
















# USER MANUAL HM200U

Ultrasonic Height Stadiometer



Please keep the instruction manual at hand all the time for future reference.

## Explanation of Text/Symbols on Device Label/Packaging

Text/Symbol	Meaning
	Caution, consult accompanying documents before use
	Separate collection for waste of electrical and electronic equipment, in accordance with Directive 2002/96/EC. Do not dispose of device with everyday waste
	Name and address of device manufacturer, and year/country of manufacture
	Carefully read user manual before installation and usage, and follow instructions for use.
	Medical electrical device, Type B applied part
	Device catalogue number / model number
	Manufacturer's batch or lot number for device
	Device's serial number
	Device's Unique Device Identifier
	Device complies with UK directives
	Value in mass units (verified models only). This is the difference between two consecutive display values, used to classify and verify a scale
	Name and address of entity importing device (if applicable)
	Name and address of entity responsible for translating Information For Use (if applicable)

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## Copyright Notice

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## I. Safety Notes

### A. General Information

Thank you for choosing this Charder Medical device. It is designed to be easy and straightforward to operate, but if you encounter any problems not addressed in this manual, please contact your local Charder service partner. Before beginning operation of the device, please read this user manual carefully, and keep it in a safe place for reference. It contains important instructions regarding installation, proper usage, and maintenance.

### Intended Purpose

This medical device is designed to be used in accordance with national regulations, to measure height within specifications, for height-related usage by professionals.

### Clinical Benefit

Measurement results can be used by professionals to diagnose (and monitor) height-related issues.

### General Handling

- Ensure all parts are properly locked and tightened before operating the device.
- **CAUTION:** Do not use next to equipment that may cause electromagnetic or other types of interference.

### Safety Instructions

- The device has an expected service life of 5 years when correctly handled, serviced, and periodically inspected in accordance with manufacturer's instructions.

### Cleaning

- Device surface should be cleaned using alcohol-based wipes. Corrosive cleansing liquids should not be used.

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## **Warranty/Liability**

- The period of warranty shall be eighteen (18) months, beginning on the date of purchase. Please retain your receipt as proof of purchase.
- No responsibility shall be accepted for damage caused through any of the following reasons: unsuitable or improper storage or use, incorrect installation or commissioning by the owner or third parties, natural wear and tear, changes or modifications, incorrect or negligent handling.

## **Disposal**

- This product is not to be treated as regular household waste, but should be taken to a designated collection points for electronics. Further information should be provided by local waste disposal authorities.

## **Incident Reporting**

- Any serious incident that has occurred in relation to the device should be reported to the manufacturer, EU representative (if device is used in EU member state), and competent authority of user/subject's member state.


## B. EMC Guidance and Manufacturer's Declaration

<b>Guidance and manufacturer's declaration-electromagnetic emissions</b>		
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.		
<b>Emission test</b>	<b>Compliance</b>	<b>Electromagnetic environment-guidance</b>
RF emissions CISPR 11	Group 1	The device uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class A	The product is suitable for use in all establishments other than domestic and those directly connected to a low voltage power supply network which supplies buildings used for domestic purposes.

<b>Guidance and manufacturer's declaration-electromagnetic immunity</b>			
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.			
<b>Immunity test</b>	<b>IEC 60601 test level</b>	<b>Compliance level</b>	<b>Electromagnetic environment-guidance</b>
Electrostatic discharge(ESD) IEC 61000-4-2	<u><math>\pm 8</math> kV contact</u> <u><math>\pm 2</math> kV, <math>\pm 4</math> kV,</u> <u><math>\pm 8</math> kV, <math>\pm 15</math> kV</u> <u>air</u>	<u><math>\pm 8</math> kV contact</u> <u><math>\pm 2</math> kV, <math>\pm 4</math> kV,</u> <u><math>\pm 8</math> kV, <math>\pm 15</math> kV</u> <u>air</u>	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%
Power frequency(50/60 Hz) magnetic field IEC 61000-4-8	<u>30 A/m</u>	<u>30 A/m</u>	The device power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE UT is the a.c. mains voltage prior to application of the test level.			

## Guidance and manufacturer's declaration-electromagnetic immunity

The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
Radiated RF IEC 61000-4-3	3 V/m 80MHz to 2,7 GHz	3 V/m <u>80MHz to 2,7 GHz</u>	<p><b>Recommended separation distance:</b>  <math>d = 1,2 \sqrt{P}</math>  <math>d = 1,2 \sqrt{P}</math> 80MHz to 800 MHz  <math>d = 2,3 \sqrt{P}</math> 800MHz to 2,5 GHz</p> <p>Where <math>P</math> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <math>d</math> is the recommended separation distance in metres (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey<sup>a</sup>, should be less than the compliance level in each frequency range<sup>b</sup>.</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 

NOTE1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the device is used exceeds the applicable RF compliance level above, the device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the device.

b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

### Recommended separation distance between portable and mobile RF communications equipment and the Device

The device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the device as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1,2\sqrt{P}$	80 MHz to 800 MHz $d = 1,2\sqrt{P}$	800 MHz to 2,7 GHz $d = 2,3\sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance  $d$  in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where  $p$  is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.



## II. Assembly






### Parts



Ultrasonic Height Stadiometer Rod A

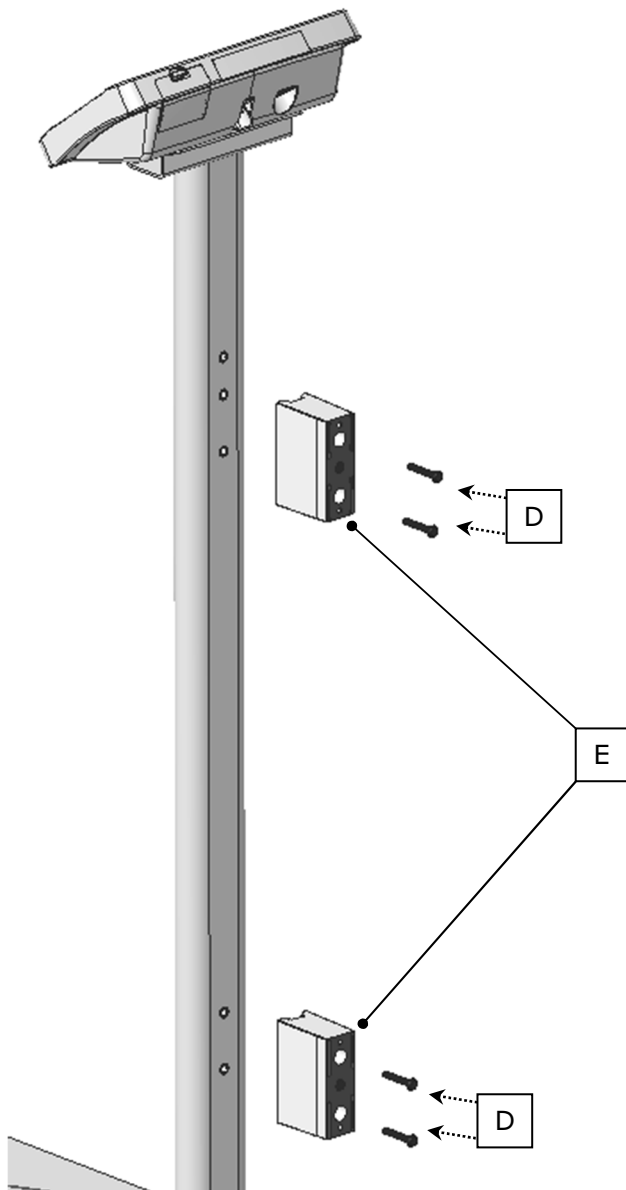


Ultrasonic Height Stadiometer Rod B

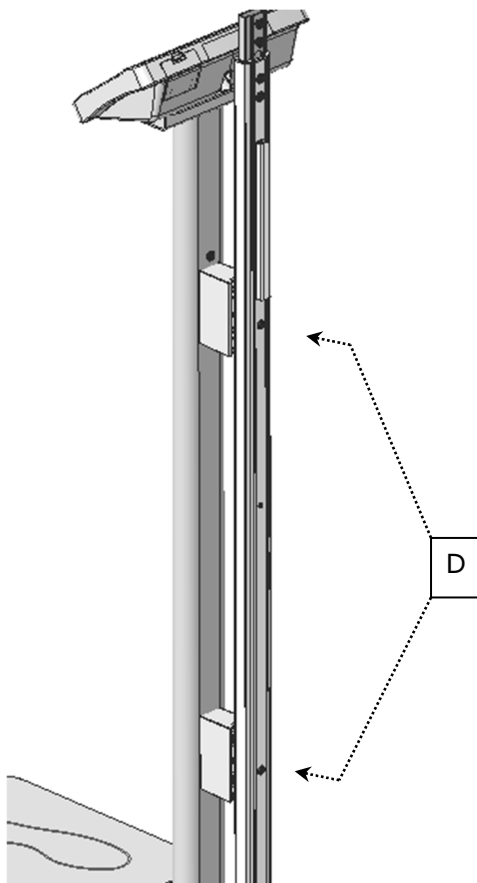
Parts No.	Included Parts Name	Diagram	Qty.
C	Phillips round combo screw (for attaching headpiece to metal rod)		1
D	Round-head screw (longer) (for attaching fixing block to column)		6
E	Fixing block (for attaching stadiometer to column)		2
F	Round-head screw (shorter)		2
G	Rubber Gasket (for assembling stadiometer together)		1

## A. Installation

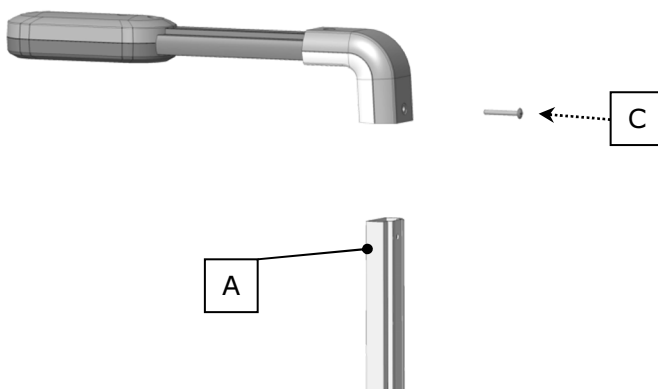
- a. Use 4 longer round-head screws **[D]** to attach fixing blocks **[E]** to column.



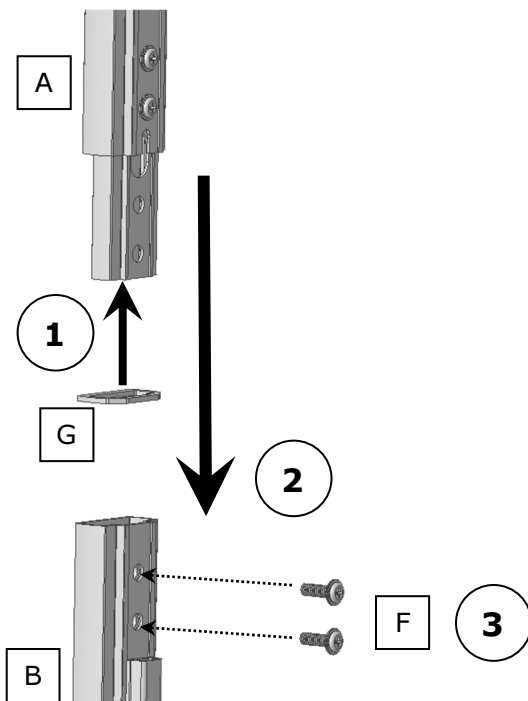
b. Use longer round-head screws **[D]** to attach rod **[B]** to fixing blocks.



c. Use Phillips round combo screw **[C]** to attach headpiece to rod **[A]**.

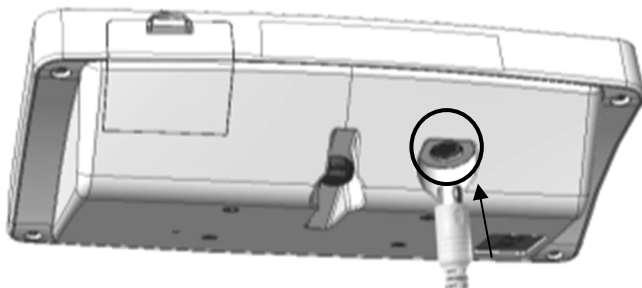


d. Slide rubber gasket **[G]** into rod **[A]**. Insert rod **[A]** into rod **[B]** and use round-head screws **[F]** to secure rods together.



### **B. Connecting Height Stadiometer Cable**

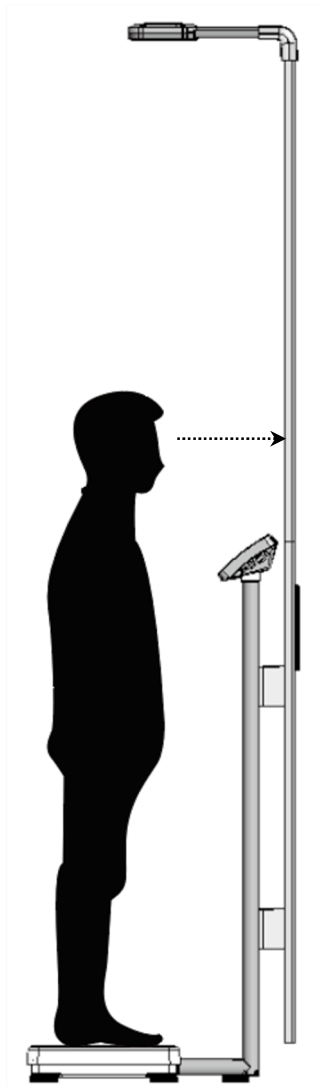
Locate 6 pin DIN port on bottom of indicator, and connect transfer cable.



### III. Using Device

Stand still and look forward to ensure height measurement accuracy.

The device will automatically measure height and transfer result to weighing scale. Indicator will display weight, height and BMI.



## IV. Product Specifications

<b>Model</b>		<b>HM200U</b>
<b>Height Measurement</b>	<b>Range</b>	120-200 cm
	<b>Graduation</b>	0.1 cm
	<b>Accuracy</b>	±1.2 cm
<b>Dimensions (approximate)</b>	<b>Overall</b>	500(L) x 61(W) x 2083(H) mm
	<b>Device weight</b>	1.0kg
<b>Data Transmission</b>		Transfer cable to indicator
<b>Operation Temperature &amp; Humidity</b>		5°C~35°C 15%~85% RH





### **Manufacturer's Declaration of Conformity**

This product has been manufactured in accordance with the harmonized EU / UK standards, following the provisions of the below stated directives:

Electromagnetic Compatibility Directive 2014/30/EU  
Electromagnetic Compatibility Regulations 2016

Low Voltage Directive 2014/35/EU  
Electrical Equipment (Safety) Regulations 2016

RoHS Directive 2011/65/EU and Delegated Directive (EU) 2015/863



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