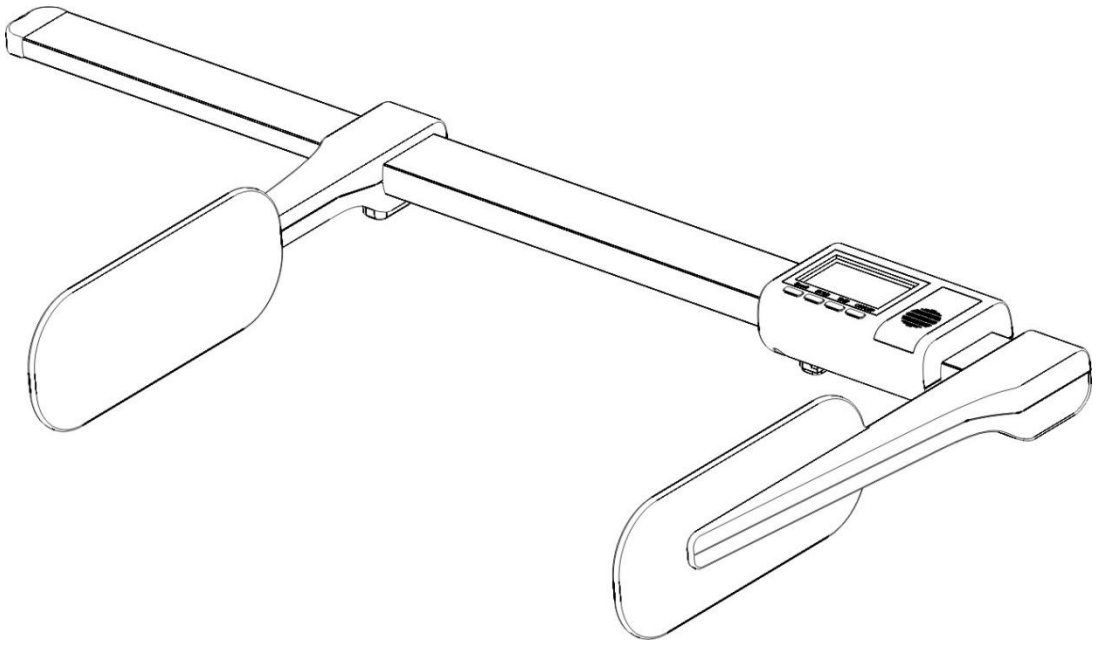
charder®

Height Measurement

USER MANUAL
HM80D
Digital Infant Stadiometer

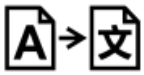


Please keep the instruction manual at hand and follow instruction for use.

CONTENTS

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
	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
e	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. Fourdigit number is identifier for medical device Notified Body

	Device complies with EC directives (verified models only)
CE M 20 0122	**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
	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
	Device conforms to U.S. Federal Communications Commission regulations
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
UK CA	Device complies with all UK applicable product legislation
	Device's polarity of power.

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

Copyright Notice

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Ⅰ. Safety Notes

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.

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.

Safety instruction

⚠ Before putting the device into use, please read with care the information given in the Operating Instructions. They contain important instructions for installation, proper use and maintenance of the device.

The manufacturer shall not be liable for damages arising out of failure to heed the following instructions:

- When using electrical components under increased safety requirements, always comply with the appropriate regulations.
- Improper installation will render the warranty null and void.
- Ensure the voltage marked on the power supply unit matches your mains power supply.
- This device is designed for use indoors.
- Observe the permissible ambient temperatures for use.
- The device meets the requirements for electromagnetic compatibility.
- Do not exceed the maximum values specified in the applicable standards.

If you have any problem, please contact your local CHARDER MEDICAL service partner.

Cleaning

- Only the original adapter should be used with the device. Using an adapter other than the one provided by Charder may cause malfunction
- Do not touch the power supply with wet hands.
- Use only a correctly wired (100-240VAC) outlet, and do not use a multiple outlet extension cable.
- Do not crimp the power cable, and avoid sharp edges.
- Do not overload extension cables connected to the device.

Using Batteries

- Only the specified batteries should be inserted in the correct polarity.
- If the device will not be used for an extended period of time (>3 months), please remove batteries to avoid device damage.
- Do not mix old and new batteries.
- Batteries should be kept away from children. If swallowed, promptly seek medical assistance.
- Batteries should be recycled/disposed of via designated competent organizations. Batteries should not be incinerated.

General Handling

- Device is a precision measurement instrument, please handle with care.
- Device should be placed on stable, flat, solid, non-slippery surface. Usage on soft surfaces (ex: carpet) may result in inaccurate results.
- Avoid stepping on the edge of the platform or the LCD screen.
- Device is intended to measure one subject at a time.

Cleaning

- We would recommend using alcohol based wipes or similar when cleaning the devices.
- Please do not use large amounts of water when cleaning the devices as this will cause damage to the devices electronics, you should also refrain from using corrosive liquids or high pressure washers.

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

A two-year warranty from date of delivery applies to defects attributable to poor materials or workmanship. All moveable parts batteries, cables, mains units, rechargeable batteries etc.- are excluded. Defects, which come under warranty, will be made good for the customer at no charge on production of the receipt. No further claims can be entertained. The costs of transport in both directions will be borne by the customer should the equipment be located anywhere other than the customer's premises. In the event of transport damage, claims under warranty can be honored only if the complete original packaging was used for any transport and the scale secured and attached in that packaging just as it was when originally packed. All the packaging should therefore be retained.
A claim under warranty will not be honored it the equipment is opened by persons not expressly authorized by Charder to do so.
We would ask our customers abroad to contact their local sales agent in the event of a warranty matter.

PLEASE VISIT WWW.CHARDERMEDICAL.COM FOR MORE INFORMATION.

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.

Ⅱ. EMC Guidance and Manufacturer's

Guidance and manufacturer’s declaration-electromagnetic emissions		
The product isintended 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 RFenergy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronicequipment.
RF emissions CISPR 11	Class A	The product is suitable for use in all establishments other than domesticand 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 hospitalenvironment.
NOTE UT is the a.c. mains voltage prior to application of the testlevel.			

Guidance and manufacturer's declaration-electromagnetic immunity			
Theproduct 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 V/m 80MHz to 2,7 GHz	3 V/m 80MHz to 2,7 GHz	**Recommended separation distance:** $d = 1,2 \sqrt{P}$ $d = 1,2 \sqrt{P}$ 80MHz to 800 MHz $d = 2,3 \sqrt{P}$ 800MHz to 2,7GHz 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 range.[b] Interference may occur in the vicinity of equipment marked with the following symbol: 
NOTE1 At 80 MHz and 800 MHz, the higher frequency rangeapplies. NOTE2 Theseguidelinesmaynotapplyinallsituations.Electromagneticpropagationisaffectedbyabsorptionand reflection from structures, objects andpeople.			
a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios,amateurradio,AMandFMradiobroadcastandTVbroadcastcannotbepredictedtheoreticallywithaccuracy.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 product is used exceedstheapplicable RF compliance level above, the product should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the product. . b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.			

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

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

III. Key

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- ON/OFF
  Press ON/OFF key to switch on and off length rod measurement.

- UNIT
  Press UNIT key to select measuring unit (cm and inch).

- HOLD
  HOLD key is for user to memorize length reading. It is for user to check the reading again after measuring process. Press to enable function and press again to disable function.

- RESET
  RESET key is for user to calibrate false reading. Slide right feet piece to the left at length of 35cm. Press RESET key to calibrate HM80D. LCD will display 35.0cm which means HM80D has been well calibrated.

IV. Specification

Measuring range: 35 ~ 80cm / 13 $\frac{3}{4}$ ~ 31 $\frac{1}{2}$ inch

Graduations: 1mm / $\frac{1}{16}$ inch

Dimensions (WxHxL): 29 x 7 x 62 cm

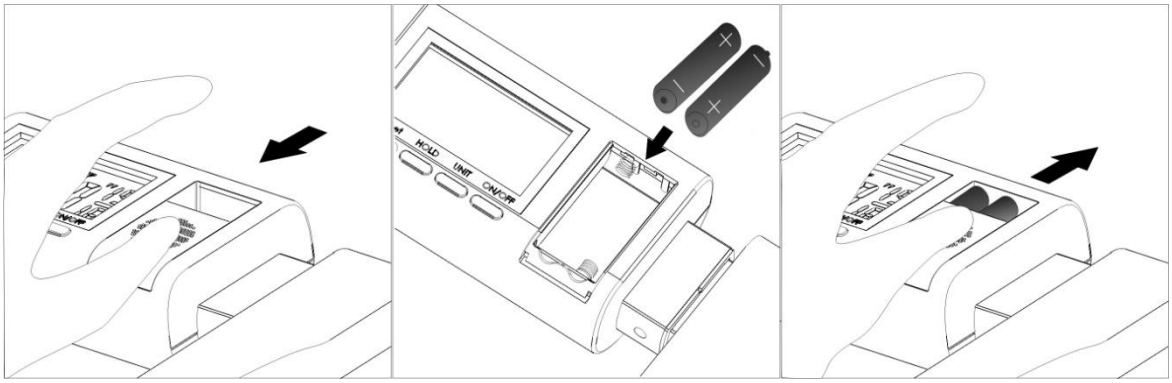
Weight: 700g

Accuracy: ±10mm

Temperature range: +5℃ up to +35℃

No.	Items	Spec.	Qty.
1	HM80D	digital baby length	1
2	User manual	IN-1072 [8056]	1
3	Battery	AAA 1.5V	2
4	Bracket set for baby tray (option)	SS-5611	1
5	Bracket set for MS2400 (option)	SS-5621	1
6	Bracket set for MS5900 (option)	SS-6111	1

V. Install battery

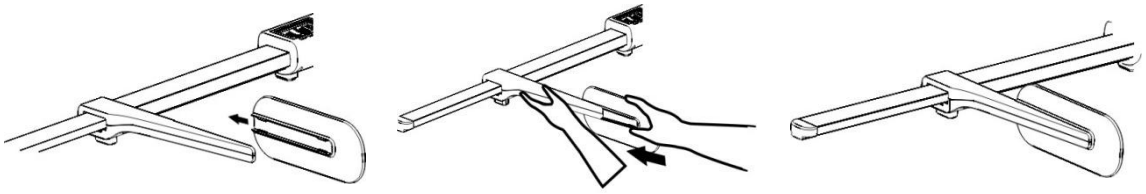


Installing battery AAA 1.5V x 2 in battery housing next to LCD display

VI. Trouble shooting

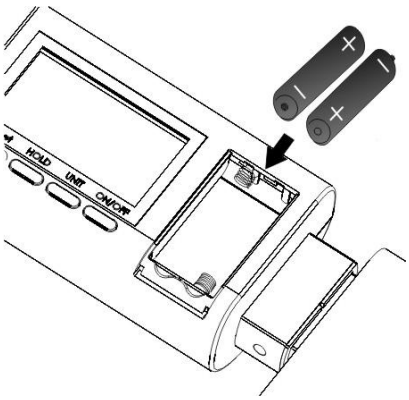
1. If feet piece is loose please re-assemble feet piece as below.

1. 2. 3.

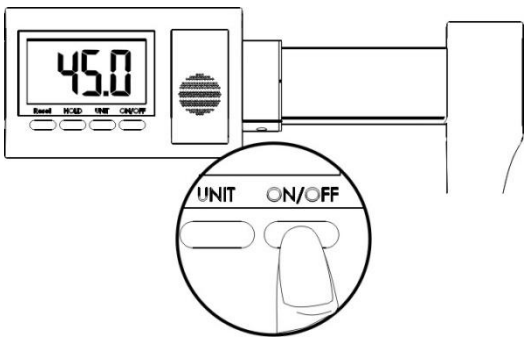


VII. Calibration

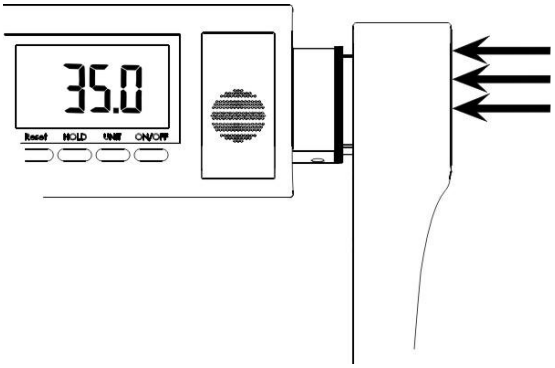
2. If the reading shows error, please follow RESET procedure for calibration.



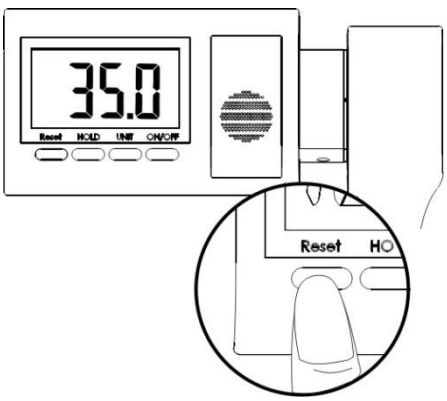
1. Installing battery.



2. Press ON/OFF to switch on LCD.

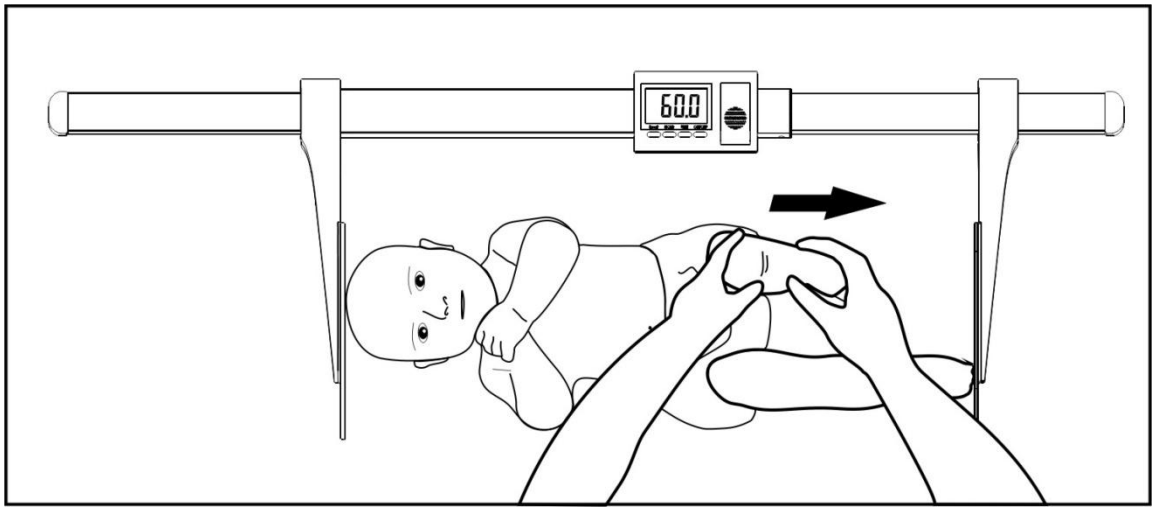


3. Sliding feet piece left to the end.

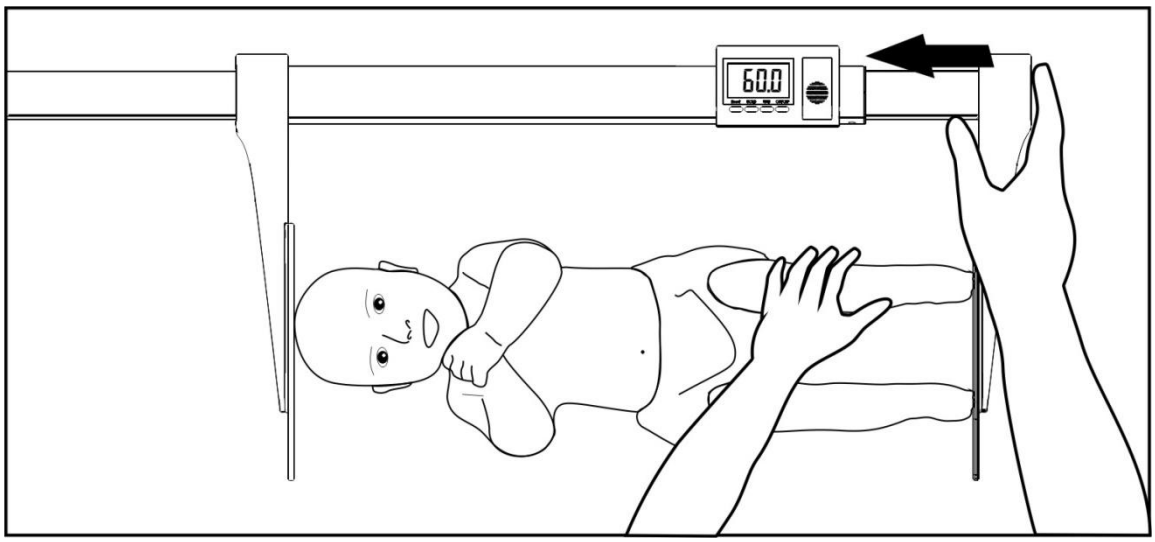


4. Press RESET button to calibrate at 35.0cm.

VIII. How to measure



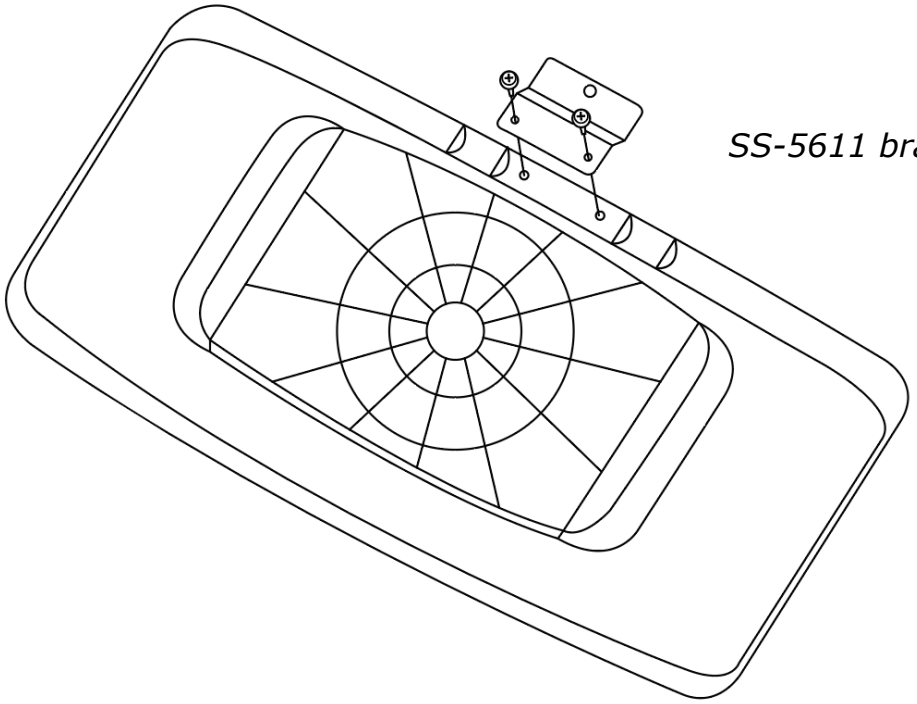
1. Lightly slide feet piece left against the sole of baby.



2. Sliding feet piece left till it touches the sole of baby.
3. The LCD is displaying length of baby.
4. Press HOLD button to memorize the reading of length.
5. Recording the reading.
6. Press HOLD again to disable the function and return to normal mode.

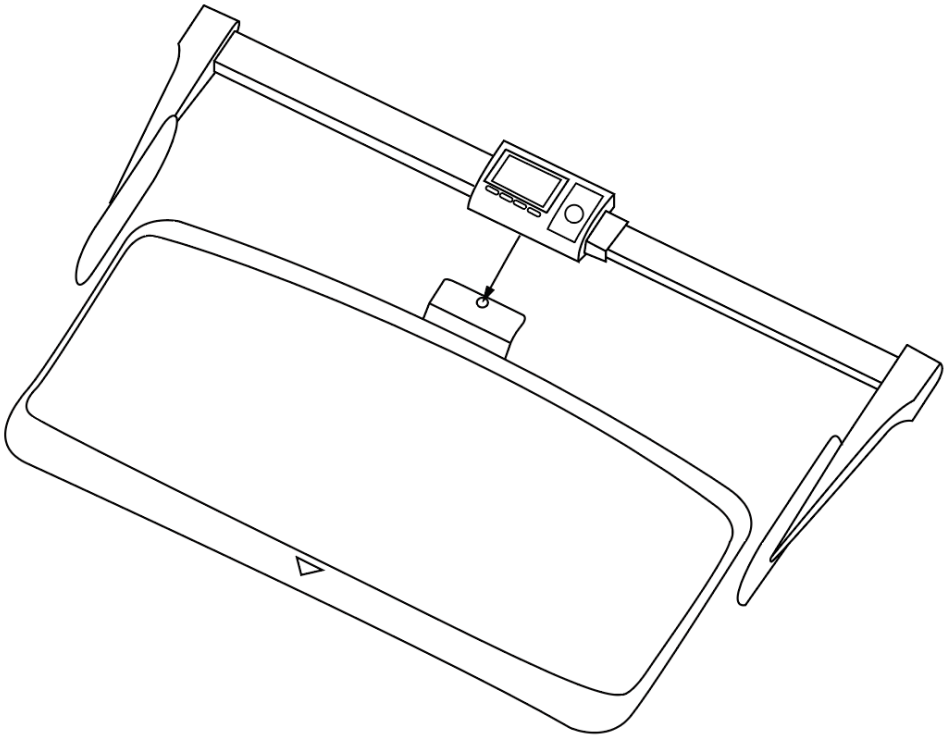
IX. Assembly with removable baby

A. Fix bracket on the tray with two screws.

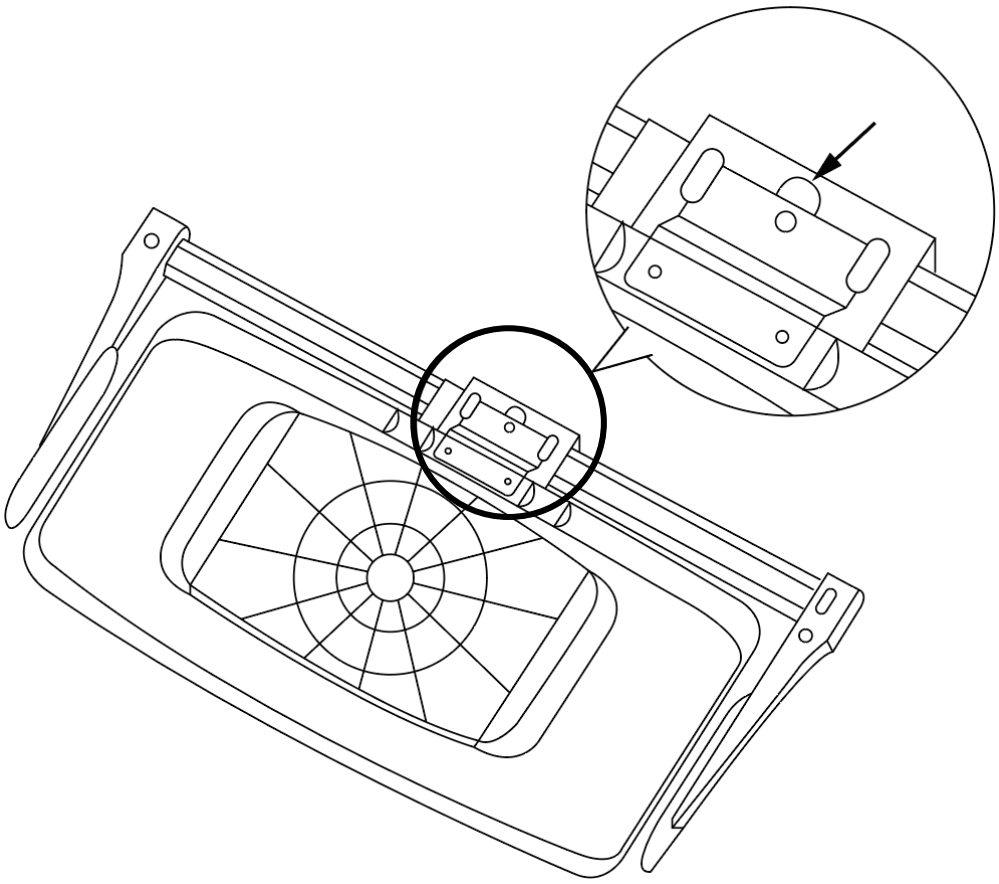


SS-5611 bracket

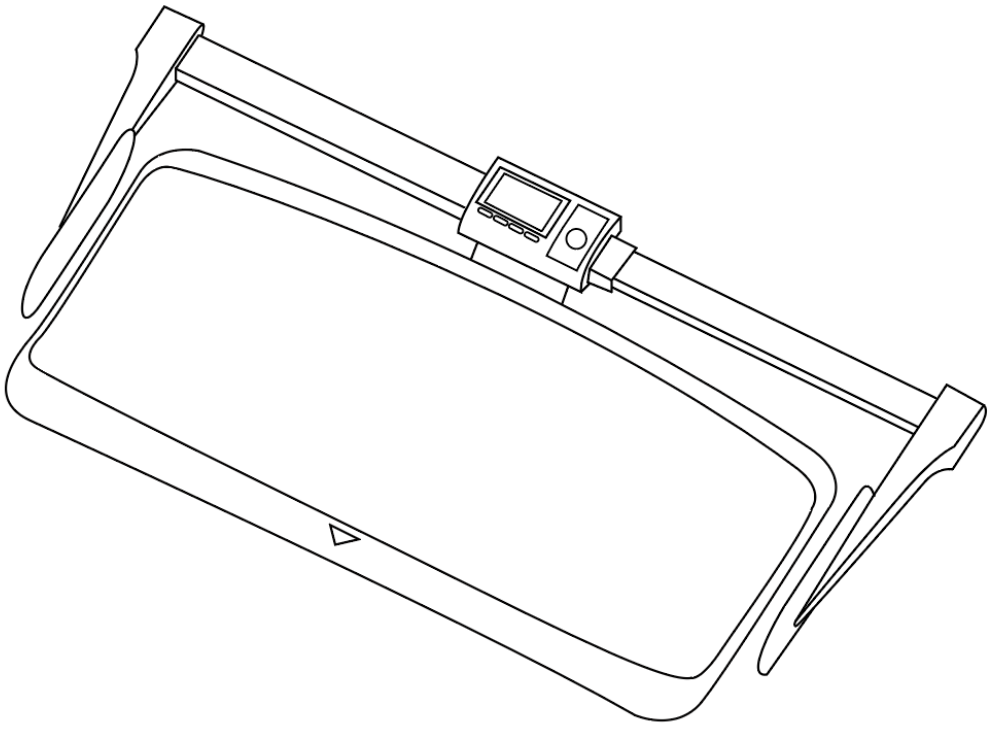
B. Assemble HM80D with scale together.



C. Press the buckle to secure HM80D is welled installed.

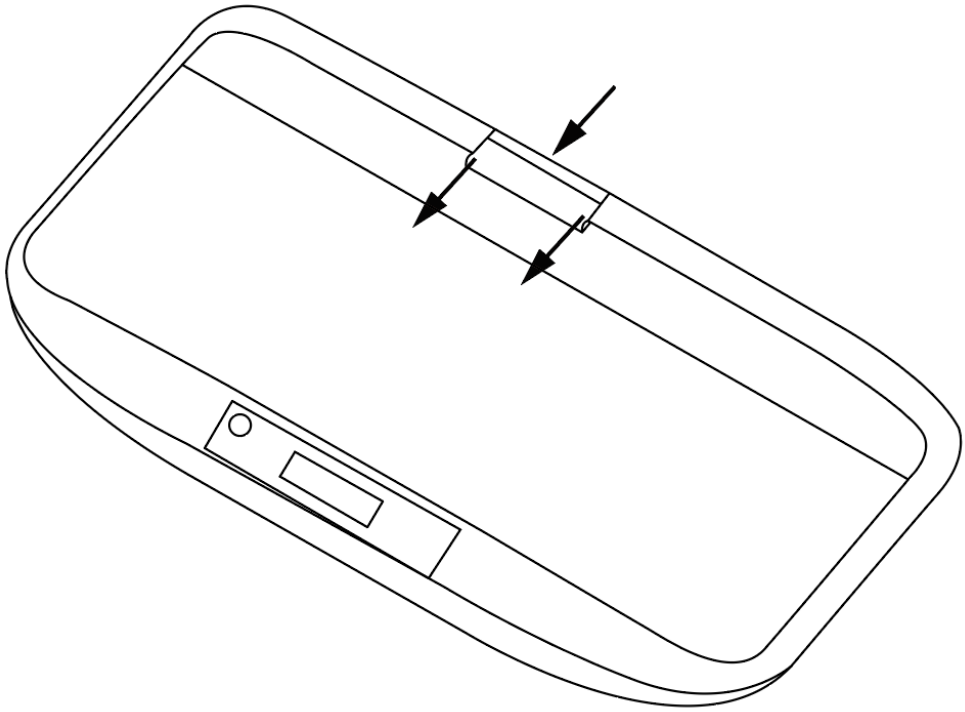


D. Assemble completed.

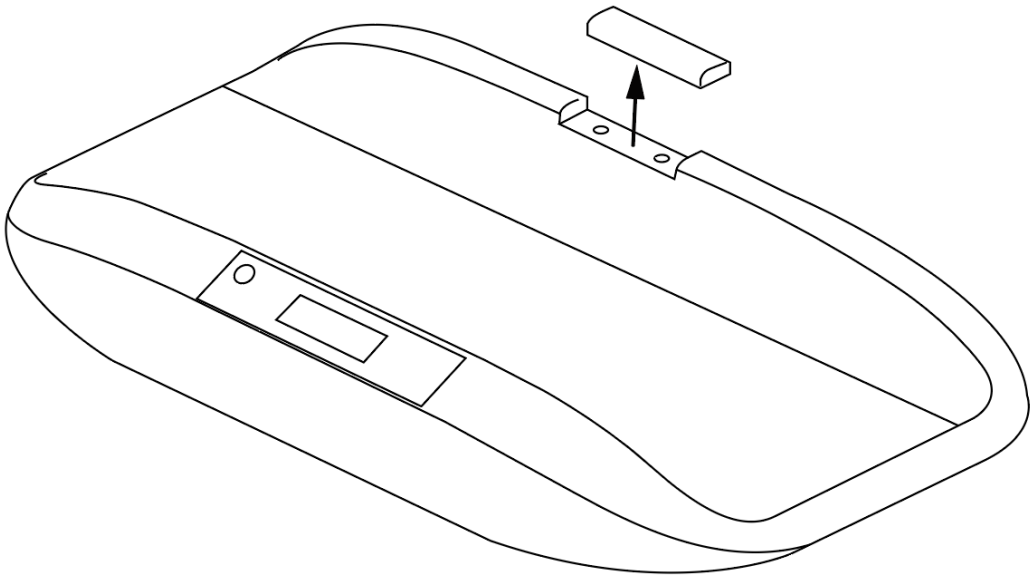


1. Assembly with MS5900 baby scale

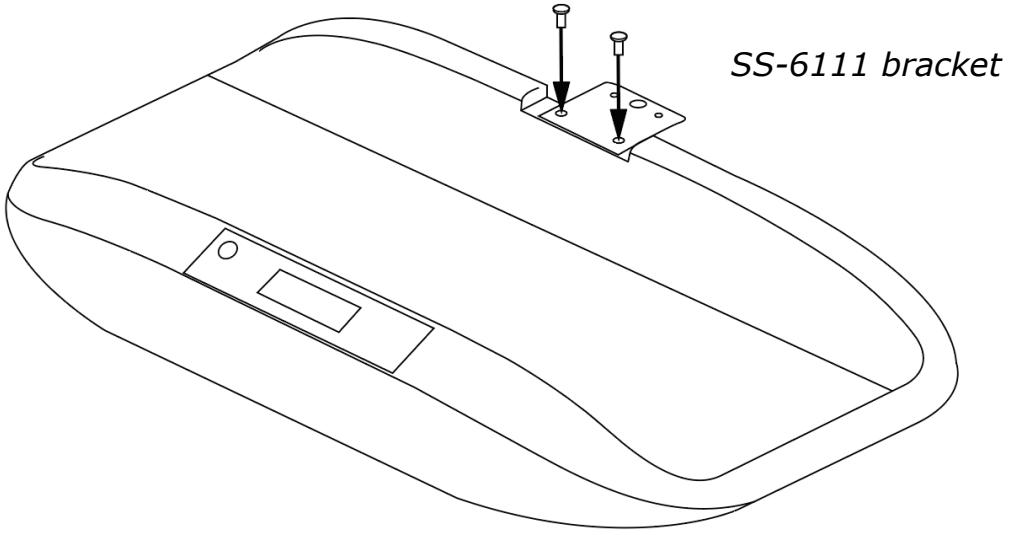
A. Remove bracket holder cover.



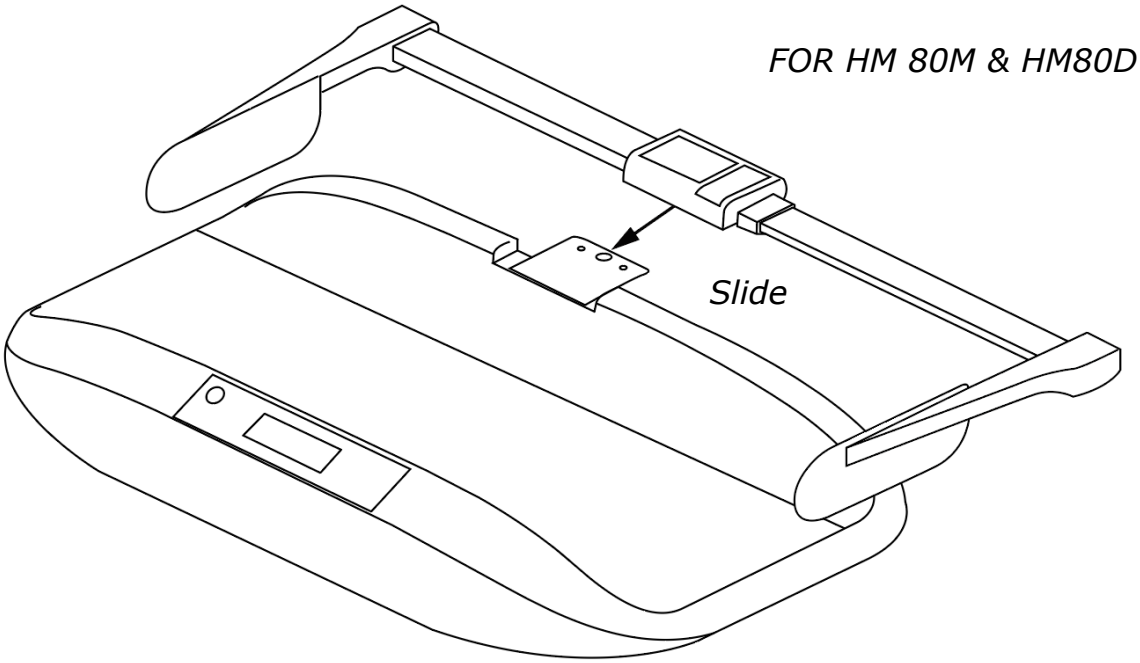
B. Take off bracket holder cover.



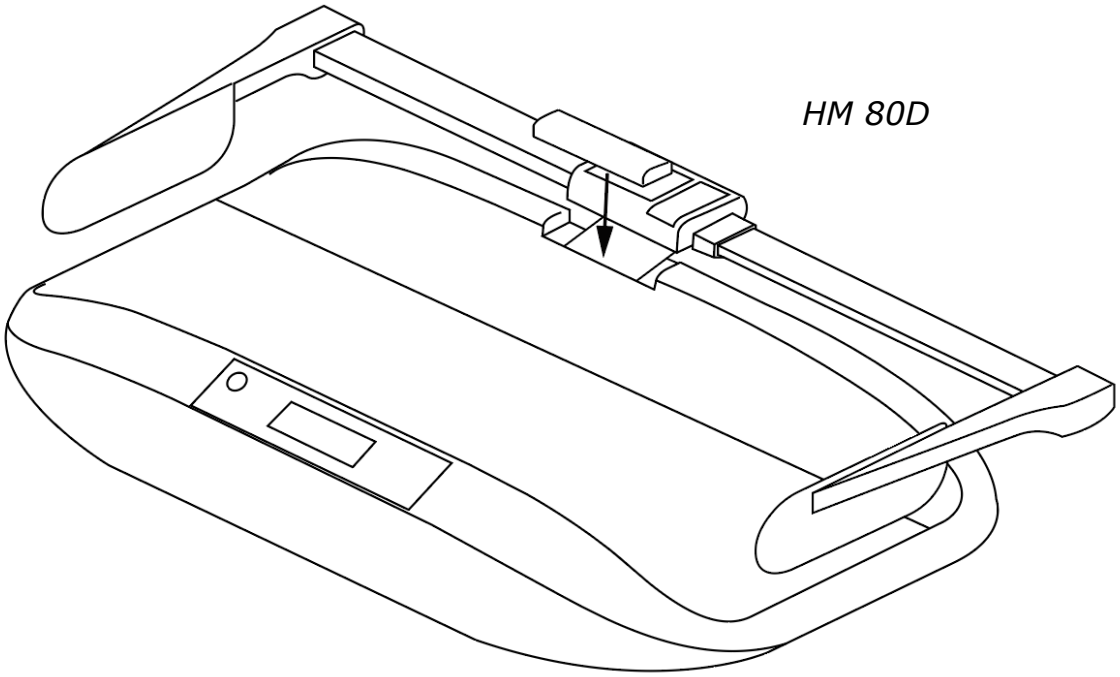
C. Fixing bracket with two screws.

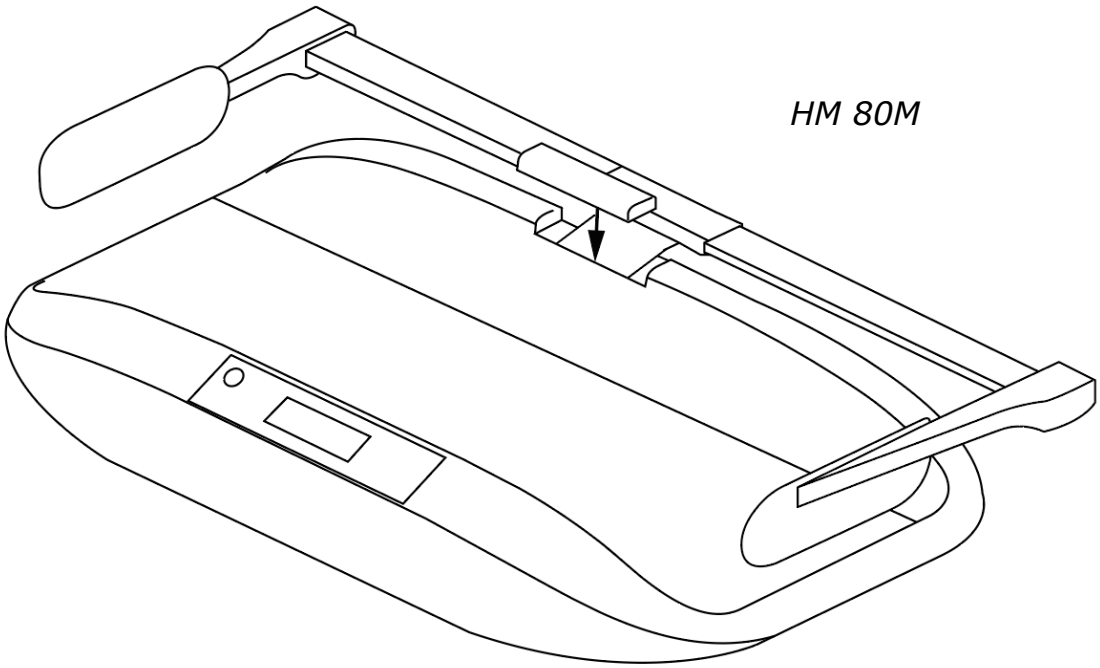


D. Assemble baby height rod with the bracket carefully until click.



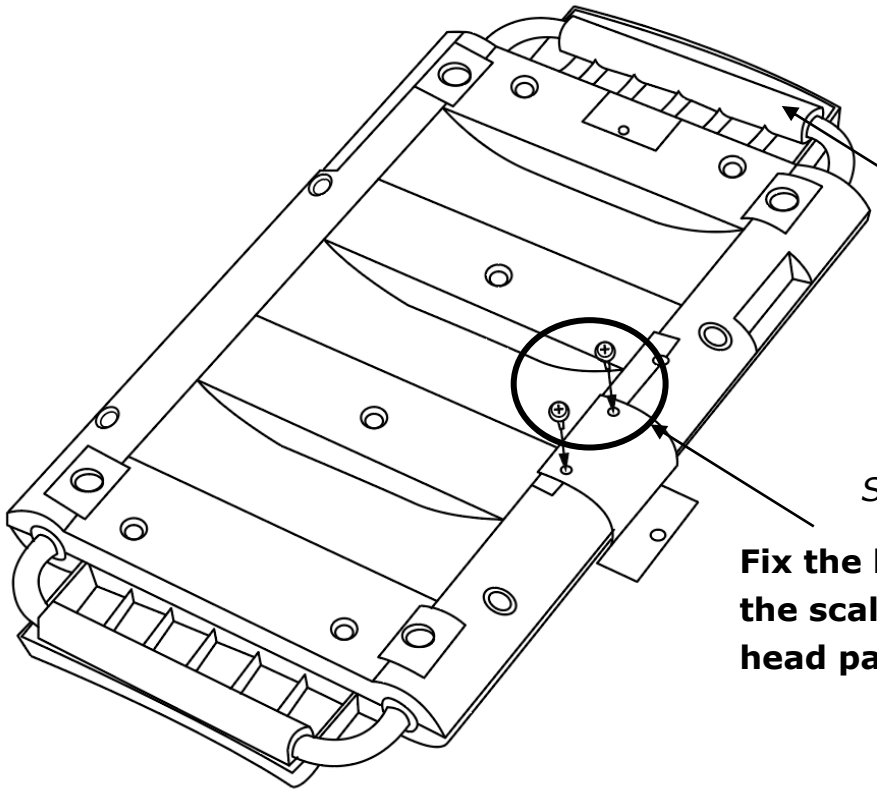
E. Install the bracket holder cover.

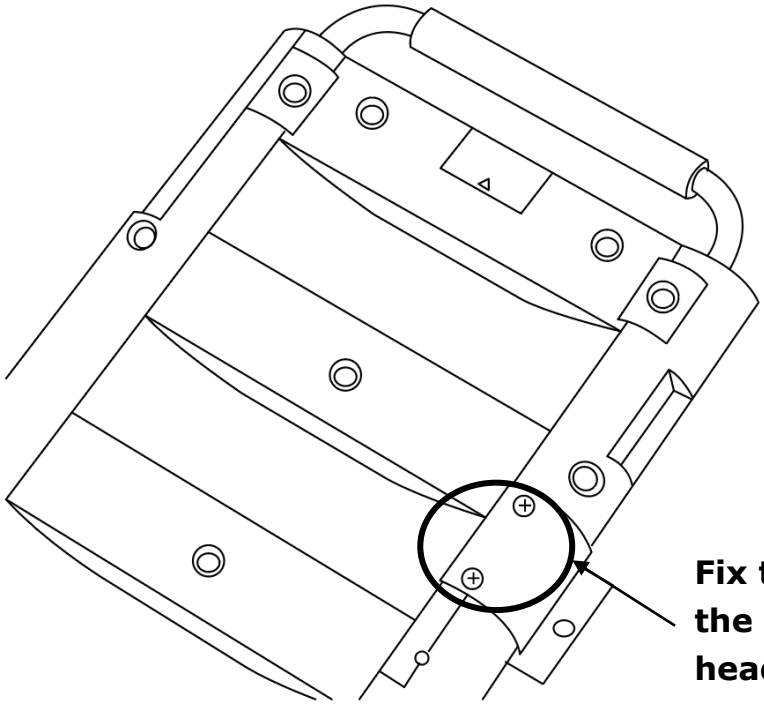




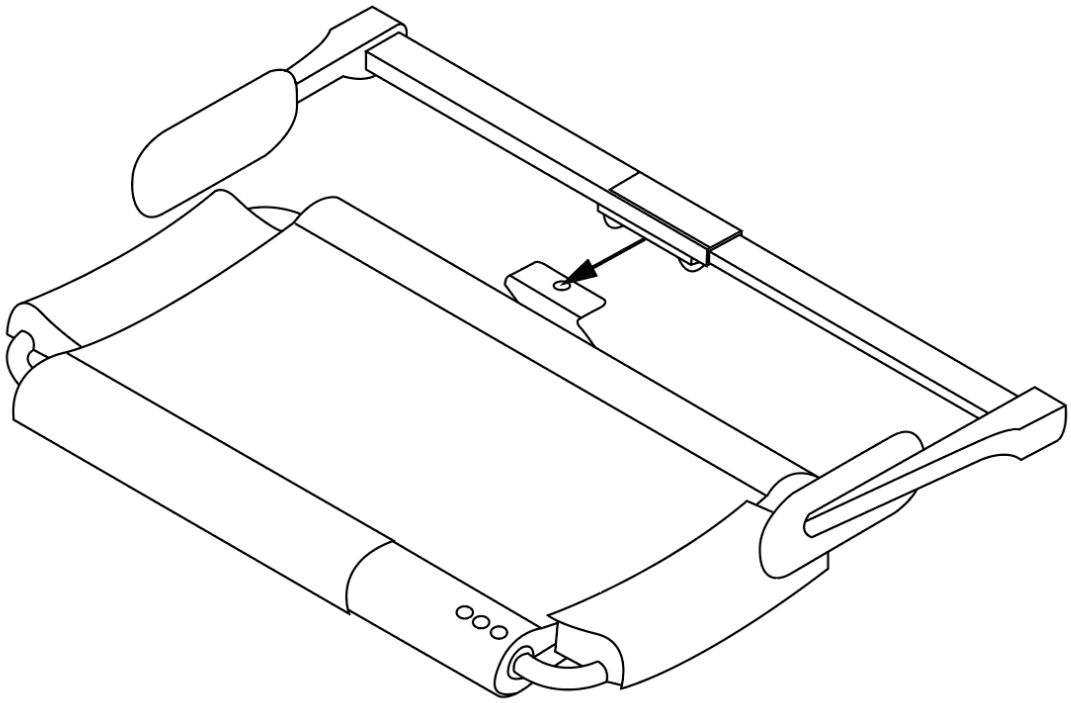
X. Assembly with MS2400 baby scale

A. Place the bracket and tighten the screw with screw driver.





B. Assemble baby height rod with the bracket carefully until click.



XI. Manufacturer's Declaration of

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

CD-IN-1072 [8056I] 08/2024