OMRON HEALTHCARE Co., Ltd.
53, Kunotsubo, Terado-cho, Muko, Kyoto, 617-0002 Japan

OMRON HEALTHCARE SINGAPORE PTE LTD.
438A Alexandra Road, #05-05/08, Alexandra Technopark Singapore 119967
www.omron-healthcare.com.sg

OMRON

Instruction Manual

Body Composition Monitor

Model **HBF-358-BW**

KaradaScan™



Thank you for purchasing OMRON Body Composition Monitor.

Before using this unit for the first time, please be sure to read this Instruction Manual carefully and use the unit safely and properly.

Please keep this Instruction Manual at hand all the time for future reference.

All for Healthcare

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HBF-358-BW
Body Composition Monitor

Please read instructions carefully before use, and keep this manual for future reference. Do not use this unit for purposes other than described in this manual.

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Before using the unit

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Notes on Safety

Symbols and definitions are as follows:

⚠ **Danger:**	Improper use may cause danger resulting in death or serious injury.
⚠ **Warning:**	Improper use may result in possible death or serious injury.
⚠ **Caution:**	Improper use may result in injury or property damage.

⚠ Danger:

- Never use this unit in combination with medical electronic devices such as:

(1) Medical electronic implants such as pacemakers.
(2) Electronic life support systems such as an artificial heart/lung.
(3) Portable electronic medical devices such as an electrocardiograph.

This unit could cause these devices to malfunction, posing a considerable health risk to users of these devices.

⚠ Warning:

- Never start weight reduction or exercise therapy without the instructions of a doctor or specialist.
- Do not use the unit on slippery surfaces, such as a wet floor.
- Keep the unit out of the reach of young children.
- Do not jump onto the unit, or hop up and down on the unit.
- Do not use this unit when your body and/or feet are wet, such as after taking a bath.
- Stand on the main unit bare-footed. Attempting to stand on it with socks on may cause you to slip and result in injury.
- Do not step on the edge or display area of the main unit.
- People with disabilities, or who are physically frail, should always be assisted by another person when using this unit. Use a handrail or so when stepping on the unit.
- Do not use this unit to measure the body fat percentage for people who is under 10 years or above 81 years old.
- This unit can not display the visceral fat level for people who is younger than 18 years old.
- Should battery fluid get into your eyes, rinse it with plenty of clean water and consult a doctor immediately.

⚠ Caution:

- This unit is intended for home use only. It is not intended for professional use in hospitals or other medical facilities. This unit does not support the standards required for professional use.
- Do not disassemble, repair, or remodel the display unit or the main unit.
- Do not use a cellular phone near the display unit or the main unit.
- Take care when storing the display unit. Your fingers may be trapped between the grip and the main unit if you press it too strongly.
- Do not use batteries not specified for this unit. Do not insert the batteries with the polarities in the wrong direction.
- Replace worn batteries with new ones immediately.
- Do not dispose of batteries in fire.
- Should battery fluid get on your skin or clothing, rinse it with plenty of clean water immediately.
- Remove the batteries from this unit when you are not going to use it for a long period of time (approximately three months or more).
- Do not use different types of batteries together.
- Do not use new and worn batteries together.
- Remove the display unit from main unit before stepping on the unit. If you try to remove the display unit while stepping on to the unit, you may lose your balance and fall.

Useful Information

Principle of body composition calculation

Body fat has low electric conductivity

OMRON HBF-358-BW measures the body fat percentage by the Bioelectrical Impedance (BI) method. Muscles, blood vessels and bones are body tissues with a high water content that conducts electricity easily. Body fat is tissue that has little electric conductivity. The HBF-358-BW sends an extremely weak electrical current of 50 kHz and less than 500 μA through your body to determine the amount of fat tissue. This weak electrical current is not felt while operating the HBF-358-BW.

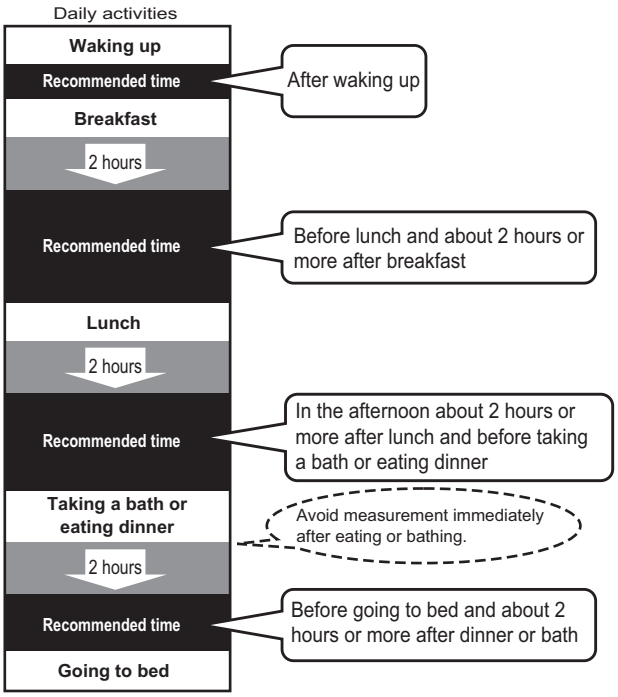
In order for the scale to determine body composition, it uses the electrical impedance, along with your height, weight, age and gender information to generate results based on OMRON's data of body composition.

Measures the whole body to avoid the influence of fluctuations

During the course of a day, the amount of water in the body tends to shift to the lower limbs gradually. This is why there is a tendency for the legs and ankles to swell in the evening or at night. The ratio of water in the upper body and lower body is different in the morning and evening, and this means that the electrical impedance of the body also varies. Since the HBF-358-BW uses electrodes for both hands and feet to take measurements, it can reduce the influence of these fluctuations on measurement results.

Recommended measurement times

Understanding the normal changes in your body fat percentage can help prevent or reduce obesity. Being aware of the times when the body fat percentages shift within your own daily schedule will assist you in obtaining an accurate trending of your body fat. It is recommended to use this unit in the same environment and daily circumstances. (See chart)



Avoid taking measurements under the following conditions

If a measurement is made under these physical conditions, the estimated body fat percentage may differ significantly from the actual one because the water content in the body is changing.

Avoid taking measurements:

- immediately after vigorous exercise

Please wait for 2 hours or more

- after a bath or sauna
- after drinking alcohol
- after drinking lots of water
- after eating a meal

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What is BMI (Body Mass Index)?

BMI uses the following simple formula to indicate the ratio between weight and height of a person.

BMI = weight (kg) / height (m) / height (m)

The OMRON HBF-358-BW uses the height information stored in your personal profile number or when entering information in the Guest Mode to calculate your BMI classification.

If the fat level revealed by BMI is higher than the international standard, there is an increased likelihood of common diseases. However, not all types of fat can be revealed by BMI.

What is RESTING METABOLISM?

Regardless of your activity level, a minimum level of energy is required to sustain the body's everyday functions. Resting metabolism, the amount of calories needed to supply the body with the minimum level of energy, differs between individuals depending on variables such as age, weight, body composition, and energy expenditure.

What is BODY AGE?

Body age is based on your resting metabolism. Body age is calculated by using your weight and body fat percentage to produce a guide to judge whether your body age is above or below the average for your actual age. To know your body age is useful to improve your health condition.

What is Body Fat Percentage?

Body fat percentage refers to the amount of body fat mass in regards to the total body weight expressed as a percentage.

Body fat percentage (%) = {Body fat mass (kg) / Body weight (kg)} × 100

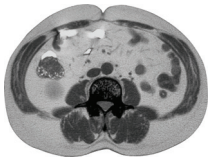
Our device uses BI method to estimate your body fat percentage.

Depending on where fat is distributed in the body, it is classified as visceral fat or subcutaneous fat.

What is Visceral Fat Level?

Visceral fat = fat surrounding internal organs

Too much visceral fat is thought to be closely linked to increased levels of fat in the bloodstream, which may lead to conditions such as high cholesterol, heart disease and type 2 diabetes. In order to prevent or improve conditions of common diseases, it is important to try and reduce visceral fat levels to an acceptable level. People with high visceral fat levels tend to have large stomachs. However, this is not always the case and high visceral fat levels can lead to metabolically obese. Metabolically obese (visceral obesity with normal weight) represents fat levels that are higher than average, even if a person's weight is at or below the standard for their height.

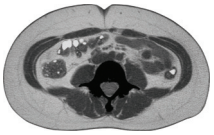


Sample Visceral Fat (MRI image)

What is Subcutaneous Fat?

Subcutaneous fat = fat below the skin

Subcutaneous fat not only accumulates around the stomach but also around the upper arms, hips and thighs, and can cause a distortion of the body's proportions. Although not directly linked to increased risk of disease, it is thought to increase pressure on the heart and other complications. Subcutaneous fat is not displayed in this unit, but is included in the body fat percentage.



Sample Subcutaneous Fat (MRI image)

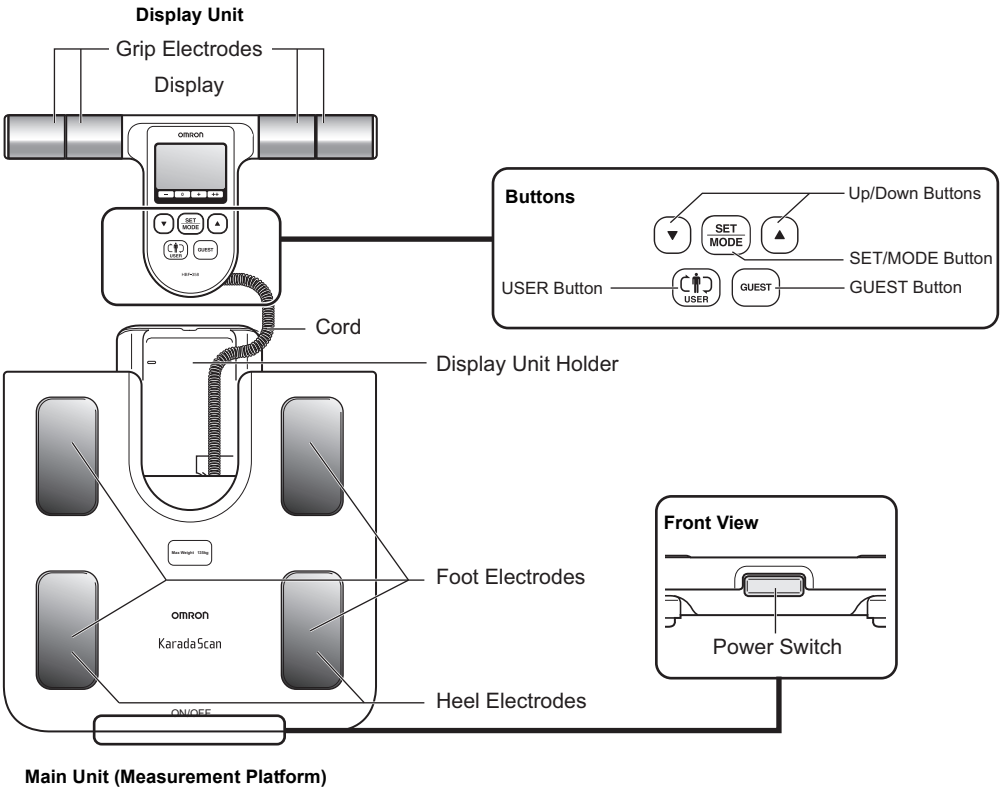
The reason calculated results may differ from actual body fat percentage

The body fat percentage measured by this unit may significantly differ from the actual body fat percentage in the following situations:

Elderly people / People with a fever / Body builders or highly trained athletes / Patients undergoing dialysis / Patients with osteoporosis who have very low bone density / Children in growth stage / Pregnant women / People with swelling

These differences may be related to changing ratios of body fluid and/or body composition.

1. Know Your Unit

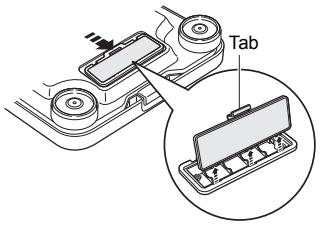


2. Inserting and Replacing the Batteries

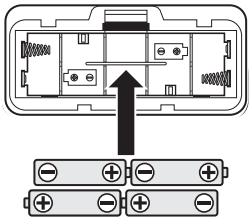
1. Open the battery cover on the back of the main unit.

1) Press the tab of the battery cover to release it.

2) Pull it up as shown.



2. Install the batteries in correct polarity as marked inside the battery compartment.



3. Close the battery cover.

Battery Life and Replacement

When the low battery indicator ( ) appears, replace all four batteries with new ones.
Items stored in memory are retained even if the batteries are removed.

- Replace the batteries after turning off the power.
- Disposal of used batteries should be carried out in accordance with the national regulations for the disposal of batteries.
- Four AA batteries will last approximately 1 year (when measurements are made four times a day).
- Because the supplied batteries are for trial use only, they may have a shorter life.

3. Setting and Storing Personal Data

For the measurement of body fat percentage and visceral fat level, it is necessary to set your personal data (age, gender, height).

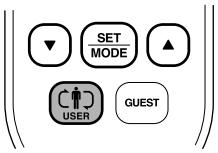
1. Turn on the power.



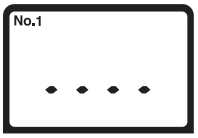
"CAL" blinks on the display, then the display changes to "0.0 kg".

* Wait until "0.0 kg" is displayed.

2. Press the USER button to select your personal profile number.

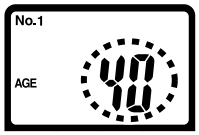


1) The selected number appears on the display.



2) Press the SET/ MODE button to confirm.

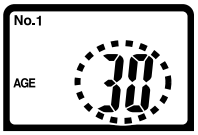
Then the default age setting blinks on the display.



3. [TO SET THE AGE]

Setting range: 10 to 80 years old

1) Press the ▲ or ▼ button to adjust the age.



2) Press the SET/ MODE button to confirm.

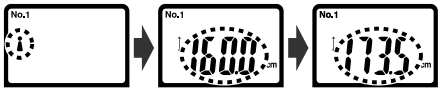
Then the gender icons blink on the display.



* The age can not be updated automatically. Please update the age after your every year's birthday. Measurement can not be taken accurately if age is not set correctly.

4. [TO SET THE GENDER AND HEIGHT]

Set the gender 🚹 (MALE) or 🚺 (FEMALE) and height in the same way.



After all the settings are displayed for your confirmation, "0.0 kg" appears on the display.



This completes the setting.

■ You cannot set personal set data in the following conditions. Please re-register personal data information (Refer to Pg 5).

- If no operation for more than five minutes when setting the data, the power will automatically switch off.
- If the power goes off while you are making changes.

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Changing the Personal Data

1. Turn on the power.

"CAL" blinks on the display, then the display changes to "0.0 kg".
Wait until "0.0 kg" appears on the display.

2. Press the USER button to select your personal profile number.

1) Your number flashes one time on the display.

2) Press the SET/MODE button to confirm.

Then the selected age setting blinks on the display.



3. With the ▲ or ▼ button, modify the selected item, followed by pressing SET/MODE button. The display will change in order of age, gender and height.

Deleting the Personal Data

1. Turn on the Power.

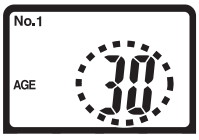
"CAL" blinks on the display, then the display changes to "0.0 kg".
Wait until "0.0 kg" appears on the display.

2. Press the USER button to select your personal profile number.

1) Your number flashes one time on the display.

2) Press the SET/MODE button to confirm.

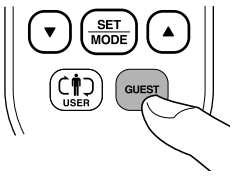
Then the selected age setting blinks on the display.

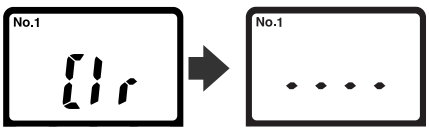


3. Delete the personal data.

Press the GUEST button for more than two seconds.

"Clr" will appear on the display and the personal data are deleted from memory.





Power Switch

The power will automatically switch off in the following conditions:

1. If the monitor is not used within one minute of "0.0 kg" appearing on the display.
2. If no information is entered for 5 minutes when entering personal data.
3. If the monitor is not used for 5 minutes after the measurement results are displayed.
4. Five (5) minutes after the result is displayed when measuring weight only.

4. Taking a Measurement

Measurement should be taken on a level and hard surface.
Please input your profile data before using the personal profile number button.
* If no input of personal data in advance, you can use "GUEST" button to take measurement.

1. Turn on the power.

"CAL" blinks on the display, then the display changes to "0.0 kg".



* If you step onto the unit before "0.0 kg" appears on the display, an error message "Err" will appear.

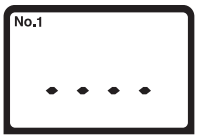
2. When the "0.0 kg" is displayed, take out the display unit.

Note: Do not take out the display unit until "0.0 kg" appears on the display. Otherwise, the weight of the display is add to your body weight which causes an incorrect result.

3. Select the personal profile number.

Press the USER button while holding the display unit. Selected number will appear after blinking once.

If the following display is indicated:



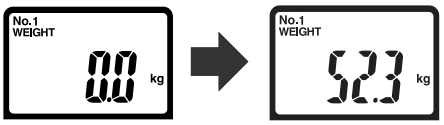
Your personal data is not stored in the personal profile number you have selected. Please see Section 3 to store personal data.

If you do not have personal data stored on the unit (GUEST mode):

1) Press the GUEST button while holding the display unit.
2) The GUEST indication "G" appears on the display.
3) Set the personal data (age, gender, and height). Read steps 3 through 4 in Section 3, Setting and Storing Personal Data.

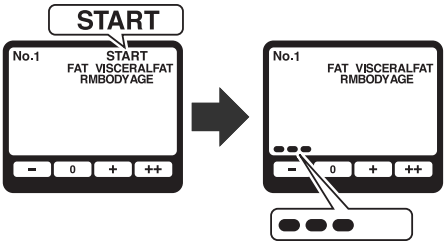
4. Start measurement.

1) Step on the main unit and place your feet on the foot electrodes with your weight evenly distributed.



The display will show your weight and then the weight result will blink twice.
The unit will then start to measure your body fat percentage, visceral fat level and so on.

2) When "START" appears on the display, extend your arms straight at a 90° angle to your body.

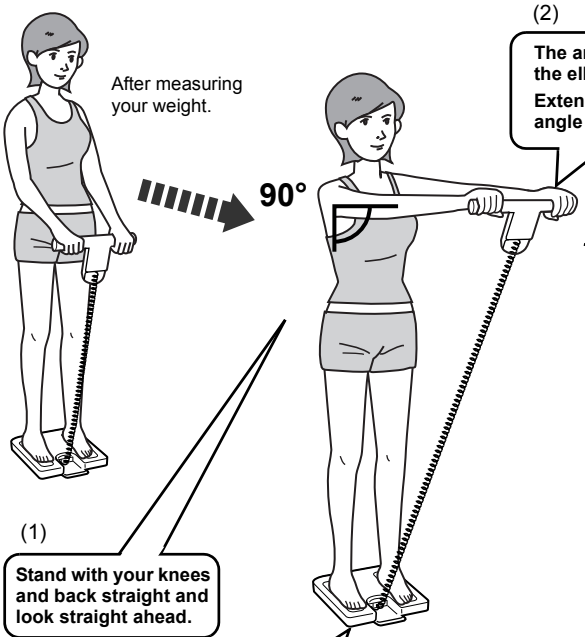


The indicators in the measurement progress bar at the bottom of the display will gradually appear, from left to right.

3) After the measurement is complete, your weight is displayed again. At this point you may step off the unit.



Correct Posture for Measurement



(1)

Stand with your knees and back straight and look straight ahead.

(2)

The arms are horizontally raised, and the elbows are extended straight.

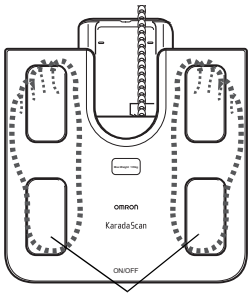
Extend your arms straight at a 90° angle to your body.

(3)



Hold the display unit so that you can see the display.

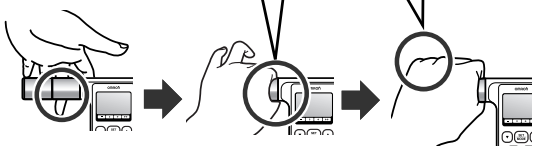
Step on the main unit bare-footed.



Heel Electrodes

- Make sure each of your heels is positioned on a heel electrode. Stand with your weight evenly distributed on the measurement platform.

Press your palms firmly on the grip electrodes.



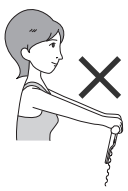
Place your middle fingers in the dent at the back of the grip electrodes.

Hold the inner grip electrodes firmly with your thumb and index finger.

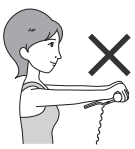
Hold the outer grip electrodes with your ring finger and small finger.

Postures to Avoid During Measurement

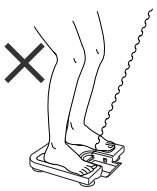
Arms too low or high



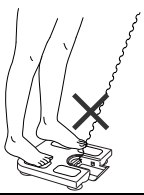
Display facing upwards



Knees bent



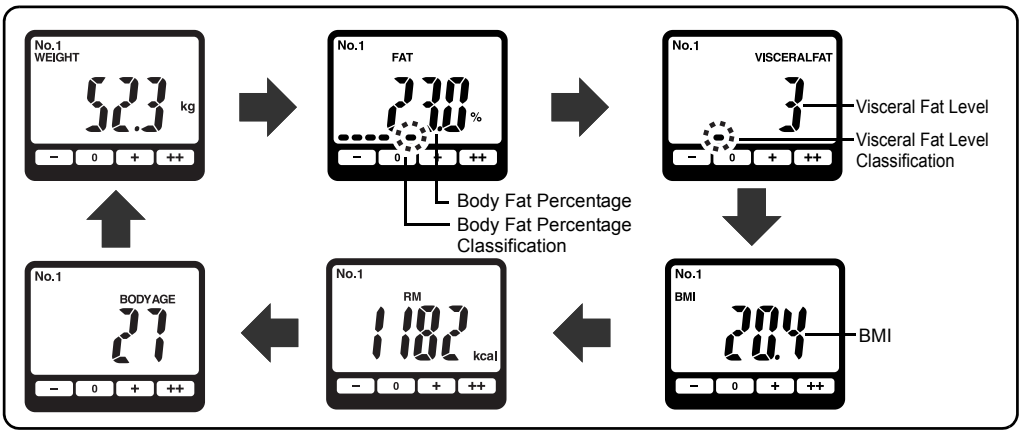
Your feet are not correctly positioned on the electrodes.



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5. Check the measurement results.

Press the SET/MODE button to view the desired measurement results. The display changes with each press of the SET/MODE button as follows: FAT -> VISCERAL FAT -> BMI -> RM -> BODY AGE -> WEIGHT (again)



Interpreting the Body Fat Percentage Result

Gender	Age	Low (–)	Normal (0)	High (+)	Very High (++)
Female	**20 - 39**	< 21.0%	21.0 - 32.9%	33.0 - 38.9%	≧ 39.0%
	40 - 59	< 23.0%	23.0 - 33.9%	34.0 - 39.9%	≧ 40.0%
	60 - 79	< 24.0%	24.0 - 35.9%	36.0 - 41.9%	≧ 42.0%
Male	**20 - 39**	< 8.0%	8.0 - 19.9%	20.0 - 24.9%	≧ 25.0%
	40 - 59	< 11.0%	11.0 - 21.9%	22.0 - 27.9%	≧ 28.0%
	60 - 79	< 13.0%	13.0 - 24.9%	25.0 - 29.9%	≧ 30.0%

Based on NIH/WHO guidelines for BMI
Based on Gallagher et al., American Journal of Clinical Nutrition, Vol. 72, Sept. 2000

Interpreting the Visceral Fat Level Result

Visceral Fat Level	Level Classification
1 - 9	0 (Normal)
10 - 14	+ (High)
15 - 30	++ (Very High)

According to Omron Healthcare figures

Interpreting the BMI Result

BMI	Classifications (by the WHO)
Less than 18.5	Underweight
18.5 or more and less than 25	Normal
25 or more and less than 30	Overweight
30 or more	Obese

The above-mentioned indices refer to the values for obesity judgment proposed by the WHO, the World Health Organization.

60-70% of daily energy use is for resting metabolism

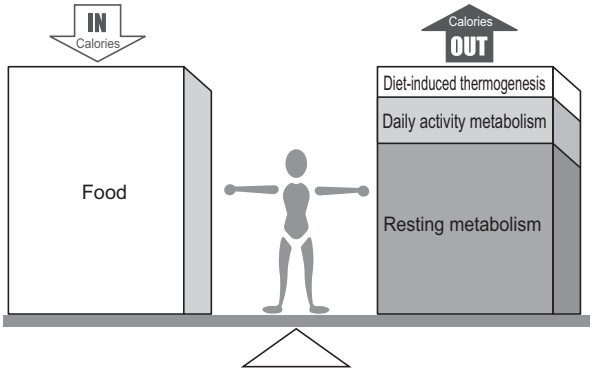
The total amount of energy used by the body in a typical day is as follows:

Resting metabolism	Energy required to maintain vital functions.
Daily activity metabolism	Energy used for daily activities such as commuting to work, household chores, hobbies etc.
Diet-induced thermogenesis	Energy emitted after eating a meal.

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The ratio of these is 60%-70% for resting metabolism, 20%-30% for daily activity, and 10% for diet induced thermogenesis. This means that resting metabolism accounts for most of our daily energy consumption.

If our daily caloric intake exceeds the amount of energy required for these activities, the additional calories can be stored as fat.



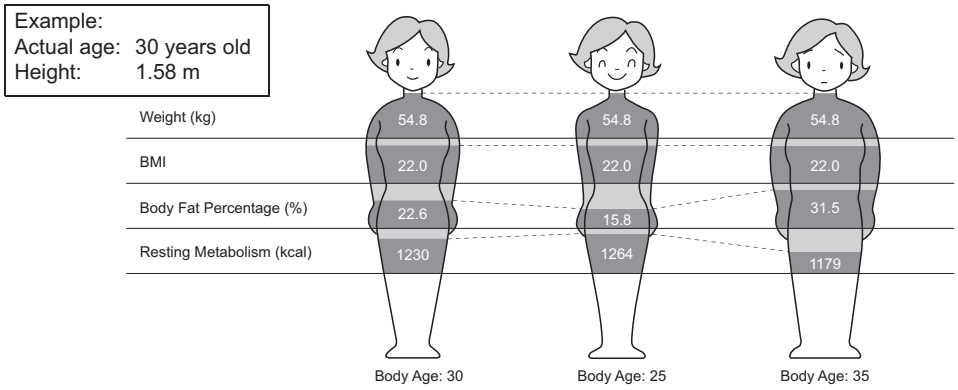
Body age varies according to Body composition and resting metabolism, even if your height and weight is the same

The figures below shows some examples of body age.

The example on the left has a body age of 30, or average body composition for the actual age.

The example in the middle has a lower body fat percentage than average and higher resting metabolism, which results in a body age of 25 that is younger than the actual age.

The example on the right has a higher body fat percentage than average and lower resting metabolism, which results in a body age of 35 that is older than the actual age.



6. After confirmation of the results, turn off the power.

Note: If you forget to turn off the power, the unit will be turned off automatically after 5 minutes.

5. Measuring Weight Only

Take measurement directly, and do not take out the operation panel from the holder.
* It is not necessary to set personal data when measuring weight only.

1. Turn on the power.



"CAL" blinks on the display, then the display changes to "0.0 kg".

* If you step onto the unit before "0.0 kg" appears on the display, an error message "Err" will appear.

2. When the "0.0 kg" is displayed, step onto the unit.

Note: Leave the display unit in the display unit holder.

3. Check the measurement result.

Your weight is displayed and blinks twice to indicate that measurement is completed.

Note: You can also check the measurement result by taking out the display unit.

4. When the measurement is completed, step down from the unit and turn off the power.

6. Error Displays

Error Display	Cause	Correction
Err 1	Your palms or soles are not in firm contact with the electrodes.	Press your palms or soles firmly to the electrodes, then measure. (Refer to Section 4.)
Err 2	The posture for measurement is wrong or the palms or soles are not in firm contact with the electrodes.	Measure without moving the hands or soles. (Refer to Section 4.)
Err 3	The palms or soles are too dry.	Moisten the palms or soles with a wet towel, then repeat measurement.
Err 4	Values of body composition are out of measurable range.	• Please ensure that age, gender and height settings stored as personal data are correct (see Setting Items in Section 9). • The main unit cannot measure body composition outside its measurement range, even if the Age, Gender and Height settings are correct. (Refer to Section 3).
Err 5	Abnormal operation.	Insert the batteries again and repeat measurement. If this error still occurs, consult your OMRON service representative.
Err	You stepped on the unit before the display indicated "0.0 kg".	Step on the main unit after the display indicates "0.0 kg".
	You moved the main unit before the display indicated "0.0 kg".	Do not move the main unit until the display indicates "0.0 kg".
	You moved your body while measuring body weight.	Do not move while measuring body weight.
	Your weight is 150 kg or over.	Body weight of 150 kg or over is out of the measuring range of this unit. You cannot use this unit.

7. Troubleshooting

Problem	Cause	Correction
0.0 kg is displayed even when you step onto the unit, or the weight value barely increases.	You stepped onto the unit before 0.0 kg was displayed.	Wait until 0.0 kg is displayed before stepping onto the unit.
The value of body weight is displayed abnormally high or low.		
The body composition value is displayed abnormally high or low. The body composition values vary widely for each measurements.	Is the unit placed on a carpet or other soft flooring? Is the floor surface is uneven?	Place the unit on a hard and level floor.
	The soles of your feet, or whole body are cold, causing poor blood circulation.	Warm yourself up, then take a measurement once you feel your circulation is back to normal.
	The electrodes are extremely cold.	Place the unit in a warm room for a few minutes, and then take a measurement when the electrodes no longer feel cold.
	Feet are too dry.	Slightly moisten the soles of your feet with a damp towel and try again.
"- - - -" is displayed for some of the results.	This unit cannot measure body composition outside its measurement range, even if the height, gender and birth date settings are correct. For children under nine or people 81 years old or older: Only weight and BMI are displayed. For children over 10 and under 17 years old: All results except for Visceral Fat Level and Body Age are displayed. For people over 18 to 80 years old: All results are displayed.	Check the setting entered for your personal data. Change the settings if needed. Retake the measurement. (Refer to Section 3.)
Nothing is displayed when the power is turned on.	Batteries are not inserted.	Insert the batteries. (Refer to Section 2.)
	The polarities of batteries are not aligned correctly.	Insert the batteries in correct alignment. (Refer to Section 2.)
	The batteries are worn out.	Replace all four batteries with new ones. (Refer to Section 2.)
You want to measure your body composition, but body composition measurement does not start after the weight measurement has been displayed.	A personal data has not been set, or the ▲ UP/GUEST button was not pressed (Neither a Personal ID Number 1, 2, 3, 4, or Guest is displayed.)	Enter personal data for a Personal ID Number or use Guest mode. (Refer to Section 3.)

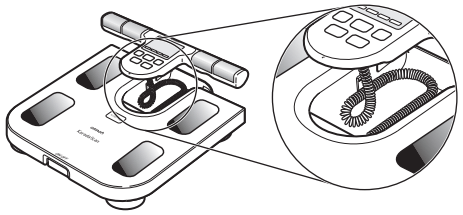
8. How to Take Care of and Store the Unit

How to Clean the Unit

- Always keep the unit clean before use.
- Wipe the main unit with a soft dry cloth.
  If necessary, use a cloth moistened with water or detergent and squeeze it well before wiping the unit, then wipe dry with a dry cloth.
- You can use rubbing alcohol to clean the electrodes, but do not use it on other parts of the unit.
- Do not use benzene or thinner, to clean the unit.

Care and Storage

- Store the display unit in the main unit as shown.
- When storing the display unit, be careful not to crease the cord.



- Do not store the unit in the following conditions:
  - Humidity, where moisture or water may get into the unit
  - High temperatures, direct sunlight or dusty places
  - Places with the risk of sudden shocks or vibrations
  - In places where chemicals are stored or where corrosive gas is present.

- Do not carry out repairs of any kind yourself. If a defect occurs, consult the OMRON distributor or Customer Services as mentioned on the packaging.

9. Technical Data

Product	Body Composition Monitor	
Model	**HBF-358-BW (HBF-904-APBW)**	
Display	**Body Weight:**	0 to 100 kg with an increment of 0.1 kg 100 to 135 kg with an increment of 0.2 kg
	Body Fat Percentage:	5.0 to 50.0% with an increment of 0.1%
	BMI:	2.5 to 90.0 with an increment of 0.1
	Resting Metabolism:	385 to 3999 kcal with 1 kcal increments
	Body Age:	18 to 80 years old with 1 year increments
	Visceral Fat Level:	30 levels with an increment of 1 level
	Body Fat Percentage Classification: – (Low) / 0 (Normal) / + (High) / ++ (Very High) with 12 levels of Bar display **Visceral Fat Level Classification:** 0 (Normal) / + (High) / ++ (Very High) with 9 levels of Bar display *For children under 10 or people 81 years old or older: Only weight is displayed. *For children over 9 and under 18 years old: All results except for Visceral Fat Level and Body Age are displayed. *For people over 17 to 80 years old: All results are displayed.	
Set Items	**Height:** 100.0 to 199.5 cm **Age:** 10 to 80 years old **Gender:** Male/Female *Measurement Units: kg (cm) *When using Guest mode, personal data is entered at the time of measurement.	
Weight Accuracy	0.0 - 40.0 kg: ±400 g 40.0 - 135 kg: ±1 %	
Power Supply	4 AA batteries (R6) (You may also use AA alkaline batteries (LR6))	
Battery Life	Approximately 1 year (New manganese batteries are used with four measurements a day when temperature is 23°C)	
Operating Temperature / Humidity	+5°C to +35°C, 30% to 85% RH	
Storage Temperature/ Humidity/Air Pressure	-20°C to +60°C, 10% to 95% RH, 700 hPa - 1060 hPa	
Weight	Approximately 2.1 kg (including batteries)	
External Dimensions	**Display Unit:**	Approx. 300 (W) × 35 (H) × 147 mm (D)
	Main Unit:	Approx. 303 (W) × 55 (H) × 327 mm (D)
Package Contents	Body Composition Monitor, 4 AA manganese batteries (R6), instruction manual	

Note: Subject to technical modification without prior notice.

Please read the instruction manual carefully before using the device.