

# **Body Fat Monitor / Scale**



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**GB** Instruction Manual

Read this Instruction Manual carefully and keep it for future reference.

#### **D** Bedienungsanleitung

Lesen Sie sich diese Bedienungsanleitung bitte sorgfältig durch und bewahren Sie sie zum späteren Nachschlagen auf.

#### (F) Mode d'emploi A lire attentivement et à garder en cas de besoin.

(NL) Gebruiksaanwijzing

Deze handleiding aandachtig lezen en voor naslagdoeleinden bewaren.

#### Manuale di Istruzioni Leggere attentamente questo manuale di istruzioni e conservarlo per consultazioni future.

**E** Manual de instrucciones Lea detenidamente este manual de instrucciones y guárdelo para futura referencia.

## **P** Manual de instruções

Leia cuidadosamente este manual e guarde-o para futura referência.

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# INTRODUCTION

Thank you for selecting a Tanita Body Fat Monitor/Scale. This model uses the BIA (Bioelectrical Impedance Analysis) technique, a state-of-the-art technology for body fat assessment.

Note: Read this Instruction Manual carefully and keep it handy for future reference.

#### **A** Safety Precautions

- Persons with implanted electronic medical equipment, such as a pacemaker, should not use the Body Fat Monitor feature on this Tanita Body Fat Monitor/Scale. This Body Fat Monitor/Scale passes a low-level electrical signal through the body, which may interfere with the operation of a pacemaker.
- The Tanita Body Fat Monitor/Scales are intended for home use only. This unit is not intended for professional use in hospitals or other medical facilities; it is not equipped with the quality standards required for heavy usage experienced under professional conditions.
- Do not use this unit on slippery surfaces such as wet floors.

## The BIA Method

Tanita Body Fat Monitor/Scales use the BIA (Bioelectrical Impedance Analysis) technique. In this method, a safe, low-level electrical signal is passed through the body. It is difficult for the signal to flow through fat in the human body, but easy to flow through moisture in the muscle and other body tissues. The difficulty with which a signal flows through a substance is called impedance. So the more resistance, or impedance, the signal encounters, the higher the body fat reading.

Tanita's patented "foot-pad" design sends a safe, lowlevel electrical signal through the body to determine its composition.

## **Body Fat Percentage Fluctuations in a Day**

Hydration levels in the body may affect body fat readings. Readings are usually highest in the early waking hours, since the body tends to be dehydrated after a long night's sleep. For the most accurate reading, a person should take a body fat percentage reading at a consistent time of day under consistent conditions. Besides this basic cycle of fluctuations in the daily body fat readings, variations may be caused by hydration changes in the body due to eating, drinking, menstruation, illness, exercising, and bathing. Daily body fat readings are unique to each person, and depend upon one's lifestyle, job and activities.

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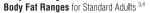
## PRINCIPLES OF ESTIMATING BODY FAT PERCENTAGE

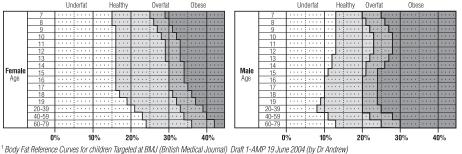
Tanita Body Fat Monitor/Scales allow you to determine your body fat percentage at home as easily as you measure your weight.

#### What is Body Fat Percentage?

Body fat percentage is the percentage of fat in your body. Too much body fat has been linked to conditions such as high blood pressure, heart disease, diabetes, cancer, and other disabling conditions.







<sup>2</sup> Gallagher D et al. Am J Clin Nutr 2000,72:694-701. "Healthy percentage body fat ranges: an approach for developing guidelines based on body mass index." <sup>3</sup> Based on NIH/WHO BMI Guidelines.

<sup>4</sup> As reported by Gallagher, et al, at NY Obesity Research Center. To determine the percentage of body fat that is appropriate for your body, consult your physician.

WHAT IS BASAL METABOLIC RATE (BMR)?

#### WHAT IS BMR?

Your Basal Metabolic Rate(BMR) is the minimum level of energy your body needs when at rest to function effectively including your respiratory and circulatory organs, neural system, liver, kidneys, and other organs. You burn calories when sleeping.

About 70% of calories consumed every day are used for your basal metabolism. In addition, energy is used when doing any kind of activity however; the more vigorous the activity is the more calories are burned. This is because skeletal muscle (which accounts for approximately 40% of your body weight) acts as your metabolic engine and uses a large amount of energy. Your basal metabolism is greatly affected by the quantity of muscles you have, therefor increasing your muscle mass will help increase your basal metabolism.

By studying healthy individuals, scientists have found that as people age, their metabolic rate changes. Basal metabolism rises as a child matures. After a peak at the age of 16 or 17, it typically starts to decrease gradually.

Having a higher basal metabolism will increase the number of calories used and help to decrease the amount of body fat. A low basal metabolic rate will make it harder to lose body fat and overall weight.

#### HOW DOES A TANITA BODY COMPOSITION MONITOR CALCULATE BMR?

The basic way of calculating Basal Metabolic Rate BMR is a standard equation using weight and age. Tanita has conducted in-depth research into the relationship of BMR and body composition giving a much more accurate and personalized reading for the user based on the impedance measurement. This method has been medically validated using indirect calorimetry (measuring the breath composition).\*

\*Reliability on equation for Basal Metabolic Rate: At 2002 Nutrition Week : A Scientific and Clinical Forum and Exposition Title: International Comparison: Resting Energy Expenditure Prediction Models: The American Journal of Clinical Nutrition 2

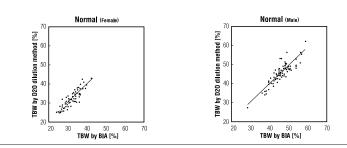
## What is Total Body Water Percentage?

Total Body Water Percentage is the total amount of fluid in a person's body expressed as a percentage of their total weight. Approximately 50 –65% of the weight of a healthy person is water. 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.

### How To Measure Total Body Water

The Deuterium Dilution Method is currently used as a typical method to measure total body water (TBW) percentage. In contrast, this instrument estimates TBW by using BIA. An agreement of over 80% is obtained between this instrument and the Deuterium Dilution Method.

Note: The Deuterium Dilution Method measures total body water based on the analysis of the deuterium oxide isotope in urine before and after ingestion of an oral dose.



## Normal Total Body Water Percentage (% TBW)

The normal total body water percentage ranges for adults are: Female: 45-60% Male : 50-65% Note: The total body water percentage of a person with a high percentage of body fat may fall below the normal ranges

## Daily Rhythm of Total Body Water

Try to monitor total body water percentage at the same time of day and under the same conditions. This increases the accuracy of the readings. The best time is in the early evening, before the evening meal, when hydration levels are more stable. Total body water percentage tends to be underestimated to a degree if measured immediately after getting out of bed, not only because of dehydration but also because the fluid in the body will be stored centrally in the body's trunk. As the day progresses this fluid becomes more evenly distributed due to the effect of gravity. Total body water percentage is not affected by fluids consumed until they are absorbed by the body tissues.

#### Important Notes

- Take your measurements at the same time of day and under the same conditions.
- Measured results depend on the redistribution of water in the body and/or changes in body temperature. Factors
  affecting total body water levels include sleep, physical activity, eating and drinking, illness and medications, bathing
  patterns and urination.
- Take fluids immediately if you have any symptoms of dehydration, particularly after physical activity or bathing. Symptoms include a dry mouth, headache, nausea, dizziness, skin dryness, a rise in temperature, loss of concentration, etc. If symptoms persist, consult your doctor immediately.
- Elderly people are at increased risk of dehydration as they have less sensitivity to thirst and other symptoms.
- This instrument does not directly measure an individual's total body water content. The percentage reading from the
  monitor is only an estimate. Look for long-term changes and try to maintain a consistent, healthy total body water
  percentage.
- This instrument will not give total body water readings for children.

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# WHAT IS MUSCLE MASS?

This feature indicates the weight of muscle in your body. The muscle mass displayed includes the skeletal muscles, smooth muscles (such as cardiac and digestive muscles) and the water contained in these muscles. Muscles play an important role as they act as an engine in consuming energy. As your muscle mass increases, your energy consumption increases helping you reduce excess body fat levels and lose weight in a healthy way.

## WHAT IS PHYSIQUE RATING?

This feature assesses your physique according to the ratio of body fat and muscle mass in your body. As you become more active and reduce the amount of body fat, your physique rating will also change accordingly. Even though your weight may not change, your muscle mass and body fat levels may be changing making you healthier and at lower risk of certain diseases.

Each person should set their own goal of which physique they would like and follow a diet and fitness programe to meet that goal.

Result	Physique Rating	Explanation
1 Hidden obese	Small Frame Obese	
	Hidden obese	This person seems to have a healthy body type based on physical appearance; however, they have a high body fat % with low muscle mass level.
		Medium Frame Obese
2	Obese	This person has a high body fat percentage, with a moderate muscle mass level.
3 5	O all'alla fa th	Large Frame Obese
	Solidly-built	This person has both a high body fat % and a high muscle mass.
4 Under exercised	Low Muscle & Average Body Fat%	
	Under exercised	This person has an average body fat % and a less than average muscle mass level
5 Standard	Ave. Muscle & Ave. Body Fat %	
	Standard	This person has average levels of both body fat and muscle mass.
6 Standard Muse		High Muscle & Ave. Body Fat % (Athlete)
	Standard Muscular	This person has an average body fat % and higher than normal muscle mass level.
		Low Muscle & Low Fat
7	Thin	This person has both a lower than normal body fat % and muscle mass level.az
8 Thin and muscular		Thin and muscular (Athlete)
	Thin and muscular	This person has lower than normal body fat % while having adequate muscle mass.
9	Very Muscular	Very Muscular (Athlete)
		This person has lower than normal body fat % while having above average muscle mass.

Source : Data from Columbia University (New York) & Tanita Institute (Tokyo)

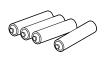
# FEATURES AND FUNCTIONS

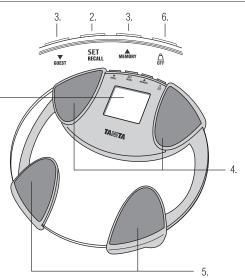
## Measuring Platform

- 1. Display Screen
- Set Button
   Arrow (Select) Buttons
- 4. Ball-of-Foot Electrodes
- 5. Heel Electrodes
- 6. Weight-Only Key

## Accessories

7. AA-Size Batteries (4)





# **PREPARATIONS BEFORE USE**

#### **A** Inserting the Batteries

Open the battery cover on the back of the measuring platform. Insert the supplied AA-batteries as indicated.

Note: Be sure that the polarity of the batteries is set properly. If the batteries are incorrectly positioned the fluid may leak and damage floors. If you do not intend to use this unit for a long period of time, it is advisable to remove the batteries before storage. Please note that the included batteries from factory may have decreased energy levels over time.



Open as shown.



Place the measuring platform on a hard, flat surface where there is minimal vibration to ensure safe and accurate measurement. **Note:** To avoid possible injury, do not step on the edge of the platform.

#### Handling Tips

This monitor is a precision instrument utilizing state-of-the-art technology. To keep the unit in the best condition, follow these instructions carefully:

- Do not attempt to disassemble the measuring platform.
- Store the unit horizontally, and place it so that the buttons will not be pressed accidentally.
- Avoid excessive impact or vibration to the unit.
- Place the unit in an area free from direct sunlight, heating equipment, high humidity, or extreme temperature change.
- Never submerge in water. Use alcohol to clean the electrodes and glass cleaner (applied to a cloth first) to keep them shiny; avoid soaps.
- Do not step on the platform when wet.
- Do not drop any objects onto the platform.

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# **USEFUL FEATURES**

- Tanita Body Fat Monitor/Scales allow you to know your weight, body fat percentage, and body water percentage simultaneously and easily, simply by stepping on a scale.
- Your Body Fat Monitor/Scale can be set for Adult or Children (ages 7-17), Male or Female.
- Personal data (Female/Male, Age, Height, etc.) can be pre-set and stored in memory for up to 4 people.
- Unique Healthy Range Indicator automatically displays where your body fat percentage falls within the Body Fat Ranges chart (p.2).
- Guest feature allows you to take readings without reprogramming one of the Personal keys.
- Weight-only Key provides guick weight readings.
- The unit emits a helpful "beep" when activated, and also at various stages in the programming and measuring process. Listen for these sounds which will prompt you to step on the unit, look at your readings, or confirm a setting.

## SWITCHING THE WEIGHT MODE Note: For use only with models containing the weight mode switch

You can switch the unit indication by using the switch on the back of the scale as shown in the figure.

Note: If weight mode is set to pounds or stone-pounds, the height programming mode will be automatically set to feet and inches.

Similarly, if kilograms is selected, height will be automatically set to centimetres.

#### lb (pounds) kg (kilograms) st/lh b st/II lb kg kg

# **AUTOMATIC SHUT-DOWN FUNCTION**

The automatic shut-down function shuts off the power automatically in the following cases:

- If you interrupt the measurement process. The power will shut down automatically within 10 to 20 seconds, depending upon the type of operation.
- If an extraordinary weight is applied to the platform.
- During programming, if you do not touch any of the keys or buttons within 60 seconds.\*
- After you have completed the measuring process.

\*Note: If the power shuts off automatically, repeat the steps from "Setting and Storing Data in Memory" (p.8).

## **GETTING ACCURATE READINGS**



Heels centered on Toes may overhang electrodes measuring platform

Note: An accurate reading will not be possible if the soles of your feet are not clean, or if your knees are bent or you are in a sitting position.

To ensure accuracy, readings should be taken without clothing and under consistent conditions of hydration. If you do not undress, always remove your socks or stockings, and be sure the soles of your feet are clean before stepping on the measuring platform. Be sure that your heels are correctly aligned with the electrodes on the measuring platform. Don't worry if your feet appear too large for the unit accurate readings can still be obtained if your toes overhang the platform. It is best to take readings at the same time of day. Try to wait about three hours after rising, eating, or hard exercise before taking measurements. While readings taken under other conditions may not have the same absolute values, they are accurate for determining the percentage of change as long as the readings are taken in a consistent manner. To monitor progress, compare weight and body fat percentage taken under the same conditions over a period of time.

st-lb (stone pounds)

kg

lb

st/

# SETTING AND STORING PERSONAL DATA IN MEMORY

You will receive readings only if data has been programmed into one of the personal data memories or the Guest mode. The monitor can store personal details for up to 4 people.

#### **1.** Turn on the Power

Press the Set button to turn on the unit. The unit will beep to confirm activation, the Personal data number will be displayed, and the display will flash.

Note: If you don't operate the unit for sixty seconds after the unit has been turned on, the unit will turn off automatically.

Note: If you make a mistake or want to turn the unit off before you have finished programming it, press the Weight-Only Key ( 🛆 ) to force quit.



## 2. Select a Personal Key Number

Press the Up/Down buttons to select a Personal Key. Once you reach the Personal Key number you wish to use, press the Set button. The unit will beep once to confirm.



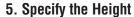
## 3. Set Age

The display defaults to Age 30 (range of user age is between 7-99). An arrow icon appears on the lower left side to indicate Age setting. Use the Up/Down buttons to scroll through numbers. When you reach your age, press the Set button. The unit will beep once to confirm.



## 4. Select Female or Male

Use the Up/Down buttons to scroll through Female ( Å ) or Male ( 🖤 ) settings, then press the Set button. The unit will beep once to confirm.



The display defaults to 5' 7.0" (170cm) (range of user is from 3' 4.0" -7' 3.0" or 100cm - 220cm). Use the Up/Down buttons to specify Height and then press the Set button. The unit will beep once to confirm.





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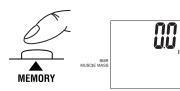




BM MUSCIE MAS

BMR MUSCIE MASS

# TAKING WEIGHT AND BODY FAT READINGS



## 1. Select Personal Data Number

Press the Up button turn on. Use the Up/Down buttons to select your Personal data number. Press the Set button to confirm. (Release the key within 3 seconds or the display will show "Error". The unit will beep and the display will show the programmed data. The unit will beep again and the display will show "0.0". Now step onto the platform.

- Note: If you step onto the platform before "0.0" appears the display will show "Error" and you will not obtain a reading. Furthermore, if you do not step onto the measuring platform within about 30 seconds after "0.0" appears, the power is shut-off automatically.
- •When using the "Up" button to turn the unit on, the personal data number last used will appear first.
- •Numbers that are not pre-programmed are automatically skipped.

# ÌĹİ <u>Ovnn</u> J VUU 849 350

2. Get Your Readings Your weight will be shown first.

Continue to stand on the platform. "00000" will appear on the display and disappear one by one from left to right.

The display will then flash your weight %FAT, %TBW and BMR alternately 3 times.

Note:Do not step off until Body Fat % is shown.

## 1620 BMR MUSCIE MASS SET RECALL

#### 3. Recall Function

To obtain previous readings, press the SET button while the current readings are being displayed. Press the SET button again to go back to the current Weight and Body Fat % result display.

# **UNDERSTANDING YOUR READING**

Healthy Range Indicator (Standard Adults only\*) Your body fat monitor/scale automatically compares your body fat reading to the Healthy Body Fat Range chart.

-4+ 0 Under Healthy Over Obese

\*Note: If you select Athlete mode, the unit will

particular sport or activity.

(Range of user age is between 18-79)

display, identifying where you fall within the Body Fat Ranges for your age and gender. For example, if the squares appear above (**0**) area your range is within the Healthy Range - if they appear over (-) area, your reading is below the Healthy Range. For more about the Healthy Range, see page 2.

(-) : Underfat; below the healthy body fat range. Increased risk for health problems.

- not display the Healthy Range Indicator. Athletes (0) : Healthy; within the healthy body fat percentage range for your may have a lower body fat range based on their age/gender.
  - : 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.

# **PROGRAMMING THE GUEST MODE**

Guest mode allows you to programme the unit for a one-time use without resetting a Personal data number. Press  $\checkmark$  button to activate the unit. Then follow the steps: Set Age, Select Female or Male, and Specify Height,



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Note : If you step onto the platform before "0.0" appears the display will show "Error" and you will not obtain a reading.

# TAKING WEIGHT MEASUREMENT ONLY

#### Select Weight-Only Key

Press the Weight-only key. After 2 or 3 seconds. "0.0" will appear in the display and the unit will beep. When "0.0" appears in the display, step onto the platform. The body weight value will appear. If you remain on the platform, the display will flash for about 30 seconds, and then the power will automatically turn off. If you step off the platform, the weight will continue to show for about 5 seconds, then "0.0" will appear and the unit will shut off automatically.



# TROUBLESHOOTING

#### If the following problems occur ...then...

- A wrong weight format appears followed by kg, lb, or st-lb Refer to "Switching the Weight Mode" on p.6.
- "Lo" appears on the display, or all the data appears and immediately disappears.

Batteries are low. When this message appears, be sure to replace the batteries immediately, since weak batteries will affect the accuracy of your measurements. Change all the batteries at the same time with new AA-size batteries. Note: Your settings will not be erased from the memory when you remove the batteries.

• "Err" appears while measuring.

Please stand on the platform keeping movement to a minimum. The unit cannot accurately measure your weight if it detects movement.

 The Body Fat Percentage measurement does not appear or "-----" appears after the weight is measured.

Your personal data has not been programmed. Follow the steps on p.7. Make sure socks or stockings are removed, and the soles of your feet are clean and properly aligned with the guides on the measuring platform.

- "OL" appears while measuring. Reading cannot be obtained if the weight capacity is exceeded.
- "Err FAT%" appears while measuring. The Body Fat Percentage is more than 75%, readings cannot be obtained from the unit.

