification

Assembly Devices that are shipped partially assembled may only be mounted by sufficiently qualified persons such as specialist dealers, hospital technicians or seca service technicians.

Operation The device may only be operated by healthcare professionals.

2. SAFETY INFORMATION

2.1 Safety information in this user manual

The signal words used in this user manual have the following meaning:

CAUTION!
Used to identify a hazardous situation. If you fail to take note of this information, minor to moderate injuries may result.

ATTENTION!
Used to identify possible incorrect usage of the device. If you fail to take note of this information, you may damage the device, or the measured results may be incorrect.

2.2 Basic safety precautions

• Please observe the information in this user manual.
• Keep this user manual in a safe place. This user manual is part of the product and must be readily available.

CAUTION!
Patient hazard, damage to device
• Use the supplied assembly material only.
• Fold down the measuring slide after each measurement.
• Have the device serviced regularly as described in the respective section of this document.
• Technical changes to the device are not permitted. The unit contains no user-serviceable parts. Make sure that maintenance and repair are only carried out by an authorised seca service partner. You can find your local service partner at www.seca.com or send an email to service@seca.com.

• Make sure you only use genuine seca accessories and spare parts. Otherwise the warranty provided by seca will become null and void.
3. OVERVIEW

3.1 Controls and mounting elements

<table>
<thead>
<tr>
<th>No.</th>
<th>Element</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lower telescopic element</td>
<td>Measuring range 1: 6 cm - 130.5 cm 3 inch - 51.4 inch</td>
</tr>
<tr>
<td>2</td>
<td>Upper telescopic element</td>
<td>Measuring range 2: 130.5 cm - 200 cm 51.4 inch - 78 inch</td>
</tr>
</tbody>
</table>
| 3   | Measuring flap           | • To be positionned on top of the patient’s head  
• Can be folded down |
3.2 Marking on the device and on the rating plate

<table>
<thead>
<tr>
<th>No.</th>
<th>Element</th>
<th>Function</th>
</tr>
</thead>
</table>
| 4   | Lock         | • Locks head slide at top of upper telescopic element for measurement in measuring range 2  
|     |              | • Releases head slide for measurement on lower telescopic element (measuring range 1) |
| 5   | Head slide   | • Locked at top of upper telescopic element  
|     |              | • To be released for measurement on lower telescopic element (measuring range 1) |
| 6   | Read-off line 1 (red) | Reference when head slide is positioned on lower telescopic element to measure persons smaller than 130.5 cm (51.4 inch) |
| 7   | Read-off line 2 (red) | • Reference when measuring persons taller than 130.5 cm (51.4 inch)  
|     |              | • Results to be read off at upper telescopic element (here: 155.5 cm) |
| 8   | Spacer washer | • A maximum of 5 per screw to allow the measuring rod to be attached to a wall precisely vertically  
|     |              | • Protruding walls or attachments (e.g. skirting boards or cable ducts) can be compensated |
| 9   | Fixing hole  | The fixing screw of the measuring rod is inserted in this hole |

<table>
<thead>
<tr>
<th>Text/Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Model number</td>
</tr>
<tr>
<td>xx/xx</td>
<td>Batch number, engraved on back of device</td>
</tr>
<tr>
<td>📚</td>
<td>Observe user manual</td>
</tr>
<tr>
<td>🌧️</td>
<td>Device complies with EC standards and directives</td>
</tr>
<tr>
<td>🏆</td>
<td>0123: Notified body medical products: TÜV Süd Product Service</td>
</tr>
</tbody>
</table>

3.3 Marking on the packaging

<table>
<thead>
<tr>
<th>Silhouette</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>☔️</td>
<td>Protect from moisture</td>
</tr>
<tr>
<td>🌡️</td>
<td>Arrows indicate top of product. Transport and store in an upright position.</td>
</tr>
<tr>
<td>⚽️</td>
<td>Fragile</td>
</tr>
<tr>
<td>🍸</td>
<td>Do not throw or drop.</td>
</tr>
</tbody>
</table>
4. BEFORE YOU REALLY GET STARTED...

4.1 Scope of delivery

<table>
<thead>
<tr>
<th>No.</th>
<th>Component</th>
<th>Pcs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Measuring rod <em>seca 202</em></td>
<td>1</td>
</tr>
<tr>
<td>b</td>
<td>Screw M4 x 60 mm</td>
<td>2</td>
</tr>
<tr>
<td>c</td>
<td>Spacer washer</td>
<td>10</td>
</tr>
<tr>
<td>d</td>
<td>Wall plug ø 5 mm</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>User manual, not shown</td>
<td>1</td>
</tr>
</tbody>
</table>
4.2 Mounting measuring rod

Mounting options

The measuring rod must be standing on the floor and attached precisely vertically to a wall for meaningful measuring results to be obtained.

The spacer washers supplied allow you to compensate for protruding walls and attachments (e.g. skirting boards or cable ducts).

The following illustration shows a variety of options for attaching the rod with the number of spacer washers per screw recommended in each case.

Option I

Option II

Option III

Option IV
**Preparation**

Choose an adequately strong, load-bearing wall to mount the device. Standard wall plugs are supplied for installation on solid brick walls. We recommend use of appropriate special wall plugs for other types of walls.

To achieve exact measurement results, the floor where the device is installed must be flat and stable. Soft floorings, e.g. wooden planks, give under the weight of the patient and distort the measured result.

To mount the measuring rod to a wall, proceed as follows:

1. Mark the drill holes perpendicular to each other exactly at the positions indicated in the illustration above.
2. Drill the hole using a drill bit ø 5 mm.
3. Insert the wall plugs in the drill holes.

**Mounting measuring rod to the wall**

You need the following fastenings:

2 x Screw M4 x 60  max 10 x Spacer washer

1. If there are protrusions or attachments (e.g. skirting boards or cable ducts) where you are attaching the rod, measure the depth of these.
2. Select the option to suit the attachment location (see “Mounting options” on page 10).
ATTENTION!
Malfunction due to installation errors
If no spacer washers are used, the head slide will be trapped against the wall. This will make it impossible to measure height.
- Ensure that at least 1 spacer washer per screw is used.

3. Put the appropriate number of spacer washers ready:
   - 1 spacer washer = 1.2 cm
   - Every subsequent spacer washer: + 0.7 cm
   - 5 spacer washers = 4.0 cm

4. Pull the upper telescopic element out to the 173 cm mark.
The holes in the lower telescopic element are exposed.

5. Put a screw in the top bore of the measuring rod.
6. Put the appropriate number of spacer washers on the screw (the illustration shows attachment option II).
7. Screw measuring rod to wall hand-tight.
8. Repeat steps 5. to 7. for the bottom bore.
9. Tighten up both screws fully.
4.3 Verifying position of measuring rod

**Checking position**

After mounting the measuring rod, you must check its position and correct if necessary. To do so, proceed as follows:

1. Use a spirit level to ensure that the measuring rod is vertical.

**Requirement:** The measuring rod is inclined neither towards nor away from the wall.

2. If the measuring rod is not vertical, correct its position as described in the section below.

**Adjusting position**

To correct the position of the measuring rod proceed as follows:

1. Loosen the screws of the measuring rod.
2. Correct the position of the measuring rod by adding or removing spacer washers.
3. Tighten the screws on the measuring rod.
4. Check the position of the measuring rod again.
5. If necessary, re-adjust the position of the measuring rod.

**NOTE:**

Your seca service partner will also be happy to help. You can find your local seca service partner at www.seca.com or just send an e-mail to service@seca.com.
5. PERFORMING LENGTH MEASUREMENT

CAUTION!

Patient hazard

Always perform a function check as described in section “Function Check” on page 17 before using the device.

5.1 Measuring patients smaller than 130.5 cm

1. Unlock the head slide by pressing on the lock.
2. Unfold the measuring flap so it engages in a horizontal position.
3. Ask the patient to step under the measuring flap:
   - Back to the measuring rod
   - Body kept straight
   - Head straight: So-called "Frankfurt plane" parallel to the measuring flap
4. Move the head slide on the lower telescopic element until the measuring flap rests on the patient’s head.
5. Read off the measured result at the read-off line (read-off line 1) of the headslide (here: 113.5 cm).
6. Ask the patient to step away from the measuring rod.
7. Fold the measuring flap down.
8. Move up the head slide until it engages in the lock.
5.2 Measuring patients taller than 130.5 cm

1. Unfold the measuring flap so it engages in a horizontal position.

2. Pull the upper telescopic element out until the patient can comfortably stand under the measuring flap.

3. Ask the patient to step under the measuring flap:
   - Back to the measuring rod
   - Body kept straight
   - Head straight: So-called "Frankfurt plane" parallel to the measuring flap

4. Slide down the upper telescopic element until the measuring flap rests on the patient’s head.

5. Read off the measured result at the read-off line (read-off line 2) of the lower telescopic element (here: 141.5 cm).

6. Ask the patient to step away from the measuring rod.

7. Slide the upper telescopic element to the lowest position.

8. Fold the measuring flap down.
6. HYGIENE TREATMENT

**ATTENTION!**

*Damage to device*

Inappropriate detergents may damage the sensitive surfaces of the devices.
- Do not use caustic or abrasive detergents.
- Do not use spirits or benzine.

6.1 Cleaning

- Use a soft cloth dampened with mild soapsuds to clean the surfaces of the device.

6.2 Disinfecting

1. Follow the instructions on the disinfectant.
2. Disinfect the device at regular intervals with a commercially available disinfectant, e.g. with 70% isopropyl alcohol.

Please take note of the following terms:
- Prior to every measurement with direct skin contact:
  - Weighing platform
  - Head slide and measuring flap
  - Measuring flap extension (if applicable)
- After every measurement with direct skin contact:
  - Weighing platform
  - Head slide and measuring flap
  - Measuring flap extension (if applicable)
- If required:
  - Column and display of the scales
  - Telescopic elements of the length measuring rod
  - Heel stop (if applicable)

6.3 Sterilizing

This device may not be sterilised.
7. FUNCTION CHECK

- Perform functional check prior to each operation.

A complete functional check includes:

- Visual inspection for mechanical damage
- Visual and functional inspection of all movable parts
- Functional check of the control elements

**CAUTION!**
Risk of injury
If you notice any faults or deviations during the functional check, do not use the unit.
- Have repairs of the unit carried out by seca service or an authorized service partner.

8. TROUBLESHOOTING

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause/Solution</th>
</tr>
</thead>
</table>
| Measurement does not return plausible results. | Measurement result read off incorrectly  
- Use the correct edge for the measuring range currently in use (“Performing length measurement” from page 14)  
- Read off the decimal places for the current measuring range in the correct direction (“Performing length measurement” from page 14)  
Incorrect position/posture of patient  
- Correct the position/posture of the patient (“Performing length measurement” from page 14)  
Measuring rod mounted incorrectly  
- Mount the measuring rod correctly (“Before you really get started…” from page 9) |

9. SERVICING

The seca measuring rod does not require maintenance. Should any part of it fail to function, please contact an authorised service partner. You can find your local service partner at www.seca.com or just send an e-mail to service@seca.com.
10. TECHNICAL DATA

10.1 General technical data

<table>
<thead>
<tr>
<th>General technical data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions</strong></td>
</tr>
<tr>
<td>• Depth</td>
</tr>
<tr>
<td>• Width</td>
</tr>
<tr>
<td>• Height (retracted)</td>
</tr>
<tr>
<td>• Height (extended)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
</tr>
<tr>
<td><strong>Temperatur range</strong></td>
</tr>
<tr>
<td>• Operation</td>
</tr>
<tr>
<td>• Storage</td>
</tr>
<tr>
<td>• Transport</td>
</tr>
<tr>
<td><strong>Air pressure</strong></td>
</tr>
<tr>
<td>• Operation</td>
</tr>
<tr>
<td>• Storage</td>
</tr>
<tr>
<td>• Transport</td>
</tr>
<tr>
<td><strong>Humidity</strong></td>
</tr>
<tr>
<td>• Operation</td>
</tr>
<tr>
<td>• Storage</td>
</tr>
<tr>
<td>• Transport</td>
</tr>
<tr>
<td><strong>Medical device in accordance with Directive 93/42/EEC</strong></td>
</tr>
</tbody>
</table>

10.2 Technical data, length measuring

<table>
<thead>
<tr>
<th>Technical data, length measuring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measuring range 1</strong></td>
</tr>
<tr>
<td>6 cm - 130.5 cm</td>
</tr>
<tr>
<td>3 inch - 51.4 inch</td>
</tr>
<tr>
<td><strong>Measuring range 2</strong></td>
</tr>
<tr>
<td>130.5 cm - 200 cm</td>
</tr>
<tr>
<td>51.4 inch - 78 inch</td>
</tr>
<tr>
<td><strong>Graduation</strong></td>
</tr>
<tr>
<td>1 mm, 1/8 inch</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
</tr>
<tr>
<td>better than ± 5 mm</td>
</tr>
</tbody>
</table>
11. WARRANTY

We offer a two-year warranty from the date of delivery for defects attributable to faulty material or poor workmanship. This excludes all moveable parts such as (rechargeable) batteries, cables, power supply units, etc. Defects which are covered by the warranty shall be rectified free of charge for customers on production of the sales receipt. No further claims can be accepted. The costs of shipment in both directions shall be borne by the customer where the device is not located at the customer’s premises. In the event of any damage during shipment warranty claims can only be asserted where the complete original packaging was used for shipment and the scales were secured inside in the same manner as in the original packaging. You should therefore keep all packaging.

The warranty shall become null and void where the device is opened by persons not expressly authorised to do so by seca.

We ask customers based abroad to contact their local sales agent directly in the case of warranty claims.
The equipment for measuring length

Chargenr.: siehe Rückseite Messstab
Batch no.: see back of measuring rod
N° de lot: voir au dos de la toise de mesure
Nº di lotto: v. parte posteriore dell’asta graduata
N° de lote: véase lado trasero de la varilla
Charge nr.: se på bagsiden af længdemåleapparat
Partinr.: se mätstavens baksida
Lot nr.: se baksiden målestat.
Valmistuserän numero: ks. mittasauvan takaoaa
Chargenummer: zie achterzijde meetlat
Nº de carga: vide retaguarda da vareta de medição
Αρ. σειράς: Βλέπε στην πίσω πλευρά του μετρητή
Číslo šarže: viz zadní strana - měřidlo
Partinumber: vt mõõtelati tagaküljelt
Gyártási tételszám: lásd a távolságmérő hálólapját
Partijos Nr.: žr. skirtuką galinėje puseje
Sérijas Nr.: skat. mērīšas aizmugurē
Nr partii: patrz na odwrocie listwy pomiarowej
Štev. šarže: oglejte si zadnjo stran merilne palice
Číslo šarže: pozri zadnú stranu meracej laty
Şarj numarası: ölçüm çubuğunun arka kısmina bakın
... erfüllt die geltenden Anforderungen folgender Richtlinien:
93/42/EWG über Medizinprodukte.

... complies with the applicable requirements of the following directives:
93/42/EEC governing medical devices.

... satisfait aux directives et normes suivantes:
93/42/CEE relatives aux dispositifs médicaux.

... è conforme ai requisiti delle seguenti direttive: 93/42/CEE in materia di prodotti medicali.

... cumple las exigencias vigentes de las siguientes directivas:
93/42/CEE sobre productos sanitarios.

... opfylder de gældende krav fra følgende direktiver:
93/42/EØF om medicinprodukter.

... uppfyller gällande krav i följande direktiv och normer:
93/42/EEG om medicintekniska produkter.

... opfylder gældende krav i følgende direktiver:
93/42/EØF om medisinske produkter.

... täyttää seuraavien direktiivien voimassa olevat määräykset:
93/42/ETY, lääkinnälliset laitteet

... voldoet aan de geldende eisen van de volgende richtlijnen:
93/42/EEG betreffende medische hulpmiddelen.

... cumpre os requisitos válidos das seguintes directivas:
93/42/CEE relativa a dispositivos médicos.

... πληρεί όλες τις ισχύουσες απαιτήσεις των ακόλουθων Οδηγιών:
93/42/EΟΚ περί ιατροτεχνολογικών προϊόντων.

... spĺňa platné požadavky týchto smerníc:
93/42/EHS o zdravotníckych prostriedkoch.

... opfylder gældende krav fra følgende direktiver:
93/42/EØF om medicinprodukter.

... uppfyller gällande krav i följande direktiv och normer:
93/42/EEG om medicintekniska produkter.

... voldoet aan de geldende eisen van de volgende richtlijnen:
93/42/EEG betreffende medische hulpmiddelen.

... voldoet aan de geldende eisen van de volgende richtlijnen:
93/42/EEG betreffende medische hulpmiddelen.

... voldoet aan de geldende eisen van de volgende richtlijnen:
93/42/EEG betreffende medische hulpmiddelen.

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and Measuring Systems
since 1840

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