

## User Manual MEG-213 BMI Scale



 $\mathbf{i}$  Please keep the instruction manual at hand all the time for future reference.

#### Explanation of the Graphic Symbols on Label/Packaging

CE	Indicates that device conforms to Declaration of Conformity requirements
	Separate collection for waste of electrical and electronic equipment, in accordance with Directive 2002/96/EC
<b>E</b>	Carefully read user manual before installation and usage, and follow instructions for use.
$\triangle$	Caution, consult accompanying documents before use

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## I. Before Use

#### A. General Information

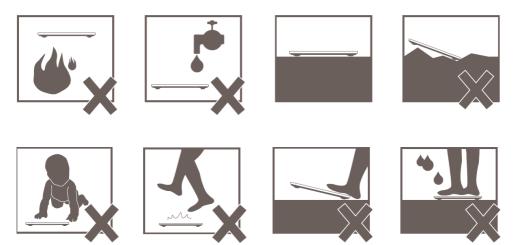
Thank you for choosing this Oserio product. Before use, please read this user manual carefully, and keep it in a safe place for reference. It contains important instructions regarding proper usage.

#### **Intended Use**

This product is intended to measure the weight and bioelectrical impedance of children or adults who can stand unassisted, using input data to calculate subject's body composition

#### **General Handling**

- Product should be placed on stable, flat, solid, non-slippery surface.
- Place the product in an area free from direct sunlight, heating equipment, high humidity, or extreme temperature change.
- Never submerge in water.
- Usage on soft surfaces (ex: carpet) may result in inaccurate results.



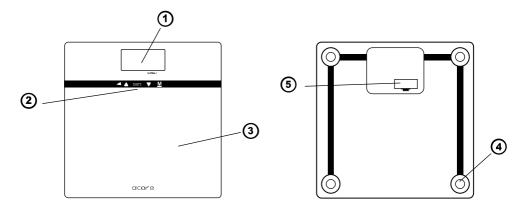
#### Disposal

- All batteries contain toxic compounds; batteries should be disposed of via designated competent organizations. Batteries should not be incinerated.
- 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.

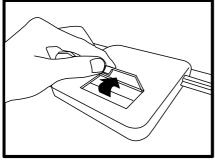
## **II. Product Description**

#### A. Overview

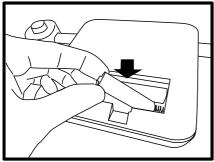


- 1. LCD screen
- 2. Set button, ▲Up / ▼Down buttons
- 3. Measurement platform
- 4. Feet
- 5. Battery cover

#### **B. Inserting Batteries**



Press tab to lift and open battery housing cover

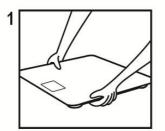


Insert 4 AA batteries

**NOTE**: Ensure batteries are inserted in correct orientation. If batteries are inserted incorrectly, product will not function. If product will not be used for a long period of time (> 3 months), remove the batteries before storage.

## III. How to Use

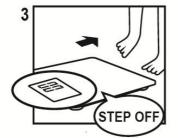
#### A. Self-calibration



After inserting batteries or moving the scale, please perform a quick self-calibration before weighing



Step on the scale (weight reading does not have to be locked)

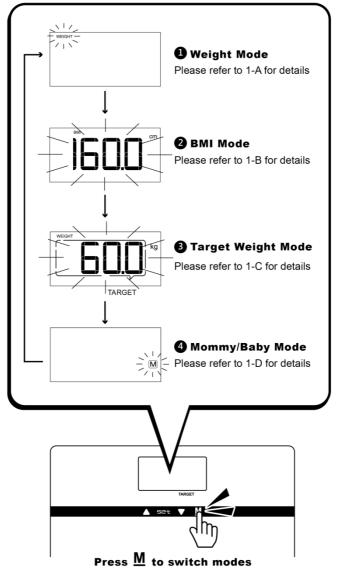


Step off from the scale

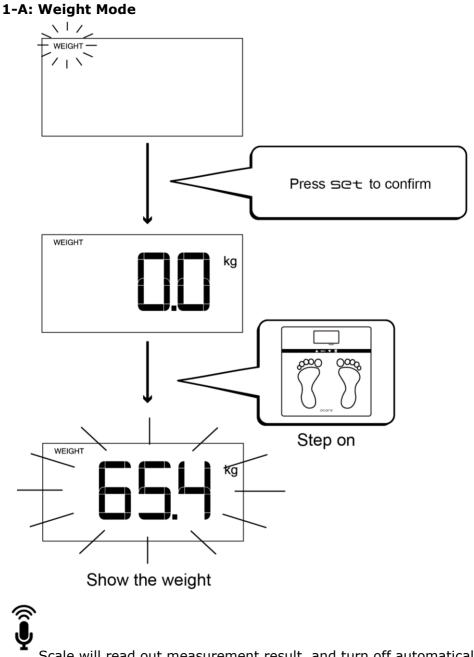
4 AUTO SHUT OFF

The scale is now re-calibrated and ready for weight measurement

## **B.** Operation flowchart

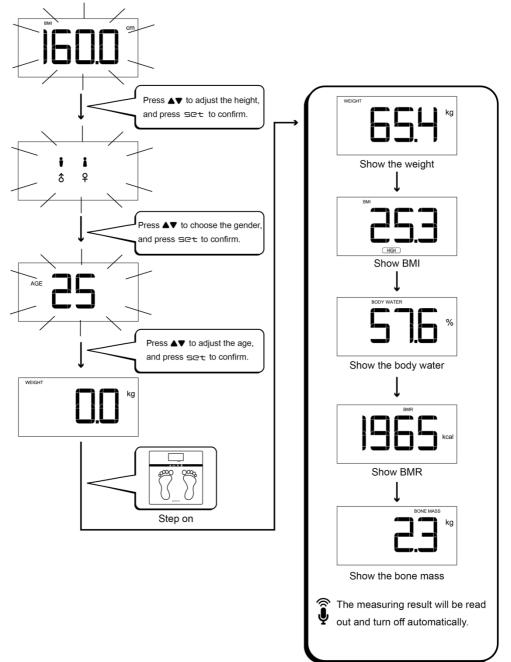


Scale will store the last chosen mode when turned off.

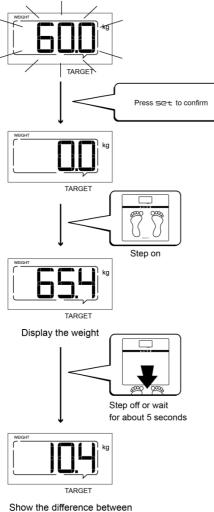


Scale will read out measurement result, and turn off automatically once complete

#### 1-B: BMI/Body Water/BMR/Bone Mass Mode



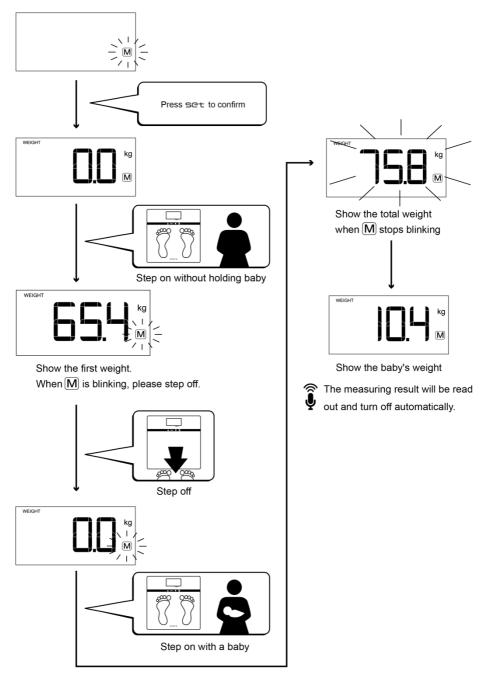
#### 1-C: Target Weight Mode



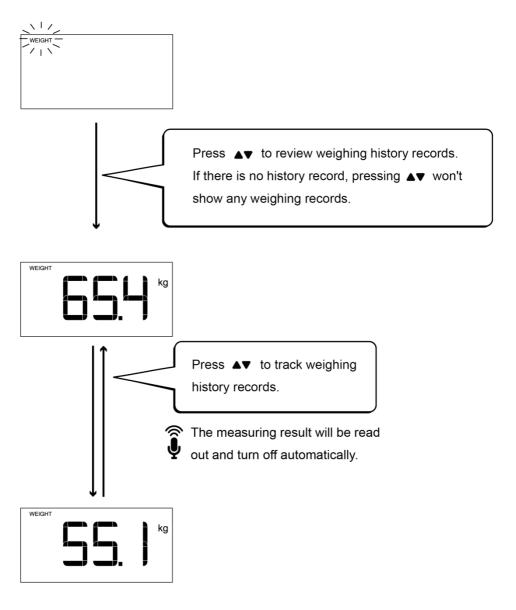
Show the difference between the target weight and current weight

Scale will read out measurement result, and turn off automatically once complete

#### 1-D: Mommy/Baby Mode



#### **1-E: Memory Mode**



### C. Measurement Results Explained

Results will be categorized into "low", "normal", "high", or "very high".

#### Body Mass Index (BMI)

BMI is a commonly used index by the World Health Organization (WHO), utilizing height and weight to classify underweight, normal, over, and obesity in adults.

Category	BMI (kg/m <sup>2</sup> )	Risk of obesity-related disease
Under	< 18.5	Low
Normal	18.5-24.9	Average
Over	24.9-29.9	Slightly Increased
Obese I	30.0-34.9	Increased
Obese II	35.0-39.9	High
Obese III	> 40	Very High

(World Health Organization adult BMI standards)

#### **Body Water**

Body water refers to the water contained in the tissues, blood, bones, and elsewhere. Body water in a healthy (non-obese) adult can fluctuate by roughly 5% daily, influenced by physiological activity and consumption of food and drink<sup>1</sup>. Due to larger size and muscle mass, healthy adult men tend to have more body water than women (on average)<sup>2</sup>.

Typically, children have a higher percentage of body water than adults, and body water levels reportedly decrease further around middle age as part of the aging process<sup>3</sup>. In addition, various diseases can affect body water percentage<sup>4</sup>.Therefore, BIA estimations should be used with particular caution if subject's body water differs significantly from the representative populations used to formulate BIA algorithms.

<sup>&</sup>lt;sup>1</sup> Askew EW Present Knowledge in Nutrition (7th ed) 1996, p.98-107

<sup>&</sup>lt;sup>2</sup> Lesser GT, Markofsky J. Body water compartments with human aging using fat-free mass as the reference standard. 1979. Am J Physiol, 236, p.R215-R220.

<sup>&</sup>lt;sup>3</sup> Cameron CW, Guo SS, Zeller CM, Reo NV, Siervogel RM. Total body water for white adults 18 to 64 years of age: The Fels Longitudinal Study. 1999. Kidney Internationalk Vol.56 Issue 1, p.244-252

<sup>&</sup>lt;sup>4</sup> Moore FD, Haley HB, Bering EA, Brooks L, Edelman I. Further observations on total body water. Changes of body composition in disease. 1952. Surg Gynecol Obstet, 95, p.155-180

#### Basal Metabolic Rate (BMR)

Basal metabolic rate is the minimum required energy to sustain the body's vital functions while at rest. These functions include breathing, blood circulation, regulation of body temperature, cell growth, brain function, and nerve function. BMR tends to decrease with age or reduction in weight, and is positively correlated with increase in muscle.

#### **Bone Mineral Mass**

Higher bone mineral content may be an indicator of higher bone density.

## IV. Caring for your product

#### A. Use & Storage

- Product should be stored in clean, cool, dry location when not in use, away from direct sunlight and extreme temperatures.
- This product is not a toy. Children should not be allowed to play with it.
- Avoid corrosive liquids and materials. Do not use detergents or cleaners to clean the product.
- Wipe the platform and display using clean soft cloth. Avoid rough, sticky cloth, to prevent scratching the measurement platform and screen panels.







#### **B. Service and maintenance**

The MEG-213 does not contain user-maintained parts. Service and maintenance not described in this user manual should be performed only by authorized technicians.

## V. Troubleshooting

#### **Error Messages**

Error Message	Reason and action required
	Low battery warning Replace batteries
Ērī	Overload weight Total load exceeds product's maximum capacity. Unstable weight Stay still and avoid movement during measurement.
POPV WATER	<b>Measurement error</b> Calculated body water exceeds maximum capacity; measurement cannot be completed.
Err <sub>e</sub>	<b>Device error</b> EEPROM inactive. Reset user profiles, or contact distributor for service.

# VI. Product Specifications

Model	MEG-213 BMI Scale						
Battery	4 AA batteries	Product Weight	1.3 kg				
Dimensions	Product: 330(W) x 330(D) x 30(H) mm Screen: 92(W) x 45(D)						
Operation	Temperature: 5℃~35℃						
Environment	Relative Humidity: 30%~85%						
	1		1				
	Storage Temperature: -20°C~60°C						
Environment	Relative Humidity: 10%~95%						
Capacity / Graduation	5~180 kg x 0.1 kg						
Measurement Sensors	4 weight sensors						
Measurement	Weight						
Output	Target Weight						
	Body Mass Index	(BMI)					
	Body Water						
	Basal Metabolic Rate Bone Mineral Mass						
	Done Finicial Plass						





Manufactured by: Krell Precision (Yangzhou) Co., Ltd. No.28, Xinyang Rd., Development Zone, Yangzhou City, Jiangsu Province, 225009, P.R.China

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