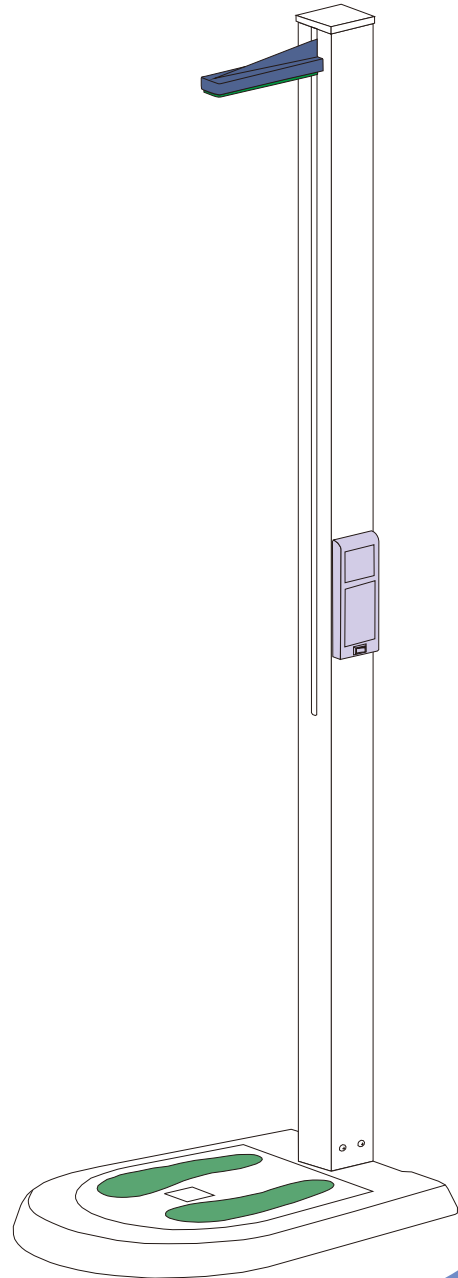


## Height & Weight Auto Measuring Scale

English Manual

**DS-103M**



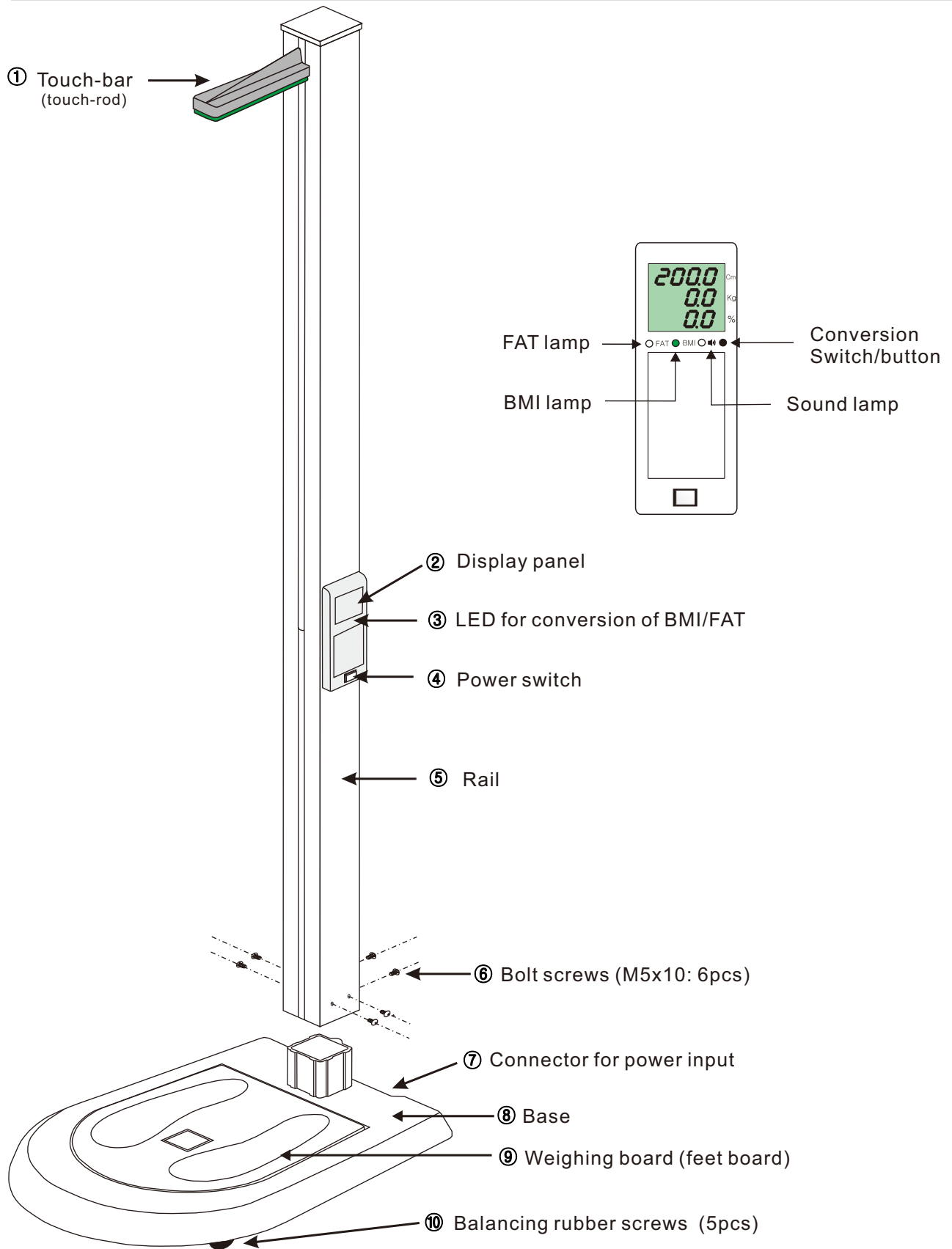
# Contents

DS-103M

<b>1</b>	<b>Structures</b> .....	<b>2</b>
<b>2</b>	<b>Assembling Procedures</b> .....	<b>3</b>
<b>3</b>	<b>How to use</b> .....	<b>4</b>
<b>4</b>	<b>Conversion of BMI, Fatness and Sound</b> ----	<b>5</b>
<b>5</b>	<b>Correction of weight error</b> .....	<b>6</b>
<b>6</b>	<b>BMI &amp; FAT categories</b> .....	<b>7</b>
<b>7</b>	<b>Trouble shooring</b> .....	<b>8</b>
<b>8</b>	<b>Specifications</b> .....	<b>9</b>



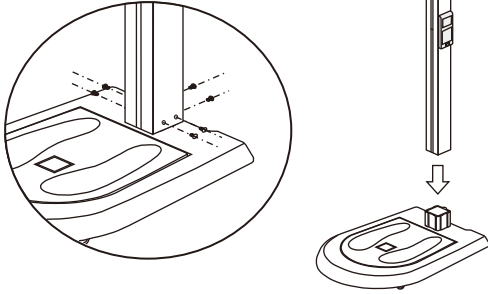
# 1. Structures



## 2. Assembling procedures

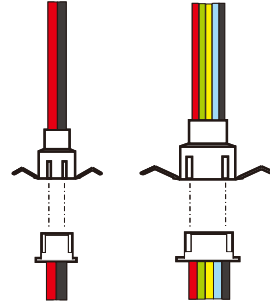
### Assembling

**Step 1** Put together rail ⑤ & base⑧, then, screw 6pcs bolts tight as in the drawing.



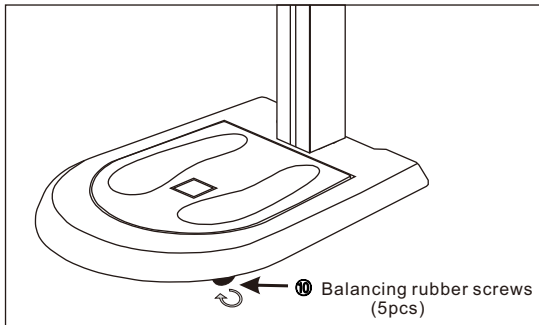
### Step 2

Lay down the body on its side and join 2 pairs of connectors in the bottom of the base, according to the same colors and shapes. 2 connectors from the rail and the rest 2 from the base.

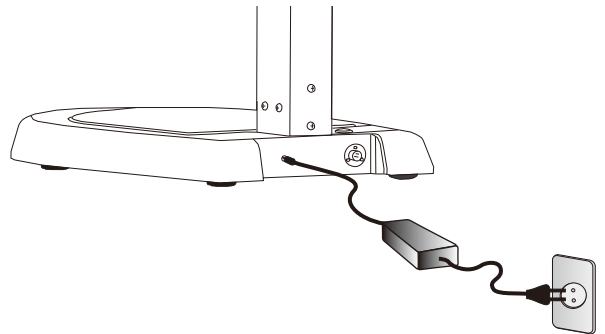


### Step 3

Make the scale horizontal by using 5pcs of rubber screws ⑩. Please be sure if the bottom of the scale contacted completely on the ground.



**Step 4** Connect the power cord.



### Correct pose

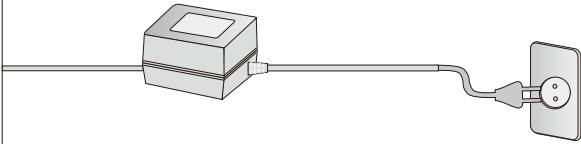


When stepping on a weighing board with right pose, touch bar will be automatically running down in 3 seconds.

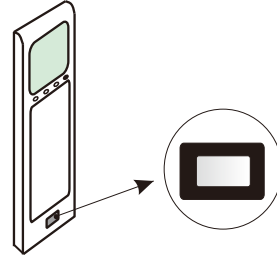
Please pay attention not to make any movement and not to lean against the rail while measuring.

### 3. How to use

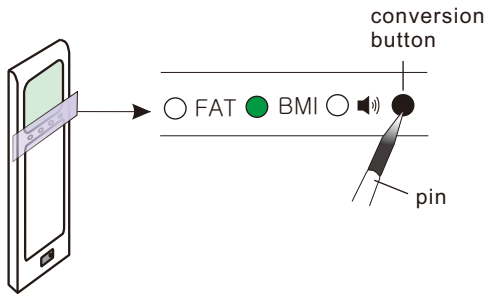
1. Plug in the DC power adapter.



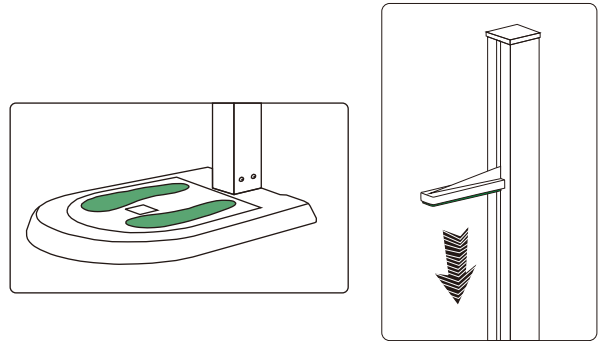
2. Push the power switch ④ for 2seconds. (push for 2 seconds to turn off also)



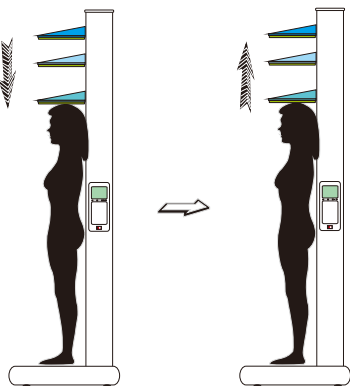
3. Check if BMI lamp is on. (whenever pushing the conversion button, the lamp of BMI or FAT will be alternately changed)



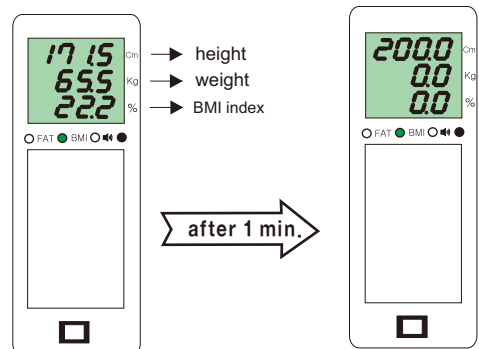
4. Stepping on a weighing board (feet shaped) and do not make any movement. It is a start signal.



5. Measuring is completed when touch bar touches your head and goes up.



6. Check the measured values. The numbers will disappear 1 minute later.



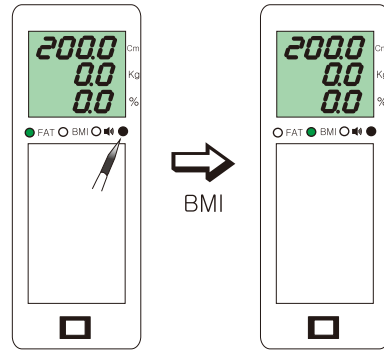
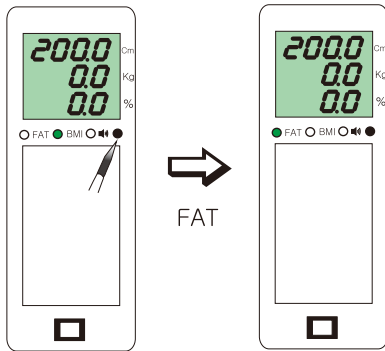
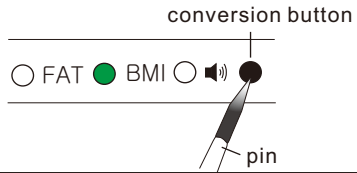
Caution

- If you move out while measuring, touch bar will be back to its original position.
- Please try not to make any movement while you are on the weighing board.
- Measured values will disappear 1 minute later.
- To use it again, step on the weighing board when there is no flickering in the display.

# 4. Conversion of BMI, FAT and Sound

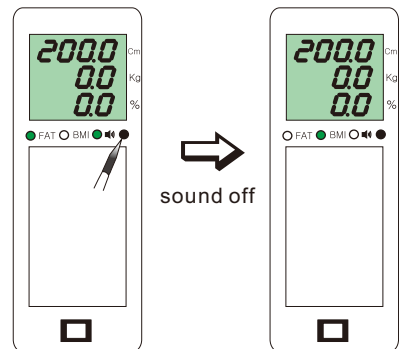
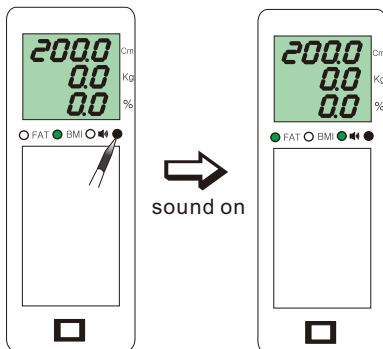
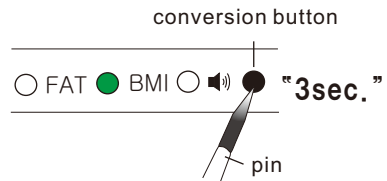
## BMI ↔ FAT

Each time pushing the button, BMI or FAT changes in return.



## Sound ↔ No sound

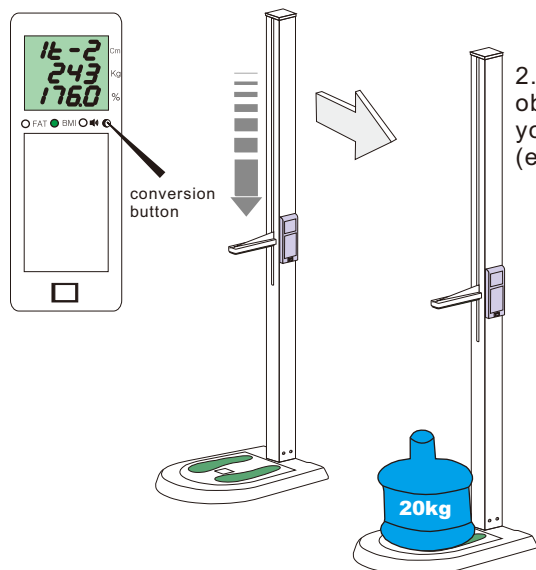
Each time pushing for 3 seconds the button, Sound on or off changes in return.



## 5. Correction of weight error

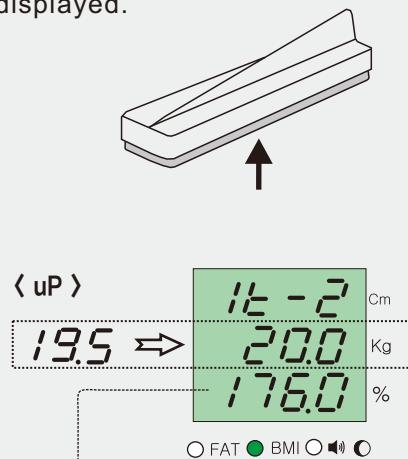
when the measured weight value is **lower** than real weight

1. Push the setting button for 10 seconds by using a pin. Then, the touch-bar will go down and stop at the level of the display.



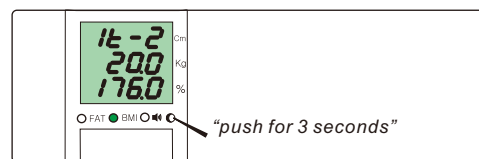
2. Put a weight or an object of which weight you've already known. (ex. 20kg)

3. Push (or keep pushing) the touching plate until exact weight displayed.



This number is just for showing changes and does not mean setting value.

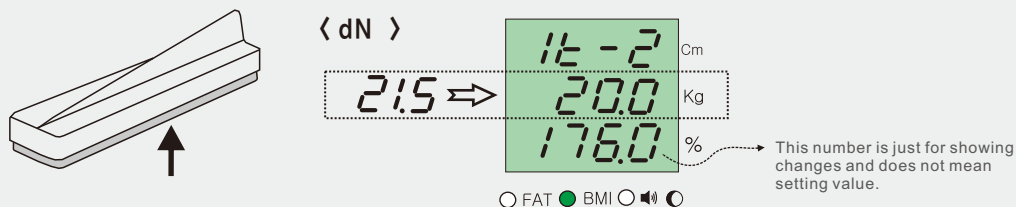
4. Push the conversion button for 3 seconds to finish correction.



when the measured weight is **higher** than real weight

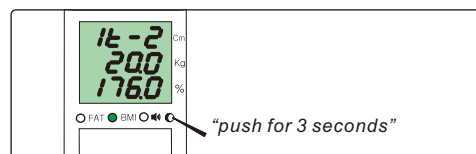
1. Push the setting button for 10 seconds.
2. Put a weight or an object of which weight you've already known. (ex. 20kg)
3. Push the setting button one more time to select "DOWN" from "UP"

4. Push (or keep pushing) the touching plate until exact weight displayed



This number is just for showing changes and does not mean setting value.

5. Push the conversion button for 3 seconds to finish correction.



## 6. BMI & FAT categories

### BMI Criterion

$$\text{BMI} = \frac{\text{Weight (Kg)}}{\text{Height}^2(\text{m})^2}$$

#### ◆◆◆ Adult ◆◆◆

under 20: under weight  
20 ~ 25: normal  
25 ~ 30: over weight  
over 30: obese

#### ◆◆◆ Baby ◆◆◆

under 15: under grown  
15 ~ 18: normal  
18 ~ 20: over weight  
over 20: obese

### Fatness Criterion

<Adult. Male>

$$\text{Fatness} = \frac{\text{Weight}}{(\text{Height}-100) \times 0.9} \times 100(\%)$$

<Adult. Female>

$$\text{Fatness} = \frac{\text{Weight}}{(\text{Height}-105) \times 0.9} \times 100(\%)$$

under 100: under weight  
100 ~ 110: normal  
110 ~ 120: over weight  
120 ~ 130: Light fat  
130 ~ 140: Medium fat  
over 140: High fat (obese)

※ This FATNESS formula is applied to only adults whose height is over 130cm(4.26 ft). This cannot be applied to children and adolescents.

※ As fatness rate for female doesn't display in model DS-103M, we recommend you to use only BMI mode at all times.

## Body Mass Index

From Wikipedia, the free encyclopedia

The body mass index (BMI), or Quetelet index, is a statistical measure of body weight based on a person's weight and height. Though it does not actually measure the percentage of body fat, it is used to estimate a healthy body weight based on a person's height.

Due to its ease of measurement and calculation, it is the most widely used diagnostic tool to identify weight problems within a population, usually whether individuals are underweight, overweight or obese.

It was invented between 1830 and 1850 by the Belgian polymath Adolphe Quetelet during the course of developing "social physics. Body mass index is defined as the individual's body weight divided by the square of his or her height.



## 7. Trouble shooting

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● Touch-bar doesn't move

- check if the power is plugged in or connection is loose.
- Turn off the power, pull down the touch-bar 5~10 cm downward, and turn on.
- If the touch-bar in the top with no power but there is any sound, pull it down 5~10cm downward and turn it on.

● Touch-bar stopped in the middle of operation

- If the touch-bar stopped in the middle (or bottom), turn it off and pull it up to the top (or middle) of the rail, and then turn it on.

● Height or weight error or inaccuracy

- Try to measure with a standard rod or thing to find if it's error or not.
- Check if the bottom of the scale is completely fixed on the ground.
- Try "Correction of weight error" in the page 6.
- Try "Zero setting" by yourself or request repairing service.

● Others

- If possible, please use this scale at one place. Frequent changes of location can cause inaccuracy.
- If you had to change location, please don't forget to fix the scale completely on the ground.
- Sometimes in case of problem in an adapter, it seems to work well but actually causes malfunctioning.
- Please do not pull or push the touch-bar forcibly by a hand while it is moving.



Caution

To avoid users' damages and to keep safe, please read this precautions.

POWER

This product is designed for free voltage (AC 100~220V).  
Do not touch the power cord with wet hands.  
(Electric shock can be caused)

NOTICE

As it is sensitive, please do not impact against the touch-bar.  
Please use in a measurable range.  
Please do not use when the scale is not yet ready (flickering)

CLEANING

Please be careful not to spill any liquid or something inflammable.  
Plug out before cleaning and do not use water, benzene, thinner or alcohol onto the product but only use dry duster.

## 8. SPECIFICATIONS

Model	DS-103M (Height, Weight auto measuring system)	
Height range	90 ~ 200cm (measuring unit: 0.1cm) / 2.95~6.56 ft	
Height method	Magnetic linear encoder 2 ultrasonic sensors are built in the touch bar for smooth touching.	
Weight range	10 ~ 200kg (measuring unit: 0.1kg) / 22.05~440.92 lb	
Weight method	Load cell	
Tolerance	Height: $\pm 0.1$ cm ( $\pm 0.003$ ft), Weight: $\pm 0.1$ kg( $\pm 0.220$ lb)	
Adapter	Input	AC 110V/220V, 50-60Hz, 1A
	Output	DC 12, 2A
Display	Digital Value on 7 segments (FND)	
Material	Aluminum	
Size (mm / inch)	410(W) $\times$ 550(L) $\times$ 2190(H) / 16.1"(W) $\times$ 21.7"(L) $\times$ 86.5"(H)	
Product weight	12kg / 26.46 lb	
Temperature range	10°C ~ 40°C / 50°F ~ 104°F	
Measuring order	Height, Weight and BMI simultaneously	
Measuring time	5 seconds (for measurement of height and weight)	
Device for leveling	5pcs of rubber headed screws	
Error compensation	User's operation (refer to user's manual)	
Voice output	English / Chinese / Korean (select one when buying)	
Print out	Optional. Select one out of RS232 & Blue tooth * A printer is optional. * Blue tooth application can be downloaded from Google Play (Android only).	
Fatness Formula	Fatness (WHO standard), BMI (KMA standard)	
Features	Easy to use, Excellent stability and design	

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*Healthy life Happy life*

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