

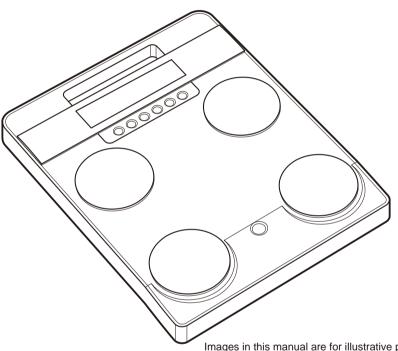




## Instruction manual

## **ID BODY COMPOSITION ANALYZER**

## **DC-240MA**



Images in this manual are for illustrative purposes only.

#### **<Usage Conditions>**

Temperature Range : 5 to 35°C Relative Humidity Range : 30 to 80%

(without condensation)

Maximum Altitude : 2,000m ASL Atmospheric Pressure Range : 86 to 106kPa

#### <Storage/Transport Conditions>

Temperature Range : -10 to 60°C

Relative Humidity Range : 10 to 90% (without condensation)

Atmospheric Pressure Range : 70 to 106kPa

To avoid malfunctions, avoid storing the equipment in a location that is subject to direct sunlight, significant temperature changes, dampness, large amounts of dust, the risk of vibration or impact, or near naked flames.



Please read this Instruction Manual carefully and keep it handy for future reference.

## Intended use

DC-240MA is a medical device to measure body composition, such as the percentage of body fat(fat percentage), using a noninvasive method on Bioelectrical Impedance Analysis (BIA), intended for the following use

- medical screening and health assessments

- monitoring the progress of weight loss during medical treatment relating to lifestyle diseases such as diabetes, hyperlipidemia, bariatric surgery, hypertension and fatty liver disease.

## **Efficacy**

- 1. This product is simple to use, and requires no specialized facilities or expertise to take measurements.
- 2. Measurements can be taken quickly and easily, causing minimal inconvenience to the patient during measurements.



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## **For Your Safety**

This section explains precautionary measures to be taken to avoid injury to the patients and operators of this product, and to prevent damage to property. Please familiarise yourself with this information to ensure safe operation of this product.

The DC-240MA is not diagnostic product. In order to make an accurate diagnosis, in addition to the result of DC-240MA, the doctor in charge should conduct appropriate examinations and consider the results.



#### **Contraindication**

This product must not be used on subjects with pacemakers or other mechanical implants.

This product passes a weak electrical current through the body which could interfere with and cause the malfunction of electrical medical implants, resulting in serious repercussions.



## **Marning**

Failure to follow instructions highlighted with this mark could result in death or severe injury.



Failure to follow instructions highlighted with this mark could result in injury or damage to property.



This mark indicates actions that are prohibited.



This mark indicates instructions that must always be followed.

#### **△** Warning

Do not handle the plug with a wet hand.

Such action may result in electric shock, fire, or leakage.



Keep this product away from flammable gas and oxygen rich environment.





No modification of this product is allowed.

There is a risk of electrocution or injury. Nor can precise analysis be guaranteed.



**Prohibited** 

Do not use double adapters.

May result in fire.



Do not use the product if you have any kind of wound or inflammation on any part of your body that comes into direct contact with the product.

Do not judge the evaluation of measurement results.

Consult your doctor before you start a body weight management program.



Use only a correctly wired (230VAC) outlet.

Only genuine cables and equipment are allowed.

#### **△** Caution

#### Keep away from water.

#### Avoid using on subjects with allergies to metals.

Allergic reactions may be caused by the stainless steel used in the electrodes of this product.

Do not jump on the product.

Do not use this product near other products that emit electromagnetic waves.



Do not insert fingers into gaps and holes.

#### Do not apply force to the display.

The screen panel may break and cause injury.

#### Do not place items sensitive to magnetic forces near the product.

The magnet of the impedance meter may cause corruption of data on devices such as USB memory sticks if these are placed near the product.

#### Assist persons with disabilities.

Another person should assist persons with disabilities who may not be able to take a measurement alone.

#### Be sure to clean the scale platform with appropriate disinfectant after each use.

For your safety to avoid the risk of electric shock and to secure the accuracy, keep a clearance with patients during measuring.

#### Continually monitor both the subject and the product for anomalies.

Should an anomaly with the subject or the product be discovered, take appropriate action, such as stopping the product, while ensuring the safety of the subject.

#### Be sure to use the designated AC adapter.

Unplug the AC cable from the product when moving it.



Required

Do not interpret analysis results yourself (including evaluating measurements and formulating exercise programmes based on results, etc.).

Weight loss and exercise based on self-analysis could be detrimental to your health. Always follow the advice of a qualified professional.

## This equipment is designated a Class B IT device (mainly for systems intended to be used in internal environments) and is CE (EMC) certified, but it may affect devices that are sensitive to electromagnetic waves.

If connecting a computer or peripheral devices to this equipment, please use devices complying with IEC60601-1 (EN60601-1). Power must be supplied from a medical isolation transformer for IEC60950(EN60950) devices. Keep a distance of 1.5m between units during operation. Failure to do so may cause electric shock to subjects or malfunction.

This product may only be operated by healthcare professionals.

## For Your Safety (Continue)

#### For Accurate Measurements

#### Avoid measuring after intense exercise.

May result in measurement errors. Please take measurements after sufficient rest.





Avoid measuring after over-eating or over-drinking, and when severely dehydrated.

May result in measurement errors. For greater accuracy, avoid using directly after waking up. Use at the same time on each occasion, at least three hours after eating.



Do not take measurements while using transmitters, such as mobile phones, which may affect readings.

## Use the product under the same conditions and in the same position as much as possible to track changes.

Readings are greatly affected by the level of hydration and position of the body. Please use at the same time each day, under the same conditions and in the same body position.





#### Avoid measuring in multiple locations with greatly differing temperatures.

This may cause inaccurate measurements. Allow the product to stand for at least 2 hours before using if it is moved to a new location with a temperature difference of 20°C or more.



Always hold both arms straight down when taking measurements to prevent measurement errors such as undermeasurement of body fat.

Bare feet should be placed correctly on the electrode platform. Place arms straight down during measurement.

#### Use in a stable location.

Errors in measurements may occur when the product is used in an unstable location.

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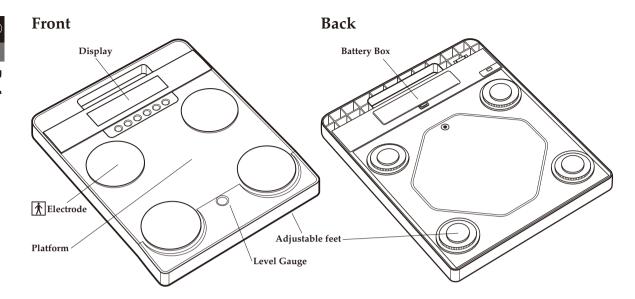
#### **Scheduled Maintenance**

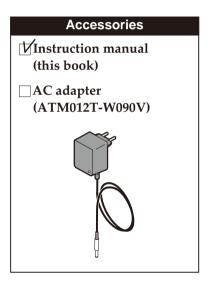
#### TANITA recommends that each facility conduct periodic checks of each unit.

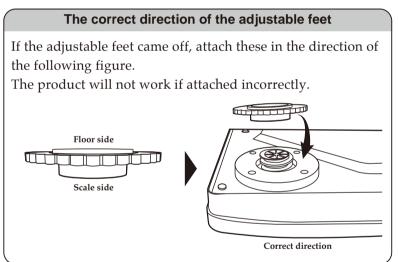
- 1. Check the following at least daily:
  - The unit is on a stable and level surface i.e. on a firm flooring, not on a thick carpet
- 2. Visually inspect the following at least weekly:
  - The display for any damage or contamination
  - All cables, cords, and connector ends for damage or contamination
  - All safety-related labeling for legibility
  - All accessories (sensors, electrodes, etc.) for wear or damage
- 3. Visually inspect the following at least monthly:

Update settings, replace items, or call for service as necessary according to the results of the visual inspections. Do not use the unit if you see any signs of damage. Product that has been damaged must be checked for proper operation by qualified personnel before using again.



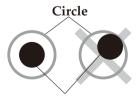






#### Level gauge check

- \*For accurate measurement, place the machine as level as possible.
- \* Rotate the adjustable feet in 4 positions for adjustment so that the bubble of the level gauge reach the centre.

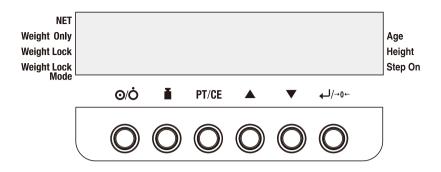


#### Air bubble

In the state that the level gauge is viewed from the top

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## Names and Functions of Display Panel & Operation Keys



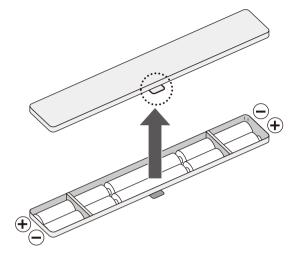
NET	Indicates that the clothes weight is input			
Weight Only	Indicates that the Weight Only (Scale) Mode			
Weight Lock	Indicates that the Weight is locking			
Weight Lock Mode	Indicates that the Weight Lock function is activated			
Age	Indicates that the age is input			
Height	Indicates that the height is input			
Step On	Indicates that the measuring start			

•	Power ON	Ċ	Power OFF	I	Select measurement mode
PT	Set preset tare value (Clothes weight)	CE	Clear input value		Value up
	Value down	<b>→</b>	Confirm the entered value	→0←	Reset zero point
Ť	Male	i	Female	K	Athletic mode

#### **Symbols and their Meanings**

<b>C €</b> ₀123	Conformity with Medical Device Directive 93/42/EEC	~	Alternating current		NAWI accuracy class III
===	Direct current		Class II Equipment	<b>†</b>	Type BF applied part
⊕-€-⊝	Polarity of DC power connector	⊕()⊖	Polarity of a battery	<b>↔</b>	Input, Output
Ā	WEEE - Waste Electrical and Electronic Equipment Directives		Manufacturer (Date of manufacture)		For indoor use only
<u>∧</u>	Caution. Refer to the attached information	<b>③</b>	See the instructions	SN	Serial number

#### <Using batteries>







- Please change the batteries LR6 (AA) carefully to avoid dropping them on your feet.
- Ensure that the batteries are inserted with the correct polarity ⊕/⊖. If the polarity is incorrect, then the batteries may leak and damage the product.
- When not in use for a long time, remove the batteries before storing the product.
- Lo is displayed when battery power is running out.
   Promptly replace with six new batteries.



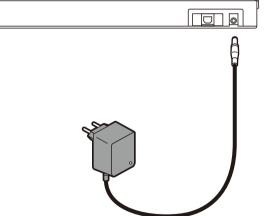
- Do not use old batteries together with new batteries, or a mix of different types of batteries at the same time.
- Do not replace with wet hands. Do not allow water to contact or spill on the battery box.

#### <Using the AC adapter>

- Insert the AC adapter jack into the AC adapter inlet on the right side of the main unit.
- (2) Plug the AC adapter into the power outlet.



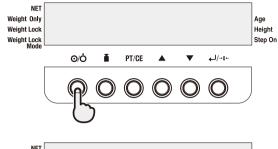
- This product must be used with the designated AC adapter (model: ATM012T-W090V)
- Please observe the following instructions for accurate measurement. Measurement may not be possible on the unstable environment. During weight measurement, please don't touch any connecting cable such as an AC Adapter cable and PC communication cable to avoid causing unstable scale installation.



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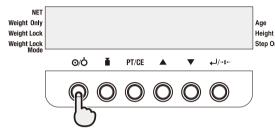
#### When turn on the power;

Press **⊙**/**ȯ** to turn on the power.



#### When turn off the power;

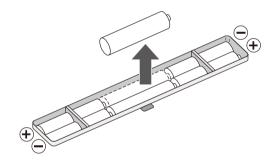
Press **o**/**o** to turn off the power.



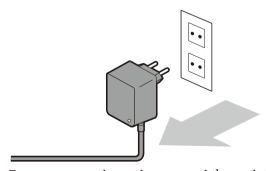
#### **Emergency Shutdown**

Pull out the batteries or AC adapter in case of an emergency.

#### <When using the batteries>



#### <When using the AC Adapter>



For emergency, keep clear around the outlet during operating this product.



Call up the setting mode.

¶ Press ⊙/o to turn on the power.

Press ←J/→0- for 1 second.

NFT Weight Only Age Weight Lock Height Weight Lock Mode Step On 0/Ò **↓**/→0← Weight Only Age Weight Lock Height Weight Lock Step On NET Weight Only Age Weight Lock Height Weight Lock Mode Step On ⊙/Ò PT/CE

SET 0 is displayed.

#### 2 Select the setting items.

- 1) by **▲** or **▼**,
  - 2) and **→**/→0← key.

**SET0** Check the software version.

SET1 Set ON / OFF of the beep sound. (0.off or 1.on)

**SET2** Set ON / OFF of the athlete selection. (0.off or 1.on)

**SET3** Set the automatic determination time when inputting. (input range 0-9 seconds)

\* "0" automatic determination function deactivate.

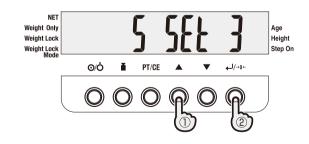
**SET4** Set the automatic power off time.

(0, 5, 10, 30, 60 minutes)

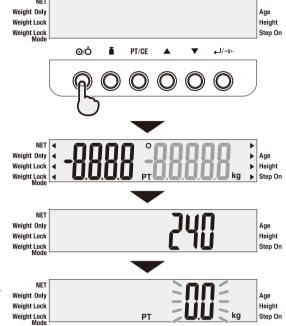
\* "0" automatic power off function deactivate.

#### Input the setting value.

- 1) by **▲** or **▼**,
- 2) and **→**/→0← key.

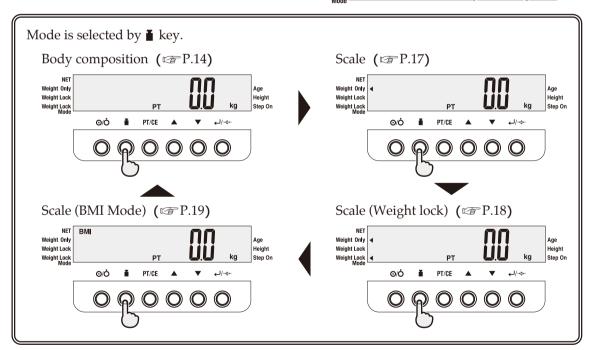


¶ Press ⊙/o to turn on the power.



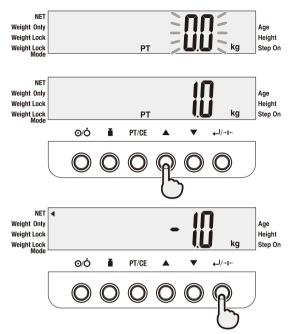
Model name is displayed.

is displayed (Body composition analyzer).



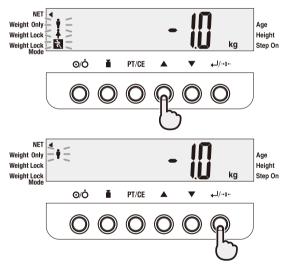
- ¶ Press ⊙⁄o to turn on the power.
- 2 Check that the Body composition analyzer mode is selected (FP.13).
- **3** Input the clothes weight.

  1) by ▲ or ▼,
  - 2) and ✓/→0- key
    \* PT/CE → clear the input.



## Select the Body type and Gender. 1) by ▲ or ▼,

2) and ←J/→0- key
\* PT/CE → return to previous status.

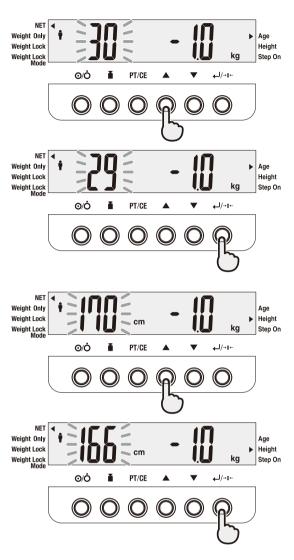


## 5 Input the age 1) by $\triangle$ or $\blacktriangledown$ ,

2) and ←/-0- key
\* PT/CE → return to previous status.

## **6** Input the height 1) by $\blacktriangle$ or $\blacktriangledown$ ,

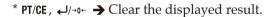
2) and ←/-0- key
\* PT/CE → return to previous status.

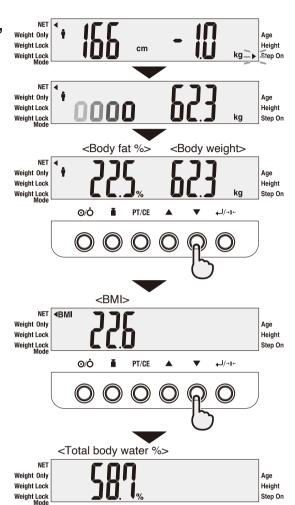


## How to use (Body composition analyzer) (Continue)

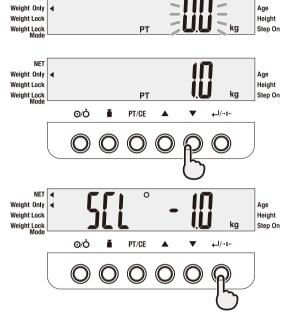
**7** Step on the platform with bare feet, after "Step on" flashing.

Measurement completion.





- ¶ Press ⊙/o to turn on the power.
- **2** Check that the Weight only mode is selected (© P.13).
- 3 Input the clothes weight. 1) by  $\blacktriangle$  or  $\blacktriangledown$ ,
  - 2) and ←J/→0+ key\* PT/CE → clear the input.



NET

- Step on the platform, after "Step on" flashing.
- Measurement completion.



## How to use (Scale • Weight Lock Mode)

**Activation of Weight lock function.** 

- Press o/o to turn on the power.
- Check that the Weight only mode (Weight lock mode) is selected (@P.13).
  - NET Weight Only ◀ Age Weight Lock Step On Weight Lock Mode
- Input the clothes weight. **3** Input .... 1) by **△** or **▼**,
  - 2) and **→**/→o← key \* PT/CE → clear the input.

- NET Weight Only ◀ Age Height Weight Lock Weight Lock Mode ◀ Step On PT/CE **↓**/→0← 0/0 NET ◀ Weight Only ◀ Age Weight Lock Height Weight Lock Mode ◀ Step On PT/CE
- Step on the platform, after "Step on" flashing.
- Measurement completion. ←/→0← → Clear the displayed result.



- Press oó to turn on the power.
- Check that the BMI mode is - selected (☞ P.13).
- Input the clothes weight. **1**) by **△** or **▼**,
  - 2) and **→**/→• key \* PT/CE → clear the input.

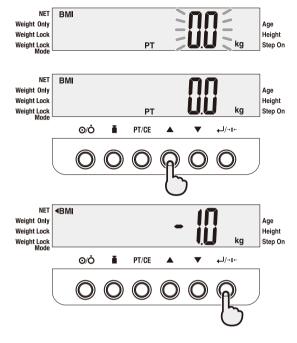
#### Input the height 1) by $\triangle$ or $\nabla$ ,

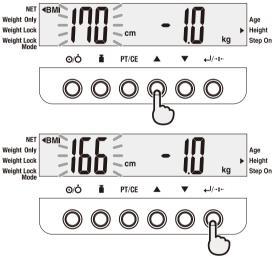
2) and **→**/→• key

\* PT/CE → return to previous status.

- **5** Step on the platform, after "Step on" flashing.
- Measurement completion.

  \* PT/CE, ←J/→0← → Clear the displayed result.







Body Fat Ranges for Standard Children 1,2



#### -What is body fat percentage? (Applicable age 5 to 99)

Body fat percentage is the amount of body fat as a proportion of your body weight.

Reducing excess levels of body fat has shown to reduce the risk of certain conditions such as high blood pressure, heart disease, diabetes and cancer. The chart below shows the healthy ranges for body fat.

<sup>1</sup> Susan Jebb et al. Obesity Reseach[o2] 2004;12:A156-157 "New Body Fat Reference Curves for children" <sup>2</sup> HD McCarthy et al. Int J Obes 2006; 30: 598-602 "Body Fat Reference Curves for Children." <sup>3</sup> Gallagher D et al. Am J Clin Nutr 2000,72:694-701. "Healthy percentage body fat ranges:an approach for developing Body Fat Ranges for Standard Adults 5 guidelines based on body mass index. 10 12 13 14 15 16 17 18 20-39 40-59 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 12

©TANITA Corporation

#### **Healthy Range Indicator**

Your Body Composition Analyzer automatically compares your body fat percentage reading to the Healthy Body Fat Range chart, identifying where you fall within the Body Fat Ranges for your age and gender.

- (+): Overfat and Obese
  - Overfat; above the healthy range. Increased risk for health problems.
  - Obese; high above the healthy body fat range. Greatly increased risk of obesity-related health problems.
- Healthy; within the healthy body fat percentage range for your age/gender. (0):
- Underfat; below the healthy body fat range. Increased risk for health problems.

**Note**: Athletes may have a lower body fat range depending on their particular sport or activity.

#### What is total body water percentage?

Total Body Water Percentage is the total amount of fluid in a person's body expressed as a percentage of their total weight. Water plays a vital role in many of the body's processes and is found in every cell, tissue and organ. Maintaining a healthy total body water percentage will ensure the body functions efficiently and will reduce the risk of developing associated health problems.

Your body water levels naturally fluctuate throughout the day and night. Your body tends to be dehydrated after a long night and there are differences in fluid distribution between day and night. Eating large meals, drinking alcohol, menstruation, illness, exercising, and bathing may cause variations in your hydration levels.

Your body water percentage reading should act as a guide and should not be used to specifically determine your absolute recommended total body water percentage. It is important to look for long-term changes in total body water percentage and maintain a consistent, healthy total body water percentage.

Drinking a large quantity of water in one sitting will not instantly change your water level. In fact, it will increase your body fat reading due to the additional weight gain. Please monitor all readings over time to track the relative change.

Every individual varies but as a guide the average total body water percentage ranges for a healthy adult are:

**Female**: 45 to 60% **Male**: 50 to 65%

Source: Based on Tanita's Internal Research

**Note:** The total body water percentage will tend to decrease as the percentage of body fat increases. A person with a high percentage of body fat may fall below the average body water percentage. As you lose body fat the total body water percentage should gradually move towards the typical range given above.

#### **Explanation of terminology**

This product and the attached instruction manual use expressions including terminology sited in the NAWI directive. Please review the following terminology explanations before use.

#### • Max (Maximum capacity)

This shows the maximum weight that can be measured by the scale.

**[Example]** In the case of "Max = 200kg", it can be used to measure an individual up to 200kg. \* Individuals exceeding the weight capacity cannot be measured.

#### • e (Minimum graduation)

This shows the amount of one scale mark (graduation). In the case of a digital display, this shows the numeric interval value.

**[Example]** In the case of e = 0.1 kg'', the display increases or decreases in intervals of 0.1 kg.

#### PT

To measure the body weight more accurately, the "Preset Tare Deduction" function automatically subtracts the pre-input weight of the clothes (TARE). The pre-input weight of the clothes is called "Preset Tare" (PT).

- Please check the following before asking for repair.

#### **Symptom**

#### Please check

• If the soles of the feet are dry, use a dropper to apply about 0.5 mL

of water before measurement.

Impedance measurement error

> Err40 Err67

• Check the input information.

Measure with bare feet.

## How to measure

Zero point error

UUUUU

The measured weight is not stable.

• Turn off the power, and remove the items on the platform and turn on the power again, and then redo the measurement.

- Is it installed at a place with vibrations?
- Is the platform inclined?
  - ⇒ Keep the platform horizontal. (© P.8)
- Is anything caught in the gaps of the platform?
  - ⇒ Remove anything caught in the gaps.

# Display part

Nothing is displayed even after turning on the power.

displayed.

• Check that the power supply is connected correctly.

• The weight to measure exceeds the measurement range.

# When necessary (Troubleshooting)

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<u>VIEMO</u>	
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Model		DC-240MA
Classification	MDD	Class IIa
Accuracy class	NAWI	Class III
Power source	AC adapter	CONTINUOUS OPERATION
1011010001	(ATM012T-W090V Class II)	Input: 100-240V AC 50-60Hz 0.32-0.19A
		Output: 9V DC 1.2A
	Battery	9V DC LR6 (AA alkaline battery)×6 (Not included)
Electric current range	e	10.8VA
<b>Power Consumption</b>	l	0.5W
	Measurement System	Dual-frequency 4 electrode
Impedance	<b>Measurement Frequency</b>	5 kHz / 50 kHz
Measurement	Measurement Current	90μA or less
	Measurement Range	$ 150-1000\Omega $
Weight	Measurement System	Strain Gauge Load Cell
Measurement	Maximum Capacity	200kg
Wicasurcincin	Minimum Graduation	0.1kg
	Clothes Weight	0-10kg/0.1kg increments
	Gender	Female/Male
Input Items	Body Type	Standard / Athletic
	Age	5-99 years (Standard)/18-99 years (Athletic)
	Height	90-249cm/1cm increments
	Weight	0-200.0kg/0.1kg increments
Output Items	Body Fat %	3-75% / 0.1% increments
•	BMI	0.1 increments
	Total body water %	15 - 85% / 0.1% increments
Interface Connections		USB
Product Weight		4.7kg
Size  The product design and specifications may be changed at any time without prior potential.		341x437x54mm

The product design and specifications may be changed at any time without prior notice.



This product meets the following requirements;

- 1. Medical Device Directive (93/42/EEC)
- 2. Non-Automatic Weighing Instruments (2014/31/EU)
- 3. RoHS Directive (2011/65/EU)

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#### **Disposal**



This equipment is electronic device. Please dispose of this equipment appropriately as not the general household waste but electronic equipment. Please follow a regional regulation when you dispose of this.

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