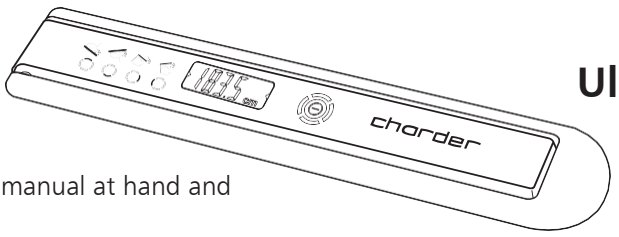
charder

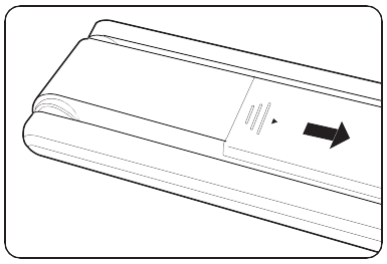


HM250U
Ultrasonic Height Meter

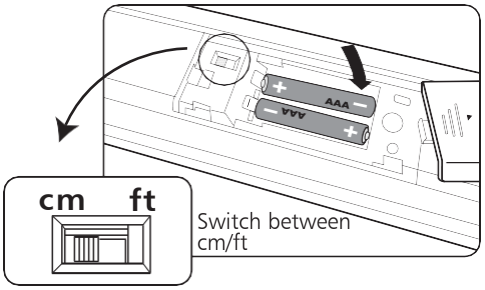
USER MANUAL

* Please keep the instruction manual at hand and follow instruction for use.

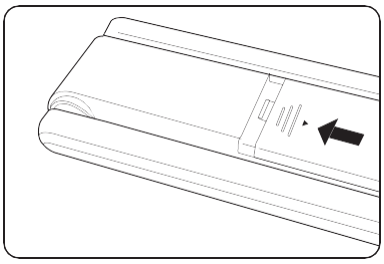
Inserting Batteries



1. Open battery housing cover on back of device



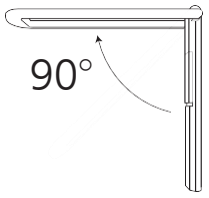
2. Insert 2 AAA batteries

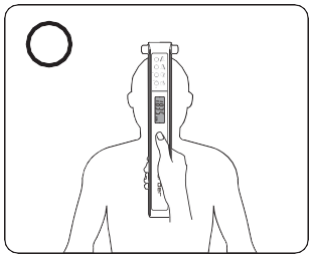


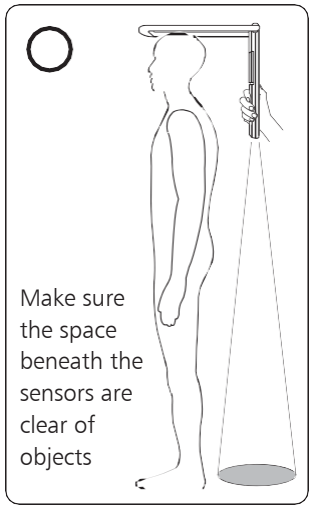
3. Close battery housing cover

Preparing for measurement

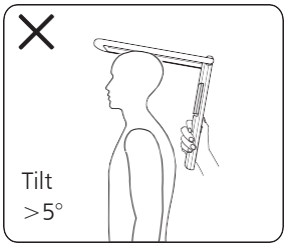
Correct operation

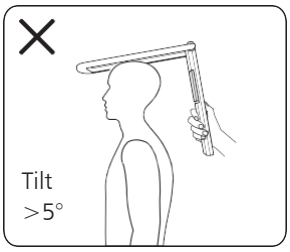


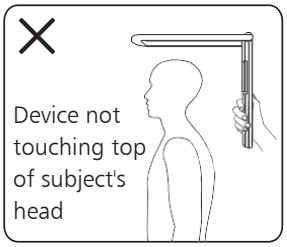


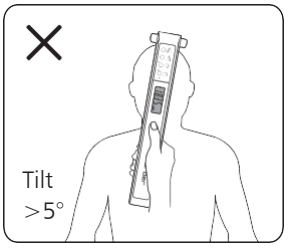


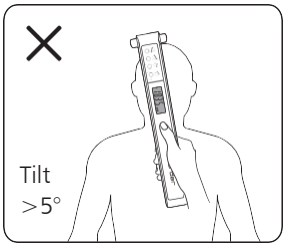
Incorrect operation

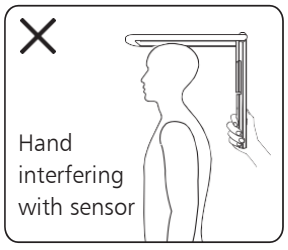


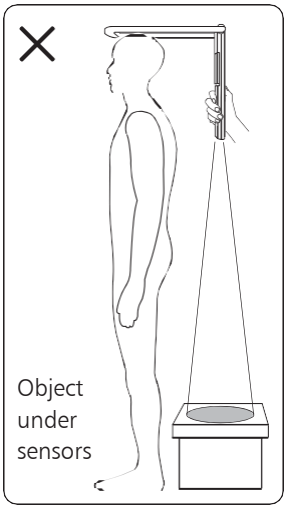


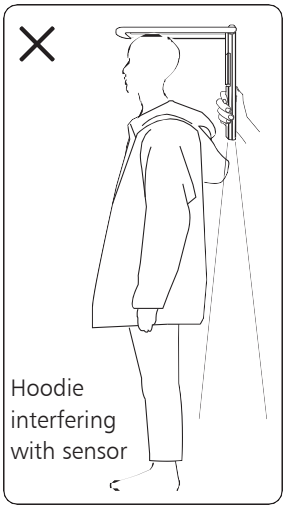


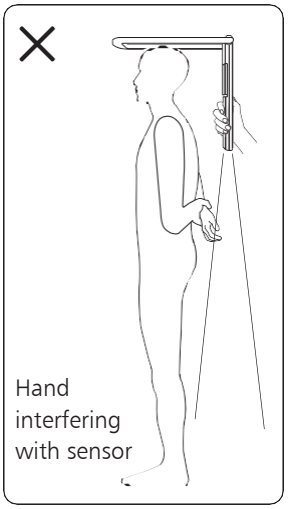






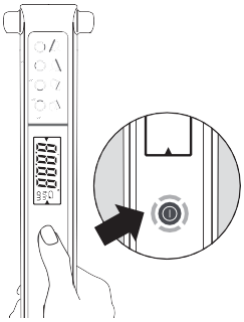




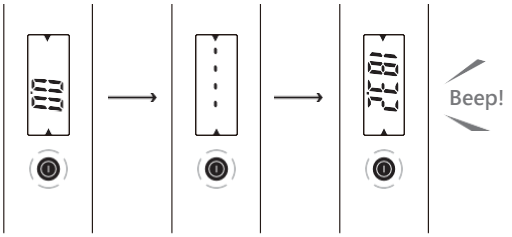


Operating instructions

1. Press ⏻ to turn on device



2. When screen displays 0.0 cm , press ⏻ again to measure height



3. After measurement completion*, press ⏻ again to conduct next measurement

4. Press and hold ⏻ to turn off device. The device will automatically turn off after 20 seconds if not used

∗NOTE: on wireless model, results will be transferred automatically to receiving device

Specifications

Model		HM250U
Height Measurement	Capacity	50-250 cm 1'8"-8'0"
	Graduation	0.1 cm / 0.1 in
	Accuracy	+/- 1.5 cm
	LCD screen	50 x 20 mm
Dimensions	Folded	349(W) x 64(D) x 23(H) mm
	Unfolded	349(L) x 315(D) x 30(H) mm
Device Weight		190 g(without batteries)
Key Functions		On/Off/Measure
Power Supply		2 x AAA batteries
Operation Environment		+10℃～+35℃ ,15% / 85% RH
		700 hPa ～1060 hPa
Sensor		Ultrasonic
Level Detection		G-sensor
Tilt Warning		＞5°
Auto-off		20 seconds
Data Transmission		Wireless (optional)

NOTE : Device should be connected to network by qualified distributors only.

CAUTION

If tilt exceeds 5°, orange tilt warning lights will appear, and measurement will not proceed. Please adjust the angle of the device until tilt warning lights disappear to conduct measurement.

Error Messages

Height exceeds 250cm / 8'

Height under 50 cm / 1'8"

Low battery

Declaration of Conformity

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

CE 2460	**(EU) 2017/745 Regulation on Medical Devices**
CE M year	**2014/31/EU Non-automatic Weighing Instruments Directive** (OIML models only)

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

Radio Equipment Directive 2014/53/EU
(applicable if wireless module is used)

Part 15 of the Federal Communications Statement Rules
This device may not cause harmful interference.
This device must accept any interference received, including interference that may cause undesired operation.

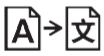
Please see separate document showing on sticker of device for above markings.

Authorized EU Representative:

EC REP **Obelis s.a.**
Bd Général Wahis, 53
B-1030 Brussels
Belgium

Manufactured by:
Charder Electronic Co., Ltd.
No. 103, Guozhong Rd., Dali Dist., Taichung City, 41262 Taiwan

Explanation of Graphic Symbols on Label/Packaging

	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		Medical electrical device, Type BF applied part
REF	Device catalogue number / model number	EC REP	Name and address of authorized representative in the European Union
MD	Device is a medical device. Text indicates device category type	LOT	Manufacturer's batch or lot number for device
SN	Device's serial number	UDI	Device's Unique Device Identifier
	Verification Scale Interval. Value expressed in units of mass. Used to classification and verification of an instrument.	CE 2460	Device conforms to (EU) 2017/745 Regulation on Medical Devices. Four digit number is identifier for medical device Notified Body
	Device is a Class III scale in compliance with Directive 2014/31/EU (verified models only)		Name and address of entity importing device (if applicable)
	Name and address of entity responsible for translating Information For Use (if applicable)	CON.	Event counter confirming how many times device has been calibrated (if applicable)
	Device conforms to Taiwan National Communications Commission (NCC) approval	FC	Device conforms to U.S. Federal Communications Commission regulations
UK CA	Device complies with all UK applicable product legislation		Device's polarity of power.

CE M 20 0122	Device complies with EC directives (verified models only) **M**: Conformity label in compliance with Directive 2014/31/EU for non-automatic weighing instruments **20**: Year in which conformity verification was performed and the CE label was applied. (ex: 16=2016) **0122**: Identifier for metrology Notified Body
UK CA M 20 8506	Device complies with UK non-automatic weighing instruments regulations 2016 (verified models only) **M**: Conformity label in compliance with Non-automatic Weighing instruments Regulations 2016 **20**: Year in which conformity verification was performed and the UKCA label was applied. (ex: 20=2020) **8506**: Identifier for metrology approved body

"In case of differences, icon on device itself takes precedence"

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.

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.

Intended medical indications/contraindications
Measurement: subject's body height.

Intended patient profile
(a) Age: no restrictions
(b) Weight: no restrictions
(c) Patient Conditions: require measurement of body height. Can physically fit within device capacity limits and be able to stand straight (non-infant versions only).

Intended user profile
(a) At least 20 years old
(b) Minimum knowledge:
- To be able to read at a high-school level and understand Arabic numerals (e.g. 1, 2, 3, 4...)
- Basic hygiene knowledge
- Trained in device's operation
- Read the instruction manual

(c) Language
-Able to read the language of instruction manual and on-screen instructions
(d) Qualifications
- No special certifications or qualifications required

Residual risk evaluation
(a) All foreseeable risks have been evaluated and considered acceptable. Generally speaking, the most likely risk caused by incorrect usage of the device is less accurate measurement (or inability to use device to acquire measurement), which does not pose imminent physical risk to patient or user.
(b) Benefit-risk ratio is considered acceptable. Height measurement meters are an important option for measuring patients. Usage of device is unlikely to result in harm to user or patient.

General Handling
Measurement accuracy requires the subject's feet, back, and head to be straightly aligned.

Safety Instructions
- Batteries should be kept away from children. If swallowed, promptly seek medical assistance.
- Expected service life: 5 years.
- Observe permissible ambient temperatures for use

Environmental & Cleaning
- All batteries contain toxic compounds; batteries should be disposed of via designated competent organizations. Batteries should not be incinerated.
- Device surface should be cleaned using alcohol-based wipes.

Maintenance
Please contact your local Charder distributor for regular maintenance and calibration, regular checking of accuracy is recommended; frequency to be determined by level of use and state of device.

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, use, modifications, natural wear and tear, or dropping onto the floor.
- This device does not contain any user-maintained parts. All maintenance, technical inspections, and repairs should be conducted by an authorized Charder service partner, using original Charder accessories and spare parts.

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.

EMC Guidance and Manufacturer's Declaration

Guidance and manufacturer's declaration-electromagnetic emissions

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

Emission test	Compliance	Electromagnetic environment-guidance
RF emissions CISPR 11	Group 1	The product 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.

Guidance and manufacturer's declaration-electromagnetic immunity

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

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
Electrostatic discharge(ESD) IEC 61000-4-2	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air	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	30 A/m	30 A/m	The product 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 product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that is used in such and environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
Radiated RF IEC 61000-4-3	3 Vrms 80 MHz to2.7 GHz	3 Vrms 80 MHz to 2.7 GHz	**Recommended separation distance:** G 1,2 ¥3 G 1,2 ¥3 80MHz to 800 MHz G 2,3 ¥3 800MHz to 2,7 GHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, a should be less than the compliance level in each frequency rangeb. Interference may occur in the vicinity of equipment marked with the following symbol: 

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.

EMC Guidance and Manufacturer's Declaration

Recommended separation distance between portable and mobile RF communications equipment and the product

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 G 1,2¥3	**80 MHz to 800 MHz** G 1,2¥3	**800 MHz to 2,7 GHz** G 2,3¥3
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.

Notes

CD-IN-00387 REV005 08/2024