

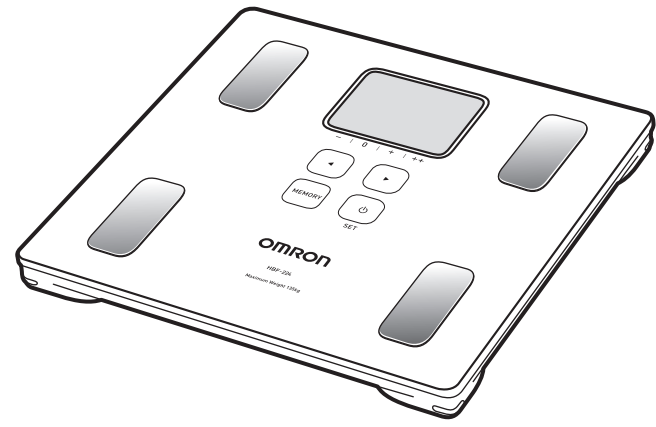
INSTRUCTION MANUAL

OMRON

Body Composition Monitor

Model HBF-224

BodySCAN



Thank you for purchasing the OMRON Body Composition Monitor.

Please read this Instruction Manual thoroughly before using the unit.

Please keep this Instruction Manual for future reference.

All for Healthcare

9301973-8A
HBF-224-APDB

1. ABOUT THE BODY COMPOSITION MONITOR

The Body Composition Monitor is equipped with an automatic recognition function to recognize who is using the monitor in accordance with the registered personal data.

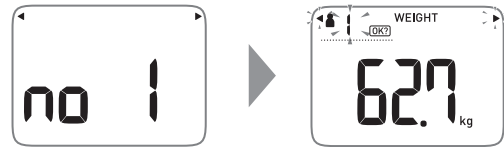
How does automatic recognition works?



Be sure to register your personal data before using the automatic recognition function.

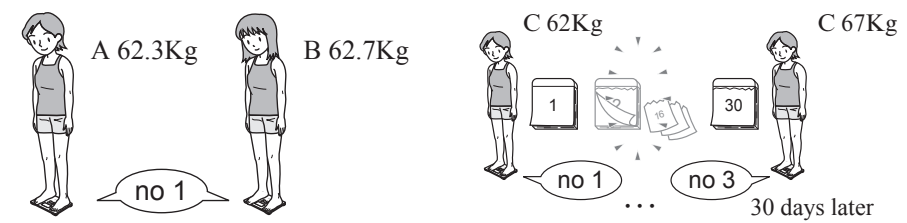
Refer to REGISTERING PERSONAL DATA (Page 4).

Your Personal Profile Number will be displayed after the measurement. Check your Personal Profile Number.



Wrong Personal Profile Number may be displayed in the following cases.

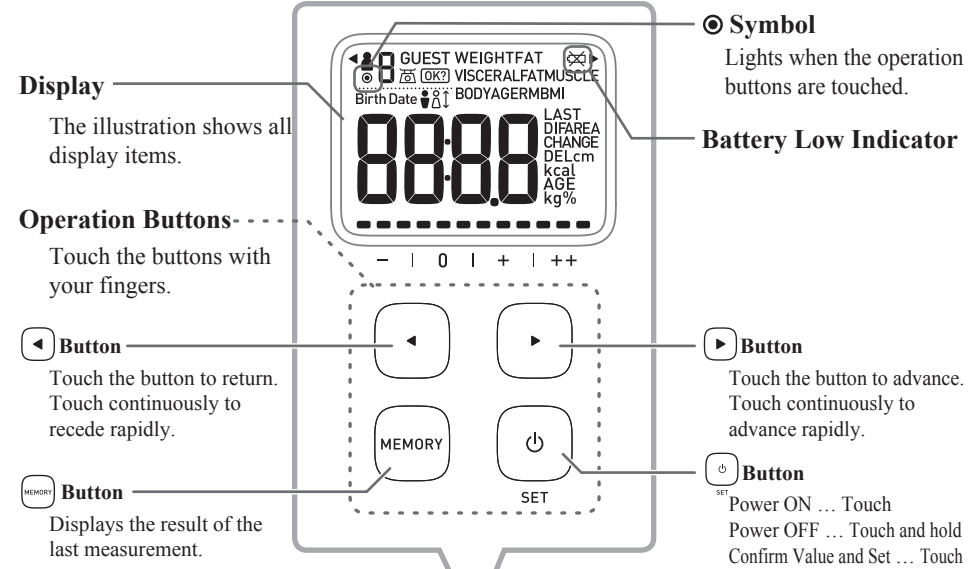
- Users of similar body type and body weight are measured.
- Your body weight has changed since last measurement.



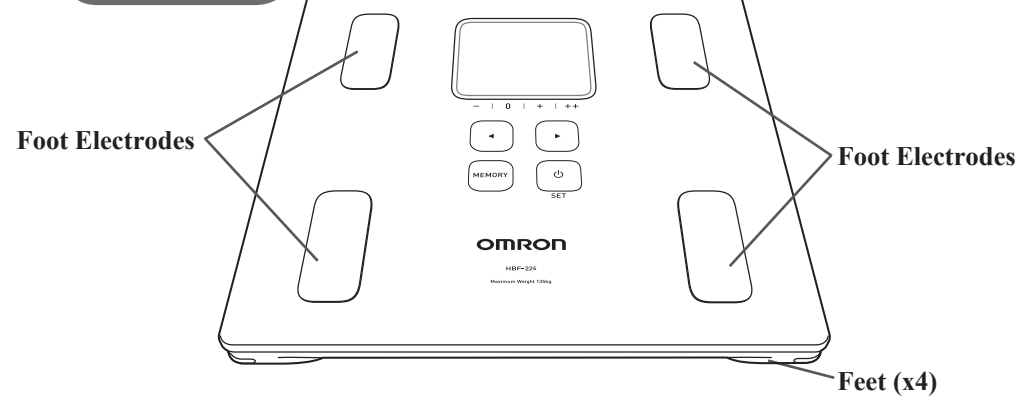
If inaccurate recognition continues, select your Personal Profile Number before taking a measurement. Refer to Select Personal Profile Number and Take a Measurement on HOW TO TAKE A MEASUREMENT (Page 7).

2. KNOWING YOUR UNIT

Display and Buttons



Main Unit



3. SAFETY NOTES

Please read carefully before use.

- The following is intended to prevent personal injury or property damage of the user or other people caused by the product.
- Symbols and definitions are as follows.

Meaning of danger, warning and caution

	Improper use may cause danger resulting in death or serious injury.
	Improper use may result in possible death or serious injury.
	Improper use may result in injury or property damage*.

* Property damage includes damage to house, property, livestock and pet.

Meanings

- Compulsory item (which must be observed).
- Forbidden item (which is not permitted).

Danger

Never use this unit in combination with the following medical electronic devices.

- Medical electronic implants such as pacemakers.
- Electronic life support systems such as an artificial heart/lung.
- Portable electronic medical devices such as electrocardiograph.

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

Warning

Although tempered glass is used, please avoid imposing strong impact on the main body like knocking it down, dropping it, dropping things on it.

- Otherwise, the impact might break the glass and cause injury. Or incorrect measurement might be caused.

Do not use the unit on tiles or other surfaces that may be slippery, such as a wet floor.

- Otherwise, slip and injury might be caused.

Do not use this unit immediately after taking a bath, or when your body, hands or feet are wet.

- Otherwise, slip and injury might be caused.
- Otherwise, water might get into this unit and cause a failure or incorrect measurement.

Do not jump or bounce on the unit.

- Otherwise, falling and injury might be caused. Or the impact might exceed its application range and causes damage.

Do not step on the edge of the unit.

- Otherwise, falling and injury might be caused. Or incorrect measurement might be caused.

Do not use without any assistance if the user has a disability.

- Otherwise, falling and injury might be caused.

Never start weight reduction or exercise therapy solely based on your own judgment. Be sure to follow the instructions of a doctor or specialist.

- Otherwise, self-judgment might cause damage to your health.

Caution

Do not try to disassemble, repair or remodel the unit.

- Otherwise, a failure or injury might be caused.

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 use a cellular phone near the unit

- Incorrect measurement might be caused.

Do not let an infant carry it.

- Otherwise, injury might be caused.

Caution

Stand on the unit bare-footed.

- Otherwise, slip and injury might be caused or incorrect measurement might be taken.

Keep this unit out of the reach of young children.

- Otherwise, injury might be caused.



Insert the batteries with the polarities in correct direction.

- Otherwise, heat generation, liquid spill or rupture might cause damage of the unit or injury.

Use the specified battery.

- Do not use new and worn batteries together or use batteries of a different kind together.
- Otherwise, heat generation, liquid spill or rupture might cause damage of the unit or injury.

Remove the batteries from this unit when you are not going to use it for a long period (approximately three months or more) of time.

Additionally, immediately remove a battery which has run out and replace all batteries with new ones at the same time.

- Otherwise, heat generation, liquid spill or rupture might cause damage of the unit or injury.

Notes

Notes on Installation

Do not place this unit in highly humid environment, where water may splash, under direct sunshine, in a place where the air conditioner blows directly, or near fire.

- Otherwise, it might cause malfunction.

Do not place this unit on cushioned floor surface such as on carpet or a mat to avoid incorrect measurement.

- Otherwise, when stepping on the main unit, it will be sunken and measurement will be affected.

Notes on use

Clean the monitor before using the unit with people who have a skin or foot disease.

- Otherwise, it will cause infection. If use the unit together, use a cloth moistened with water or neutral detergent to squeeze it well before wiping the unit, then wipe dry with a dry cloth.

Do not use the unit for purpose other than measuring weight and body composition.

- Otherwise, when stepping on the main unit, it will be sunken and measurement will be affected.

Notes on operation buttons

- Otherwise, it might cause malfunction.

Notes on daily maintenance

Do not wash display unit or the main unit.

- Otherwise, it might cause malfunction.

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 neutral detergent and squeeze it well before wiping the unit, then wipe dry with a dry cloth.

Do not wipe the unit with benzene or paint thinner.

- Otherwise it might cause decoloration or malfunction.

When cleaning the unit, prevent from touching the buttons and change or delete the personal data.

Notes on storage

If storing the unit in a vertical position, always secure it so that it will not fall over.

Do not store the unit in the following conditions.

- Where water may get in.
- Extreme high temperature and humidity, direct sunshine, and dusty places.
- Where there will be sudden shock or vibration.
- In storage places of chemicals or where corrosive gas is present.

Do not place objects on the unit or store it upside-down.

- Otherwise, it might cause malfunction.

INCORRECT MEASUREMENT

A target user of the unit should be above 6 years old.

Incorrect measurement might occur to the following users:

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

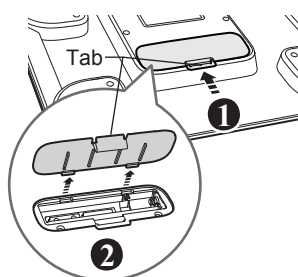
Because the body composition such as body water might greatly deviate from the average value.

If you have doubt about the measured results, refer to TROUBLESHOOTING (Page 9).

4. BATTERY INSTALLATION

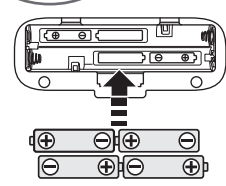
Open the Battery Cover on the back of the unit.

- Press the tab on the battery cover in the direction of the arrow to release the cover as illustrated.
- Pull the tab of the cover upwards.



Insert the batteries by aligning them as indicated.

The end with the spring is for the negative terminal.



Close the battery cover.

Battery Life and Replacement

New batteries will last for approximately one year (when manganese batteries are used with four measurements a day at a room temperature of 23°C).

- Because the supplied batteries are for trial use only, they may have a shorter life.
- Do not use rechargeable batteries. This could cause inaccurate operation.

When the Battery Low Indicator flashes, it indicates running out of the battery.

Replace with four new batteries at the same time.

Replace the batteries after turning off the main unit power.

- Measurement values and personal profiles stored in the memory will not be deleted during battery replacement.
- Dispose of the device, batteries and components according to applicable local regulations.

About the Power Off Function

Touch the button for 3 seconds or longer to turn off the power. The "OFF" symbol appears on the display when the power is turned off.



The power is automatically turned off in the following conditions:

- If the unit is not used within 1 minute of "0.0 kg" appearing on the display.
- If no personal data information is entered within 3 minutes.
- If the unit is not used for 30 seconds after weight result is displayed.
- If the unit is not used for 3 minutes after body composition results are displayed.
- 10 seconds after the "Err" symbol appears on the display.

5. SETTING THE AREA, DATE AND TIME

In order to measure your weight accurately, the product will correct the deviation caused by gravitational acceleration. Accurate measurement cannot be conducted if the area of the usage place, date and time are not correctly set.

Please input "2" as the area code of the usage place.

1 Touch the button to turn on the power.

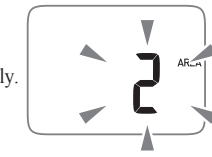
2 Set "AREA".

Use the left and right arrow buttons to change and then use the SET button to confirm.

Every time the left and right arrow buttons are touched, area codes "2" and "1" will be displayed alternately.

Please select area code "2".

Once area code is confirmed, the year begins to blink.



3 Set "DATE".

Touch the left and right arrow buttons to change the year.

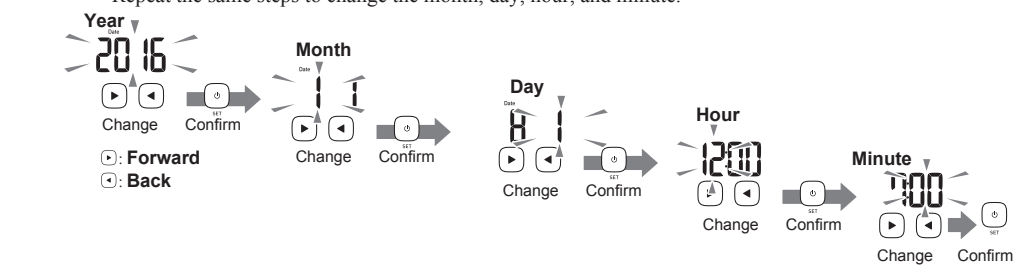
The setting range is January 1, 2016 - December 31, 2040.

When the display reaches 2040, it will return to 2016.

4 Set "TIME".

Touch the SET button to confirm the year and then the month flashes.

Repeat the same steps to change the month, day, hour, and minute.



After the settings for year, month, day, hour and minute are displayed in that sequence, the power is automatically turned off.

When error occurs during setting...

Turn on the power. If "year" flashed, please start from step 2 of SETTING THE AREA, DATE AND TIME.

The power is automatically turned off during setting...

Turn on the power to reset. If no operation for 3 minutes during setting, the power will be automatically turned off.

When you want to modify date and time which have already been set...

Remove the batteries and insert again after 20 seconds at least, and then turn on the unit. If "AREA" flashes, start from step 2 of SETTING THE THE AREA, DATE AND TIME.

6. REGISTERING PERSONAL DATA

To use the automatic recognition function, you must register your personal data in advance.

You can register personal data of up to 4 persons.

Those whose personal data have not been registered can use a Guest mode to measure his/her body composition.

What is a Guest mode? Refer to For Those Who Use the Guest Mode to Take a Measurement (Page 7).

1 Touch the button to turn on the power.

All symbols appear on the display briefly, then the display changes to "0.0kg".

2 Select a Personal Profile Number.

Touch the left and right arrow buttons to select a Personal Profile Number, and then touch the SET button.

If "0.0kg" is displayed, then that Personal Profile Number has already been registered. Choose a different Personal Profile Number or delete the personal data for that number. Refer to CHANGE/DELETE PERSONAL DATA (Page 7).

3 Set the date of birth.

Touch the left and right arrow buttons to change the date, and then touch the SET button.

Complete setting in the sequence of "YEAR OF BIRTH", "MONTH OF BIRTH" and "DAY OF BIRTH".

The setting range is January 1, 1900-December 31, 2040.

Once the "Birth Date" is confirmed, the gender symbol will blink.

4 Set the gender.

Touch the left and right arrow buttons to change the gender, and then touch the SET button.

Once the gender is confirmed, the height symbol will blink.

5 Set the height.

Touch the left and right arrow buttons to change the height, and then touch the SET button.

The setting range is 100.0-199.5cm.

Once the height is confirmed, "0.0kg" will be displayed after the date of birth, gender and height are displayed.

6 Step on the main unit.

Use the automatic recognition function to take a measurement and record the data of body composition in the unit.

Refer to CORRECT MEASUREMENT METHOD (Page 5).

If the power has turned off before you step on the main unit, select your Personal Profile Number.

Refer to Select Personal Profile Number and Take a Measurement on HOW TO TAKE A MEASUREMENT (Page 7).

7 Once the body composition is displayed, the measurement is finished.

Refer to Check the Measurement Results for the check method of the measurement results (Page 6).

Now, you have completed personal data registering.

Touch the button for 3 seconds or longer to turn off the power.

Your personal data have not been registered in the following cases. Please re-register the personal data information.

- If no buttons are touched for 3 minutes while setting the personal data and the power is automatically turned off.
- If the power goes off while you are configuring settings.

CORRECT MEASUREMENT METHOD

Measurement should be taken on level and hard surface.

Do not place this unit on cushioned floor surface such as on carpet or a mat to avoid incorrect measurement.

Do not touch or move the main unit or add objects on it before "0.0kg" is displayed after the power is turned on. Otherwise, it might cause incorrect measurement.

When all symbols are lighted, the preparation for a correct measurement has been taken. If the main unit is moved or a load is applied onto it before "0.0kg" is displayed, "Err (error)" might be displayed or incorrect measurement might be taken. Refer to TROUBLESHOOTING (Page 9).

Step on the Main Unit barefoot.

Set both feet on the electrodes.

If you wear shoes, correct measurement cannot be taken.

Postures to Avoid During Measurement!

Incorrect posture may result in inaccurate measurement of body composition.

Crouching, Knees bent, Your feet are not correctly positioned on the electrodes.

The above scenario might be displayed during measurement. Wait for a moment.

7. HOW TO TAKE A MEASUREMENT

When the automatic recognition function is used to take a measurement, register your personal data in advance.

Refer to REGISTERING PERSONAL DATA (Page 4).

Even if you do not have personal data information stored on the unit, you can use Guest mode to measure body composition.

When the body composition is displayed, the measurement is finished.

Step off the main unit.

7-1. Use the Automatic Recognition Function to Take a Measurement

1 Touch the button to turn on the power.

All symbols appear on the display briefly, then the display changes to "0.0kg".

2 Take a measurement.

Step on the main unit.

Refer to CORRECT MEASUREMENT METHOD (Page 5).

2 When the body composition is displayed, the measurement is finished.

Step off the main unit.

3 Check your Personal Profile Number.

If your Personal Profile Number is correct...

Touch the SET button, your Personal Profile Number is confirmed and disappears.

After making a confirmation, you can switch to a desired measured value with the left and right arrow buttons.

Even if you turn off the power while your Personal Profile Number or blinks, it will be recorded as the measured value of the displayed Personal Profile Number.

■ If your Personal Profile Number is incorrect...

Select your correct Personal Profile Number with the ◀ or ▶ button and touch the (SET) button.

Then, your Personal Profile Number is confirmed and [OK] disappears.

■ If you select an incorrect Personal Profile Number...

Once you touch the (SET) button, you have to select your Personal Profile Number again. Therefore, select a correct Personal Profile Number with the ◀ or ▶ button and touch the (SET) button to make a confirmation.

■ When “No.1” to “No.4” blink or when “GUEST” is displayed, your Personal Profile Number cannot be registered.

Select the Personal Profile Number you want to register with the ◀ or ▶ button and touch the (SET) button to make a confirmation to register the personal data.

Refer to REGISTERING PERSONAL DATA (Page 4).

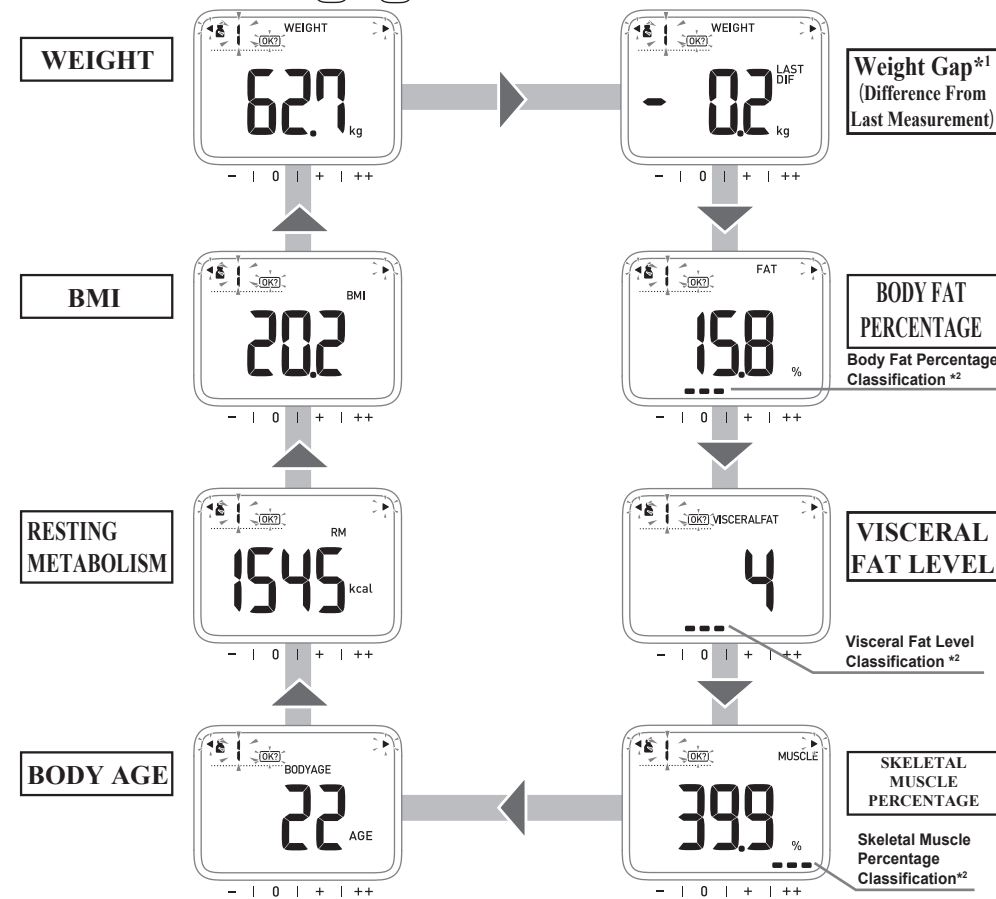
NOTE Wrong Personal Profile Number may be displayed in the following cases.

• You have a body type or body weight similar to another user. • Your body weight changes significantly. If inaccurate recognition continues, select your Personal Profile Number before making a measurement. Refer to Select Personal Profile Number and Take a Measurement on HOW TO TAKE A MEASUREMENT (Page 7).

3 Check the Measurement Results.

The results display rotates automatically.

Once you confirm your Personal Profile Number, you can switch it to a measured value you want to view with the ◀ or ▶ button.



*If there are no results for the last measurement or the Weight Gap exceeds the display range, the “- - -” symbol is displayed.

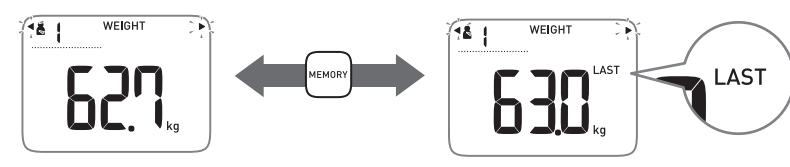
*Use the “- - -” symbol as a guide to measurement. In the example shown in the screen, the body fat percentage is determined as 0 (Normal), the visceral fat level is determined as 0 (Normal) and the skeletal muscle percentage is determined as ++ (Very High). Refer to UNDERSTANDING YOUR MEASUREMENT RESULTS (Page 8) for details of index.

VIEWING THE LAST MEASUREMENT RESULTS

• If you want to display the last measurement result, touch the (LAST) button after confirming your Personal Profile Number (When [OK] is not displayed).

Touch the (LAST) button again to return to the current measurement result.

If you touch the ◀ or ▶ button while the last result is displayed, the result will be switched to another index.



If there are no results for the last measurement, the “- - -” symbol is displayed.

• You can also view the last measurement result without measuring your body composition. Select your Personal Profile Number and touch the (LAST) button after you turn on the power and “0.0kg” is displayed.

4 Turn off the power after you check the measurement results.

Hold the (OFF) button for 3 seconds or longer to turn off the power.

7-2. Select Personal Profile Number and Take a Measurement

1 Touch the (SET) button and turn on the power.

All symbols appear on the display briefly, then the display changes to “0.0kg”.

2 Select your Personal Profile Number. Select your Personal Profile Number or “GUEST” with the ◀ or ▶ button and touch the (SET) button.

When “no 1” to “no 4” blink,

Your personal data are not registered in your selected Personal Profile Number. Register your personal data. Refer to REGISTERING PERSONAL DATA (Page 4).

3 Take a measurement.

① Step on the main unit.

Refer to CORRECT MEASUREMENT METHOD (Page 5).

② When the body composition is displayed, the measurement is finished.

Step off the main unit.

4 Turn off the power after you check the measurement results.

Touch the (OFF) button for 3 seconds or longer to turn off the power.

For Those Who Use the Guest Mode to Take a Measurement

What is a Guest mode?

With this mode, you can measure your body composition without registering your personal data in advance by entering your date of birth, gender and height each time. When the Guest mode is used to take a measurement, the last measurement result cannot be checked.

① Select Guest “no-”.

② Set the date of birth, gender and height.

“YEAR OF BIRTH” blinks. Make a setting following Step 3 through Step 5 in REGISTERING PERSONAL DATA (Page 4).

8. MEASURING WEIGHT ONLY

Even if you measure your weight only, it is necessary for you to register your personal data.

■ Measurement should be taken on level and hard surface.

NOTE Do not place this unit on cushioned floor surface such as on carpet or a mat to avoid incorrect measurement.

1 Touch the (SET) button to turn on the power.

All symbols appear on the display briefly, then the display changes to “0.0kg”.

NOTE Do not touch or move the main unit or add objects on it before “0.0kg” is displayed. Otherwise, it might cause incorrect measurement.

2 Select weight “no 0”.

Select “no 0” with the ◀ or ▶ button and touch the (SET) button to make a confirmation.

3 Step on the main unit.

4 Check the body weight result.

The body weight result blinks to inform confirmation.

5 Step off the main unit and turn off the power.

Touch the (OFF) button for 3 seconds or longer to turn off the power.

9. CHANGE/DELETE PERSONAL DATA

NOTE If your Personal Profile Number is used by someone else, delete it and make a registration again instead of changing it.

1 Touch the (SET) button to turn on the power.

All symbols appear on the display briefly, then the display changes to “0.0kg”.

2 Select the Personal Profile Number to be changed/deleted with the ◀ or ▶ button.

When “no 1” to “no 4” blink...

Your personal data are not registered in your selected Personal Profile Number. Register your personal data. Refer to REGISTERING PERSONAL DATA (Page 4).

3 Touch the (SET) button to make a confirmation.

“←” “→” disappear.

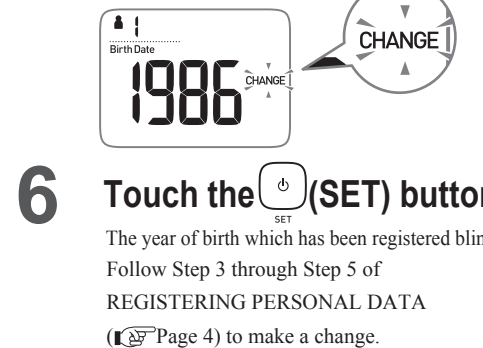
4 Touch the (SET) button again.

“CHANGE” and “DEL” blink on the display. Touch the (SET) button to cancel the operation.

To Change Personal Data

5 Select “CHANGE” symbol with the ◀ or ▶ button.

The “CHANGE” symbol blinks on the display.



If a wrong setting is made during change, confirm until the height and operate from the very beginning once more to make a change.

Now, you have successfully changed your personal data.

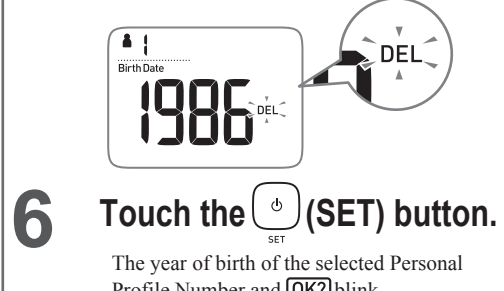
You can continue to measure your body composition.

If you do not take a measurement, touch the (OFF) button for 3 seconds or longer to turn off the power.

To Delete Personal Data

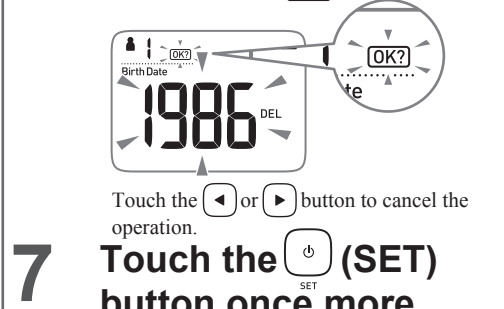
5 Select “DEL” symbol with the ◀ or ▶ button.

The “DEL” symbol blinks on the display.



6 Touch the (SET) button.

The year of birth of the selected Personal Profile Number and [OK] blink.



7 Touch the (SET) button once more.

After “Clr” is displayed, the date of birth can be set.

Now, you have successfully deleted the power.

Touch the (OFF) button for 3 seconds or longer to turn off the power.

10. UNDERSTANDING YOUR MEASUREMENT RESULTS

<BMI>

In accordance with the international index to judge obesity, an ideal body weight is at BMI “22”.

*The obesity classification standard advocated by Japan Society for the Study of Obesity (Year 2000).

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

<Resting metabolism>

Energy necessary for life sustaining.

Age (Years old)	Male		Female	
	Standard Body Weight (kg)	Resting Metabolism (kcal/day)	Standard Body Weight (kg)	Resting Metabolism (kcal/day)
6 to 7	22.0	980	22.0	920
8 to 9	27.5	1,120	27.2	1,040
10 to 11	35.5	1,330	34.5	1,200
12 to 14	48.0	1,490	46.0	1,360
15 to 17	58.4	1,580	50.6	1,280
18 to 29	63.0	1,510	50.6	1,120
30 to 49	68.5	1,530	53.0	1,150
50 to 69	65.0	1,400	53.6	1,110
70 and above	59.7	1,280	49.0	1,010

*The basic value is a standard. The product calculates the resting metabolism in accordance with the body composition result.

<Body Fat Percentage>

It is the proportion of the weight of body fat to the body weight.

Body Fat Percentage		Classification
Male	Female	
5.0 to 9.9%	5.0 to 19.9%	- (Low)
10.0 to 19.9%	20.0 to 29.9%	0 (Normal)
20.0 to 24.9%	30.0 to 34.9%	+ (High)
25.0% to	35.0% to	++ (Very High)

<The obesity classification value advocated by Lohman (in 1986) and Nagamine (in 1972) is used as a reference>

11. TROUBLESHOOTING

■ When Error Messages Display

Error Display	Cause	Correction
Err 1	You step off the unit during the measurement. Your feet are not correctly positioned on the electrodes.	Do not step off the unit till the measurement is completed. (Refer to CORRECT MEASUREMENT METHOD.) (Page 5) Make sure that you are standing on the unit correctly and try again. (Refer to CORRECT MEASUREMENT METHOD.) (Page 5)
Err 2	The measurement position is not stable or your feet are not placed correctly. Feet are too dry.	Remain still and do not move during measurement. Slightly moisten the soles of your feet with a damp towel and try again. (Refer to CORRECT MEASUREMENT METHOD.) (Page 5)
Err 5	The unit is not set up correctly.	Remove the batteries. Wait 1 minute. Reinstall the batteries. Touch (SET) button and turn on the power. Retake the measurement.
Err	You step onto the unit before 0.0 kg is displayed.	Wait until 0.0 kg is displayed before stepping onto the unit.
	The unit moved before 0.0 kg is displayed.	Do not move the unit until 0.0 kg is displayed.
	Movement during measurement.	Do not move till measurement is completed.
	When measuring, body weight range is exceeded.	

■ TROUBLESHOOTING TIPS

Problem	Cause	Correction
Nothing is displayed when the power is turned on.	Batteries are not inserted. The polarities of batteries are not aligned correctly. The batteries are worn out.	Insert the batteries. Refer to BATTERY INSTALLATION (Page 3). Insert the batteries in correct alignment. Refer to BATTERY INSTALLATION (Page 3). Replace the batteries with new ones. Refer to BATTERY INSTALLATION (Page 3).
“0.0 kg” is displayed or the weight value barely increases even when you step onto the unit.	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.	Your posture is not correct and measurement cannot be taken. The measurement is taken on soft floor surface such as carpet or uneven floor surface. The soles of your feet, or whole body are cold, causing poor blood circulation. The electrodes are extremely cold. Feet are too dry.	Stand still in the correct posture to take a measurement. Refer to CORRECT MEASUREMENT METHOD (Page 5). Place the unit on a hard and level floor. Warm yourself up, and then take a measurement once you feel your circulation is back to normal. Place the unit in a warm room for a few minutes, and then take a measurement when you feel cold no longer by touching the electrodes. Slightly moisten the soles of your feet with a damp towel and try again.
The measured value is displayed abnormally high or low. The measured values vary widely for each measurement.	Your body weight has changed a lot since last measurement. Your body type and weight are similar to another user who has been registered.	Select your personal profile number before measurement. Refer to Select Personal Profile Number and Take a Measurement on HOW TO TAKE A MEASUREMENT (Page 7).
You are not correctly recognized by the automatic recognition function.	You select “No.0” for your body weight only. (A Personal Profile Number or GUEST is not displayed)	Select your Personal Profile Number or GUEST correctly before making a measurement. Refer to Select Personal Profile Number and Take a Measurement on HOW TO TAKE A MEASUREMENT (Page 7).
You want to measure your body composition, but body composition measurement does not start after the weight measurement has been displayed.	The buttons are wet or dirty.	Wipe the water or dirt off the buttons and try again.
Nothing happened when you touch the buttons.	You touch the buttons while standing on the main unit. You touch two or more buttons at the same time.	Step off the main unit before touching them. Touch the buttons one by one.
Some result is displayed as “- - -”	The registered value or the body composition value exceeds the measurement range available.	Please check whether the date, date of birth, gender and height settings are wrong. Refer to CHANGE/DELETE PERSONAL DATA (Page 8). Even if the date, date of birth, gender and height are correctly set, you may not take a measurement in case that they exceed the measurement range available or the user is under a suitable age. Refer to SPECIFICATIONS display (Page 10).
The power is automatically turned off.		Refer to About the Power Off Function on BATTERY INSTALLATION (Page 3).

*The body fat percentage is low while the visceral fat level is high sometimes. On the contrary, the body fat percentage is high while the visceral fat level is low.

*The visceral fat level is the standard to the last. Consult a doctor for medical diagnosis.

<Skeletal Muscle Percentage>

It is the proportion of the weight of skeletal muscle to the body weight. Skeletal muscle is the muscle that can be trained (increased) through sports.

Skeletal Muscle Percentage		Classification
Male	Female	
5.0 to 32.8%	5.0 to 25.8%	- (Low)
32.9 to 35.7%	25.9 to 27.9%	0 (Normal)
35.8 to 37.3%	28.0 to 29.0%	+ (High)
37.4 to 60.0%	29.1 to 60.0%	++ (Very High)

*Based on our data

<Body Age>

It is the age of the body calculated in accordance with resting metabolism. A comprehensive classification is made in accordance with the comparison between body age and actual age.

12. SPECIFICATIONS

Product Name	Body Composition Monitor	
Model	HBF-224 (HBF-224-APDB)	
Display*	Body Weight:	2 to 100 kg with an increment of 0.1 kg
	Weight Gap:	100 to 135 kg with an increment of 0.2 kg
	BMI:	-99.9 to 99.9kg
	Body Fat percentage:	2.5 to 90.0 with an increment of 0.1
	Body fat percentage classification:	5.0 to 50.0% with an increment of 0.1% - (Low) / 0 (Normal) / + (High) / ++ (Very High) 4 levels
Set Items	Resting Metabolism:	385 to 3999 kcal with an increment of 1 kcal
	Skeletal Muscle percentage:	5.0 to 60.0% with an increment of 0.1%
	Skeletal muscle percentage classification:	- (Low) / 0 (Normal) / + (High) / ++ (Very High) 4 levels
	Visceral Fat Level:	1 to 30 level with an increment of 1 level
	Visceral fat level classification:	0 (Normal) / + (High) / ++ (Very High) 3 levels
Weight Accuracy	Body Age:	18 to 80 years old with an increment of 1 year
	Memory:	Last measurement results
	Gravity correction:	Select “2” as the area code
	Date:	January 1, 2016 to December 31, 2040
	Time:	0:00 to 23:59 24-hour notation
Power Supply	Personal data information:	The following information can be stored for up to 4 people.
	Date of birth:	January 1, 1900 to December 31, 2040
Battery Life	Gender:	Male/female
	Height:	100.0 to 199.5 cm with an increment of 0.5 cm
Operating Temperature/Humidity	Remark:	You will need to set up these information each time you take a measurement as “GUEST”.
	Storage Temperature/Humidity/Air Pressure	
Weight	Weight Accuracy	Above 2.0 kg to 40.0 kg: ±400 g Above 40.1 kg to 135.0 kg: ±1%
	External Dimensions	Approximately 285 (W) × 28 (H) × 280 (D) mm
Package Contents	Body Composition Monitor, trial battery (4 AAA manganese batteries) and instruction manual	

NOTE: Subject to technical modification without prior notice.

*Below 5 years old: Body weight, Weight Gap and BMI can be measured.
*Below 17 years old: Visceral fat level and body age cannot be measured.
*Above 81 years old: Body composition is for reference.

13. TECHNICAL DATA

Important information regarding Electro Magnetic Compatibility (EMC)

With the increased number of electronic devices such as PC's and mobile (cellular) telephones, medical devices in use may be susceptible to electromagnetic interference from other devices. Electromagnetic interference may result in incorrect operation of the may result in incorrect operation of the medical device and create a potentially unsafe situation.

Medical devices should also not interfere with other devices. In order to regulate the requirements for EMC (Electro Magnetic Compatibility) with the aim to prevent unsafe product situations, the EN60601-1-2:2007 standard has been implemented. This standard defines the levels of immunity to electromagnetic interferences as well as maximum levels of electro magnetic emissions for medical devices.

This medical device manufactured by OMRON Healthcare conforms to this EN60601-1-2:2007 standard for both immunity and emissions. Nevertheless, special precautions need to be observed:

• Do not use mobile (cellular) telephones and other devices, which generate strong electrical or electromagnetic fields, near the medical device. This may result in incorrect operation of the unit and create a potentially unsafe situation. Recommendation is to keep a minimum distance of 7 m. Verify correct operation of the device in case the distance is shorter.

Further documentation in accordance with EN60601-1-2:2007 is available at OMRON HEALTHCARE EUROPE at the address mentioned in this instruction manual.

Documentation is also available at www.omron-healthcare.com.

OMRON HEALTHCARE Co., Ltd.
53, Kunisubo, Terado-cho, Mako, KYOTO, 617-0002 JAPAN
Asia Pacific HQ
OMRON HEALTHCARE SINGAPORE PTE LTD.
438A Alexandra Road, #05-05/08, Alexandra Technopark, Singapore 119967
www.omronhealthcare-ap.com