Instruction Manual
BODY COMPOSITION ANALYZER
MC-980MA-N plus ⫿III⫿

<Usage Conditions>
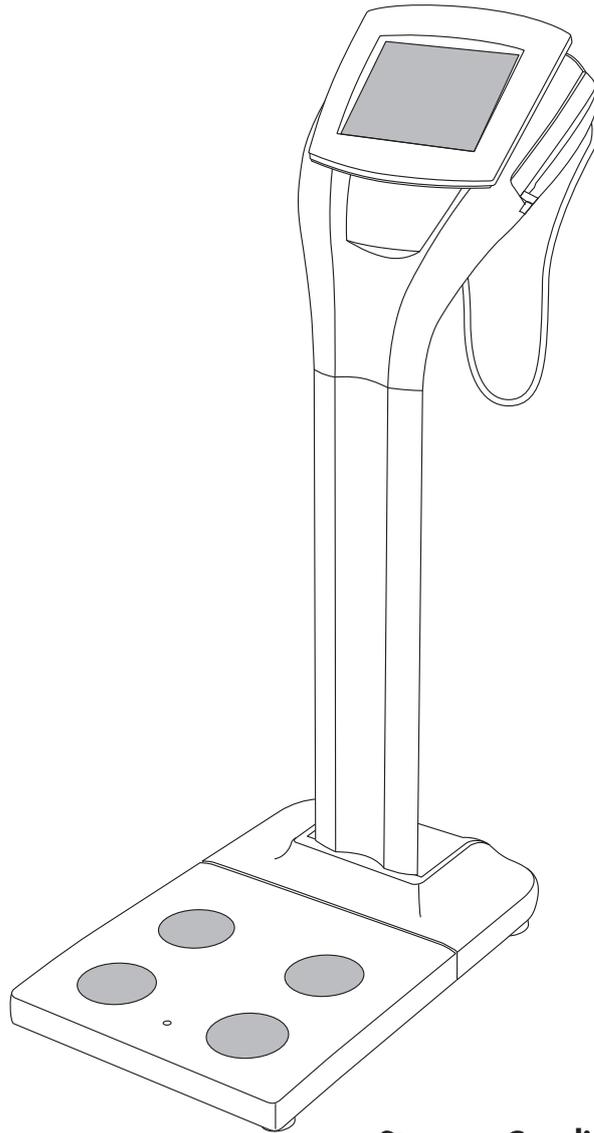
Temperature Range	: **5 to 35°C**
Relative Humidity Range	: **30 to 80%**
	(non-condensing)
Max Altitude	: **2,000m ASL**
Atmospheric Pressure Range	: **86 to 106kPa**

<Storage Conditions>

Temperature Range	: **-10 to 50°C**
Relative Humidity Range	: **10 to 90%**
	(non-condensing)
Atmospheric Pressure Range :	**70 to 106kPa**

To avoid malfunctions, avoid storing the equipment in a place with direct sunlight, significant temperature changes, a risk of dampness, a large amount of dust or a risk of vibration or impact, or in the vicinity of flames.

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

Intended Use

TANITA Body Composition Analyzers have been clinically proven to be accurate, reliable and provide highly repeatable results. Our Analyzers are used worldwide by health, research and medical professionals primarily in the following fields:
- medical screening and health assessments of adults and children
- monitoring the progress of weight loss during medical treatment relating to lifestyle diseases such as diabetes, hyperlipidemia, bariatric surgery, hypertension and fatty liver disease.
- monitoring increases of muscle mass, reduction of body fat and hydration levels as part of a fitness or training program
- assessing the true effectiveness of nutrition and physical activity programs where body mass index cannot identify key changes in body composition
- collating subject data for large cohort research studies

Efficacy

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

Contents

Before Use

How to Use

Other Information

For Your Safety

Below are precautionary measures to be taken to avoid injury to the users of this device and others, and to prevent damage to property. Please familiarize yourself with this information to ensure the safe operation of this equipment.

⚠ Warning	Failure to follow instructions highlighted with this mark could result in death or severe injury.
⚠ Caution	Failure to follow instructions highlighted with this mark could result in injury or damage to property.
🚫 Prohibited	This mark indicates actions that are prohibited.
❗ Required	This mark indicates instructions that must always be followed.

⚠ Warning

| 🚫 Prohibited	**This device must not be used on subjects with pacemakers or other mechanical implants.** This device passes a weak electrical current through the body which could interfere with and cause the malfunction of electrical medical implants, with serious consequences.	
	Do not handle the plug with wet hands. This may result in electric shock, fire, or current leakage.	
	Keep this equipment away from flammable gas and oxygen-rich environments.	
	Do not modify this equipment. There is a risk of electrocution or injury, and precise analysis cannot be guaranteed.	
	Do not use multiple adapters. This may result in fire.	
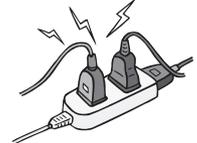
❗ Required	**Use only a correctly wired outlet.** Only genuine cables and equipment can be used.

⚠Caution

Prohibited	**Do not allow the equipment to get wet.**
	Avoid using on subjects with allergies to metals. Allergic reactions may be caused by the stainless steel used in the electrodes of this device.
	Do not jump on the equipment.
	Do not lean on the equipment.
	Do not use this equipment near other products that emit electromagnetic waves.
	Do not insert fingers into any of the gaps or holes.
	Do not apply force to the display. The screen may break and cause injury.
	Do not place items sensitive to magnetic forces near the equipment. The magnet of the impedance meter may corrupt data on devices such as USB memory sticks if these are placed near the equipment.
	Assist persons with disabilities. Another person should assist persons with disabilities who may not be able to take a measurement alone.
Required	**Clean the scale platform with appropriate disinfectant after each use.**
	Stand clear of the subject during measurement to ensure accuracy.
	Continually monitor both the subject and the equipment for anomalies. If an anomaly in the subject or equipment is discovered, take appropriate action, such as stopping the equipment, while ensuring the safety of the subject.
	Use the included AC cord.
	Do not lean against the equipment.
	Unplug the AC cord from the equipment when moving it.
	Tighten the adjustable feet when moving the equipment.
	Interpretation of analysis results (e.g. evaluation of measurements and formulation of exercise programs based on results) must be performed by a professional. Weight loss measures and exercise based on self-analysis could be harmful to your health. Always follow the advice of a qualified professional.
	This equipment is designated a Class B IT device (mainly for systems intended to be used in indoor environments) and is CE (EMC) certified, but it may affect devices that are sensitive to electromagnetic waves. If connecting a computer or peripheral devices to this equipment, please use a device complying with IEC60601-1 (EN60601-1). Power must be supplied from a medical isolation transformer for IEC60950 (EN60950) devices. Keep a distance of 1.5m between units during operation. Failure to do so may cause electric shock to subjects or malfunction.

For Your Safety (continued)

For Accurate Measurements

Prohibited

Avoid measuring after strenuous exercise.
This may cause inaccurate measurements. Please take measurements after sufficient rest.

Avoid measuring after over-eating or over-drinking, or when severely dehydrated.
This may cause inaccurate measurements. For greater accuracy, avoid using directly after waking up. Use at the same time of day each time, at least three hours after the last meal.

Ensure arms are not touching sides and inner thighs are not touching each other during measurement. If necessary, place a dry towel between arm and side and/or between thighs.

Do not take measurements while using transmitting devices such as mobile phones, as these may affect readings.

Required

Use the equipment under the same conditions and in the same position as much as possible for accurate tracking of changes.
Readings are affected by the level of hydration and position of the body. Please use at the same time of day each time, under the same conditions and in the same body position.

Avoid measuring in multiple locations with greatly differing temperatures.
This may cause inaccurate measurements. Allow the equipment to stand for at least 2 hours before using if it is moved to a new location with a temperature difference of 20°C/36°F or more.

Make sure the soles of the feet are free of excess dirt, as this may block the mild electric current.

Always take measurements with both arms straight down to prevent measurement errors such as underestimation of body fat.

Feet should be bare and placed correctly on the electrode platform. Arms should be straight down during measurement.

Use in a stable location.
Errors in measurements may occur if the device is used in an unstable location.

Regular Maintenance

⊘ **Required**	**TANITA recommends that each facility conduct periodic checks of each unit.**
	
	1. Check the following at least daily:
	  • Check that the unit is on a stable and level surface, e.g. on firm flooring, not on a thick carpet
	  • Date and time settings
	2. Visually inspect the following at least weekly:
	  • Inspect the display for any damage or contamination
	  • Inspect all cables, cords, and connector ends for damage or contamination
	  • Inspect all safety-related labeling for legibility
	  • Inspect all accessories (sensors, electrodes, etc.) for wear or damage
	3. Visually inspect the following at least monthly:
	  • Mounting screws on stand

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

Checking the Delivered Parts

Platform and Display Unit

☑ Instruction Manual (this manual)
☐ Technical Notes
☐ Quick Start Guide

(A) ☐ Platform
(B) ☐ Cover (Large)
(C) ☐ Cover (Small)
(D) ☐ Display Unit

(E) ☐ Screws (6 pcs)
(F) ☐ Communication Cable
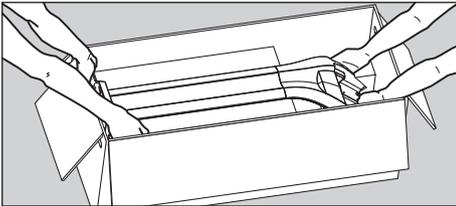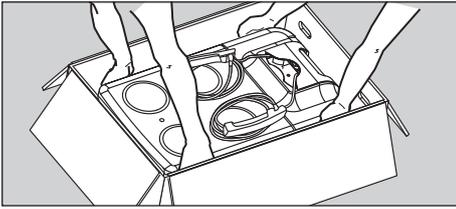(G) ☐ Power supply Cord
(H) ☐ AC Cord

(I) ☐ Screwdriver

Column

(J) ☐ Clamps (2pcs)
(K) ☐ Column Body
(L) ☐ Cover for Slit
(M) ☐ Display Cover

*Clamp (J) and display cover (M) are already installed to column body (K).

*Contact us if you do not have all of the components listed above. (See back cover.)

Assembling the Main Unit

1 **Ensure the top of the box is facing up and unpack the unit.**
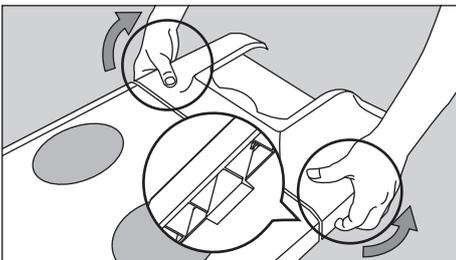
| ⚠ Warning |
| --- |
| Two persons are needed to open the box and unpack the unit. This is a heavy appliance, and can cause injury if dropped. |
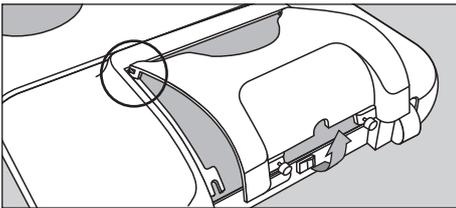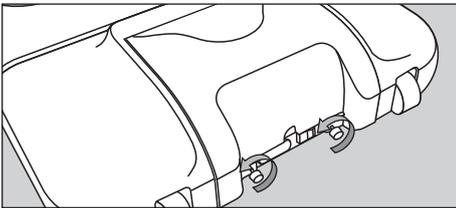
2 **Remove the covers (large and small) from the platform.**

Release the fastening screws on the cover (small).

Pull up the cover and release the hook that fits the slit in the cover (large).
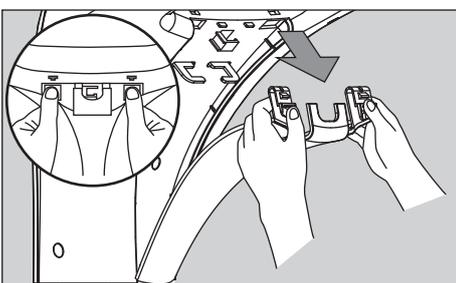
Pull the two tabs at the right end and the left end of the cover (large) toward the outside and remove the cover.
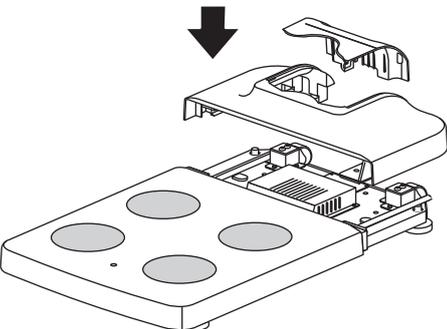
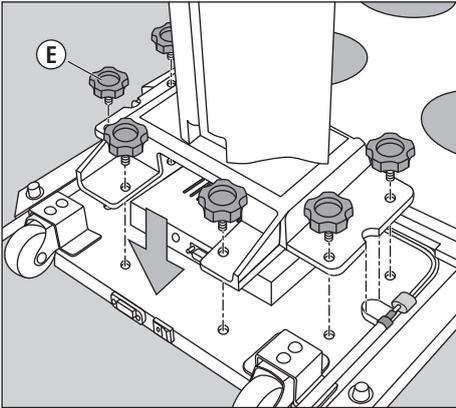**3** **Remove the display cover from the column.**

Press the two tabs at each side of the display cover to detach it.
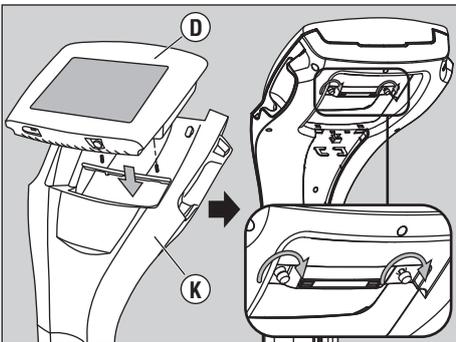
Before Use

4 Fix the column to the platform.

Use the screws (6 pcs) to fix the column securely to the platform.
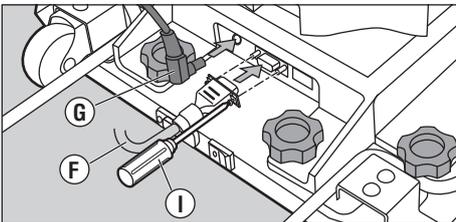
> ### ⚠Warning
>
> Firmly support the column while fixing and screwing it into place. Tighten the screws and check that they are all are firmly secured.

5 Installing the display unit.

Install the display unit to the top of the column body and fix it into place with the screws (2 pcs).

6 Connect the communication cable (F) and the power supply cord (G).

Insert the plug for the power supply cord into the power connector on the platform. Use the provided screwdriver (I) to fix the communication connector firmly into place.

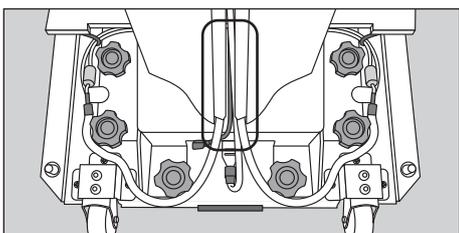Insert the communication cable and the power supply cord into the column slit.
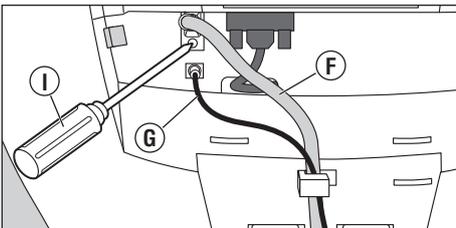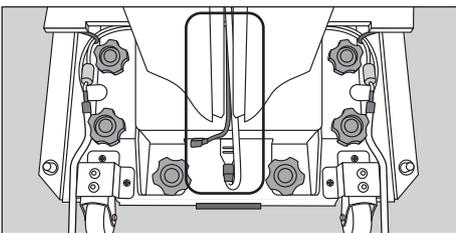
Fix these two cables into place with the hook at the top of the column. Insert the plugs for the power supply cord and the communication cable to the respective connector on the display unit. Use the provided screwdriver (I) to fix the communication connector firmly into place.
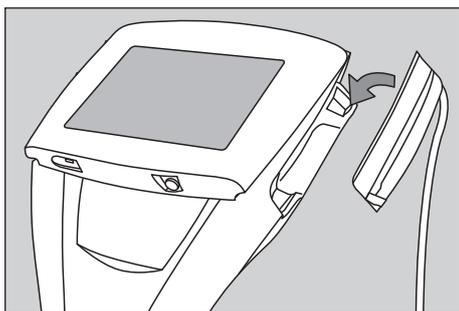
7 Insert and connect the left and right grips.

Insert the left and right grips into the respective slits at the top of both sides of the column.

Insert the cables from both grips into the slit on the column.
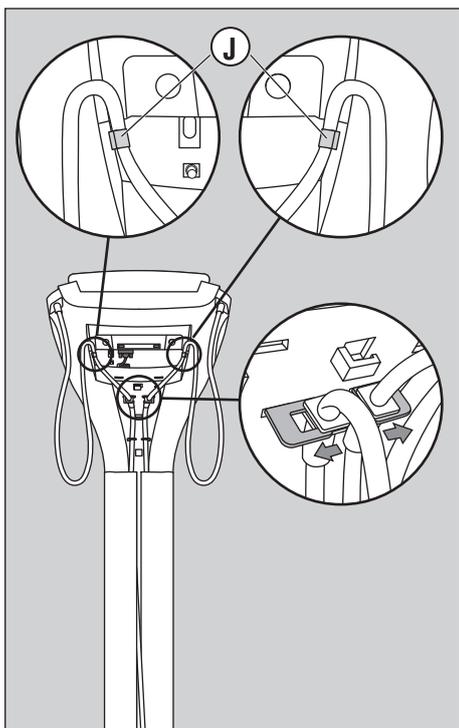
Fix the cables from both grips to the column using clamp Ⓙ as shown in the figure on the left.
*This figure does not show the power supply cord and communication cable.

8 Insert the display cover.

Insert the bottom of the display cover to the column and fix into place by it inserting both of the top tabs into the column.

Before Use
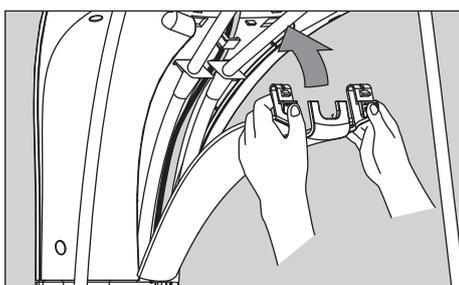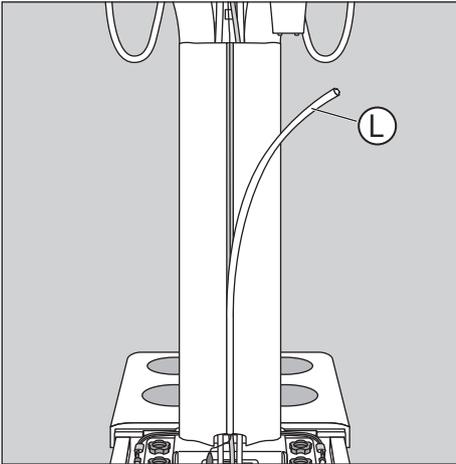
9 **Cover the slit.**
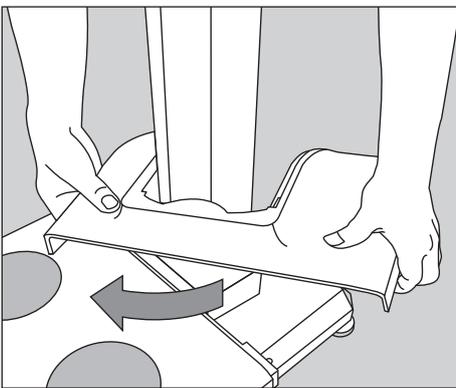
10 **Fix the pole cover (large) into place.**

Insert the cover (large) from the column side.
Then, the cover so it faces right.
*Forcing the cover may damage it.
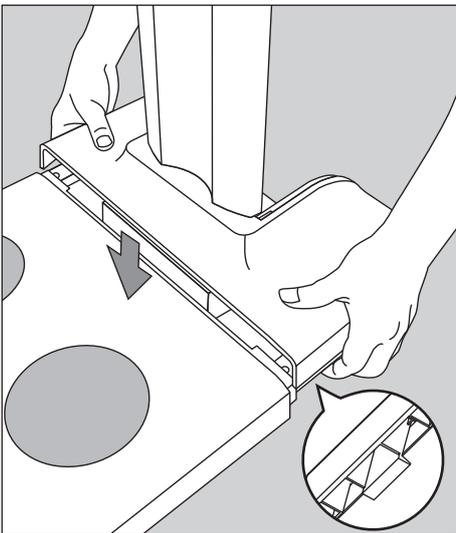
Fit into place and lock the cover to the platform.

⚠ Warning

Do not insert your fingers into any gaps while assembling.
Doing so could cause your fingers to become caught or injured.
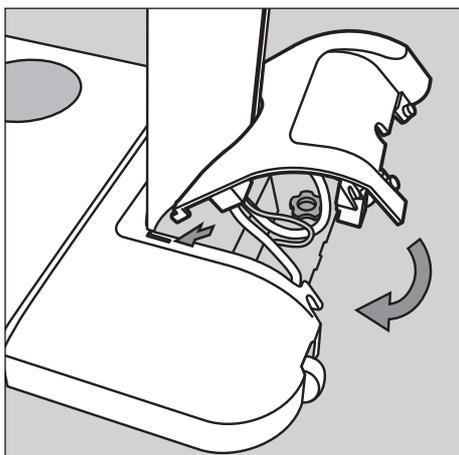
11 Fix the cover (small) into place.

Insert the cover (small) into the slit in the cover (large).
Use the screws (2 pcs) to fix the cover into place.
*The screws are already attached to the cover (small).
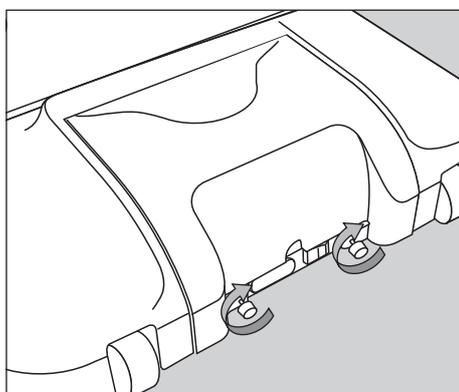
You have now fully assembled the device.

Part Names & Connection Procedure

en

Before Use

Accessories

☑ Instruction Manual (this manual)
☐ Technical Notes
☐ Quick Start Guide
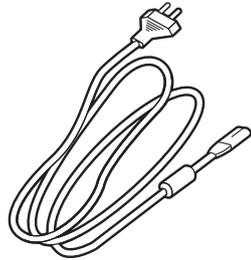
☐ Power Supply Cord   ☐ AC Cord
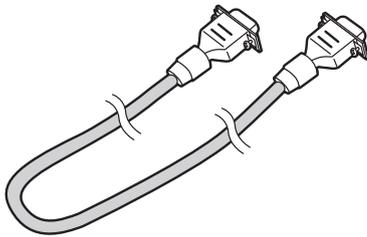
☐ Communication Cable
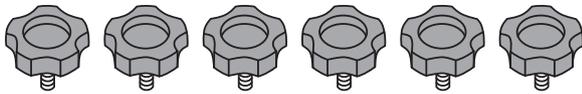
☐ Screws (6 pcs)

☐ Screwdriver

Electrodes (4)

Display Unit

Column

Platform

Electrodes (4)
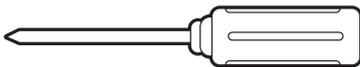
Level Gauge
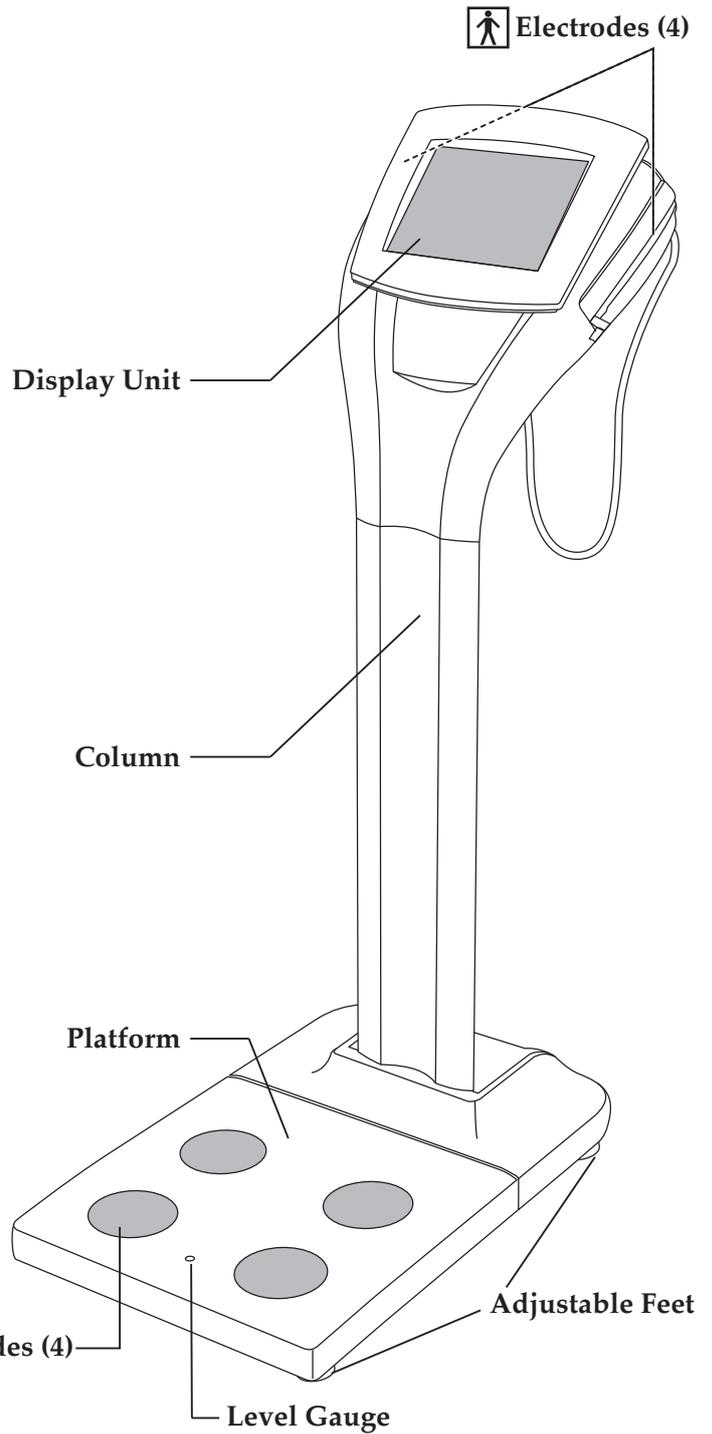
Adjustable Feet

Checking that the equipment is level

* For accurate measurements, place the machine as level as possible.
* Rotate the adjustable feet (4 positions for adjustment) until the bubbles in the level gauge are in the center.

Black ring

✓   ✗

Air bubble
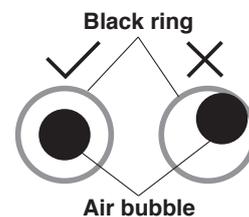
(The level gauge as viewed from above)

Plug Connections on the Display Unit

USB B   LAN   USB A(2)

RS-232C

DC Power
Connector

Display Unit Power Button   USB A
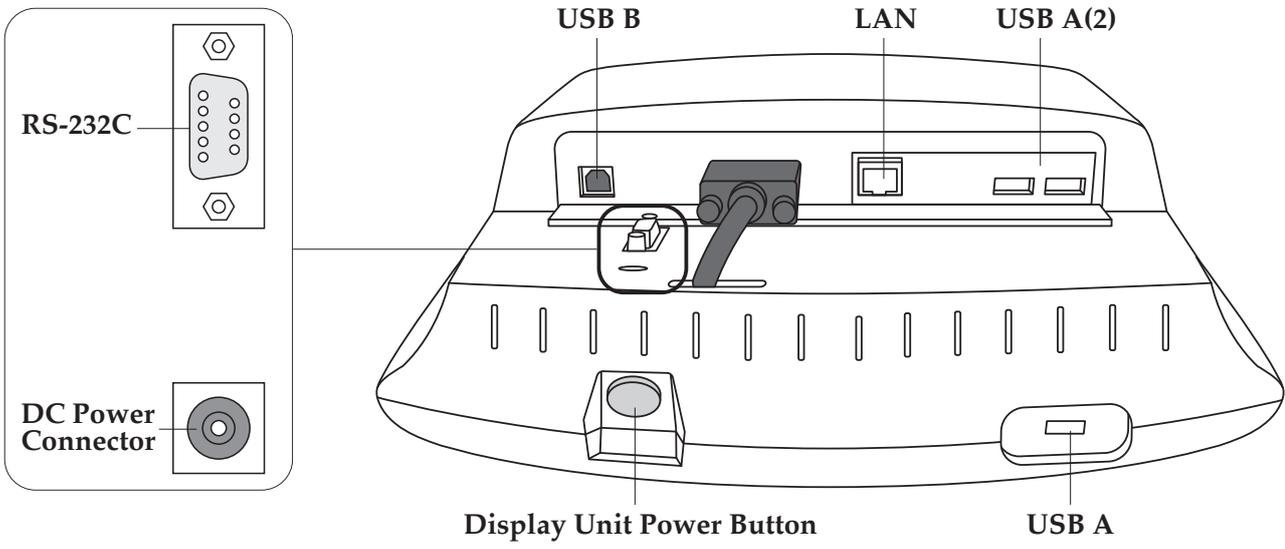
Plug Connections on the Platform

DC Power Connector

RS-232C

AC Socket   Power Switch

OFF   ON

Casters (2)
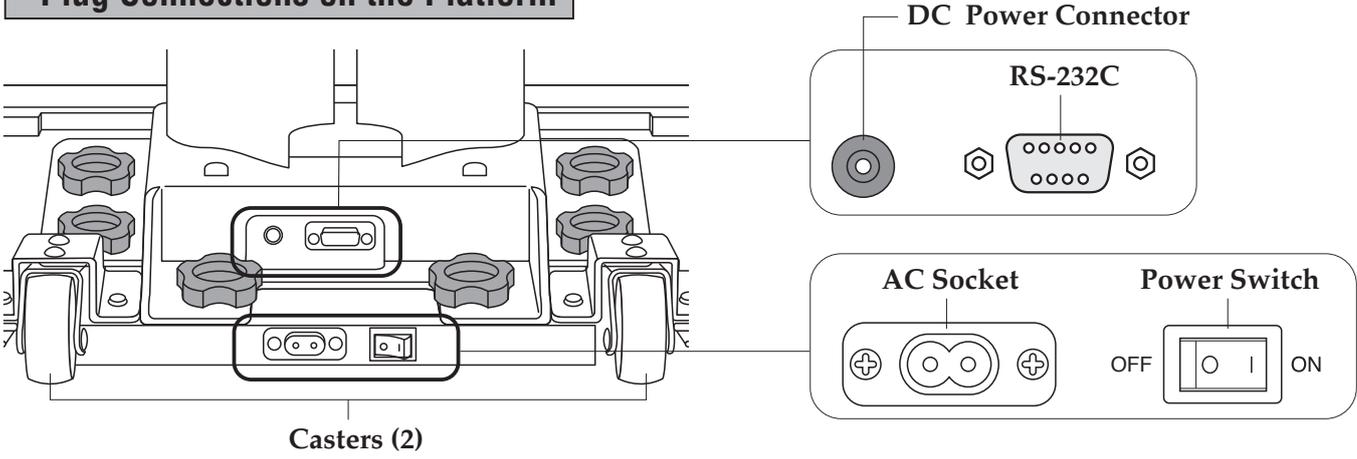
Symbols and their Meanings

Symbol	Meaning	Symbol	Meaning	Symbol	Meaning
⏻	Display unit on.	∼	Alternating current	▣	Class II equipment
(crossed-out bin)	WEEE- Waste Electrical and Electronic Equipment Directives	🏭	Manufacturer	⊝↔	Input, output
⚠	Caution! Refer to the attached notes.	(person in box)	Type BF applied part - Grips and platform	(house)	For indoor use only
⊝—⦿—⊕	Polarity of the DC power connector	(network)	Computer network	CE 0123	Conformity with Medical Device Directive 93/42/EEC
⎓	Direct current	|O|O|	Serial interface	(open book)	See the instructions
SN	Serial number	|	ON (power)	○	OFF (power)
⚡	Warning: Electrictiy Caution! Risk of electric shock.	⊘	General prohibition sign	❗	General mandatory action sign
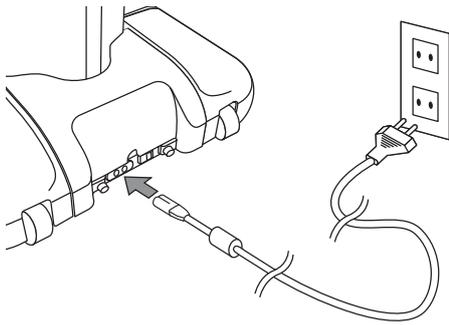
1 Connect the AC cord to the platform and plug it in to power outlet.
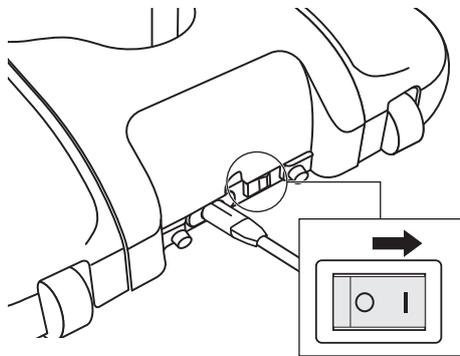
2 Turn on the power of the platform.
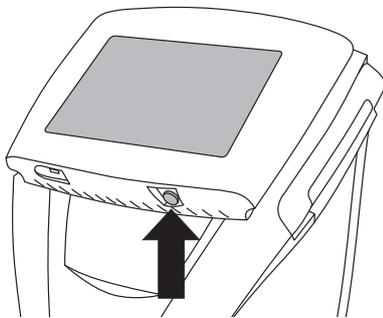
Then turn on the power of the Display unit.

*Be sure to turn on the power of the platform first.

(Initial screen)

Main Menu   01/01/2016

● Single Measurement

Body Composition   Weight Only   English

                                        Deutsch

● Member   Español

Registered User   Türkçe

New User Registration   Français

Setup

3 The initial screen is displayed.

Various settings (☞P.20)
Database management settings (☞ P.29)
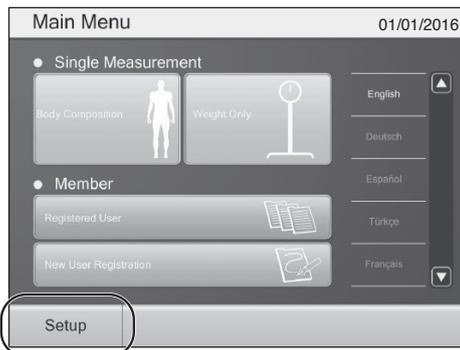
1 Select "Setup" and then select "Shutdown".
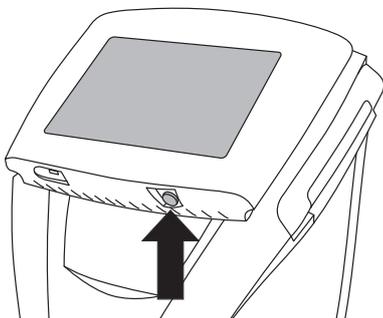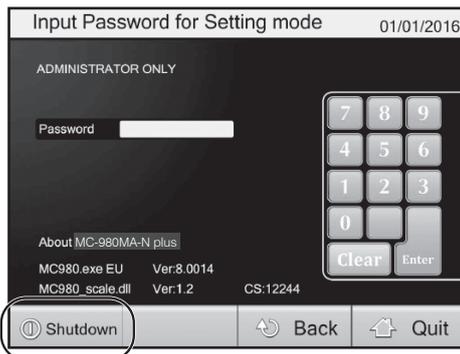
or press the power button on the Display unit to turn off the power.
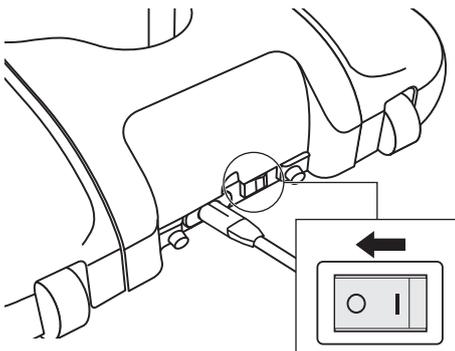
2 Turn off the power of the platform.

Power Supply (Emergency Shutdown)
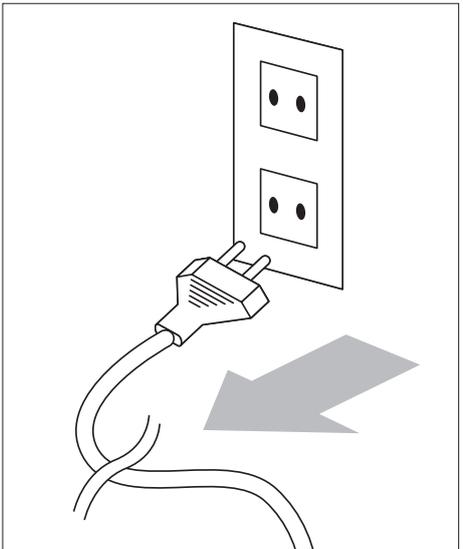
The power can be turned off immediately in an emergency by removing the plug from the power outlet. Make sure that there are no obstructions around the power outlet when using this equipment.

Note

Do not turn off the power by removing the plug from the power outlet except in an emergency.

Setup Flowchart

Select "Setup"

Main Menu   01/01/2016

- Single Measurement

  Body Composition   Weight Only   English
                                          Deutsch
- Member   Español
  Registered User   Türkçe
  New User Registration   Français

  Setup

Input Password

Initial password "9999"
Input the password and select "Enter".

Input Password for Setting mode   01/01/2016

ADMINISTRATOR ONLY

Password   [   ]   7 8 9
                              4 5 6
                              1 2 3
About MC-980MA-N plus   0
MC980.exe EU   Ver:8.0014   Clear Enter
MC980_scale.dll Ver:1.2   CS:12244

Shutdown   Back   Quit

Select Settings Menu

Start up MC-980MA-N plus   01/01/2016

      Various Setting
      Database Management
      Change Password

      Windows Mode

Shutdown   Quit

Various Settings

Various Setting   24/09/2010

      Date and Time
      Printer
      PC Connection
      External Device
      Measurement Mode
      Controller

            Back

Date and Time	Page 21
Printer	Page 22
PC Connection	Page 24
External Device	Page 25
Measurement Mode	Page 26
Controller	Page 28

Database Management

Database Management   24/09/2010

      Call up Member Data
      Add, Remove or Change
      Output Measurement Result
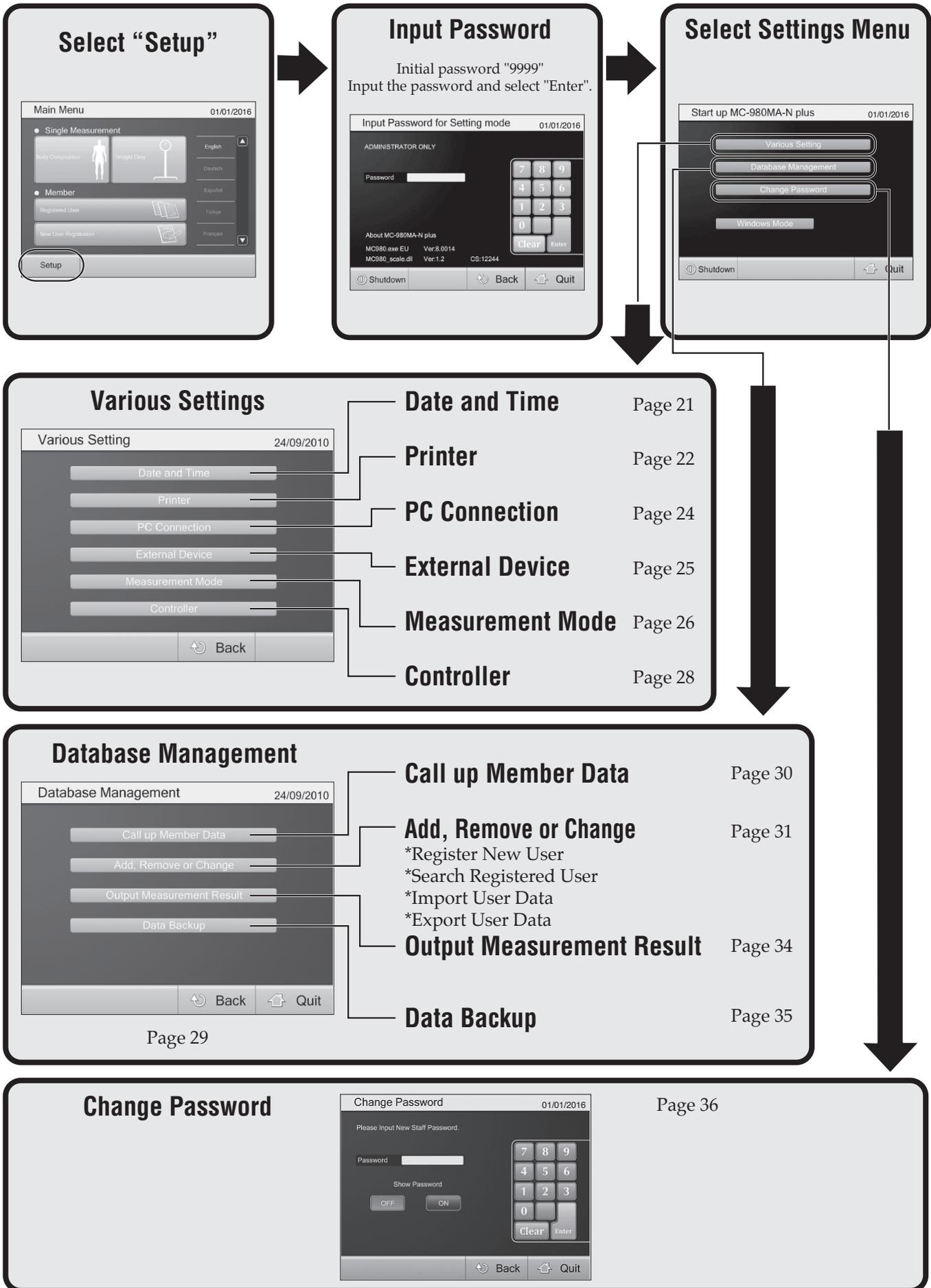   Data Backup

            Back   Quit

Page 29

Call up Member Data	Page 30
Add, Remove or Change	Page 31
*Register New User	
*Search Registered User	
*Import User Data	
*Export User Data	
Output Measurement Result	Page 34
Data Backup	Page 35

Change Password

Change Password   01/01/2016   Page 36

Please Input New Staff Password.

Password [   ]   7 8 9
                              4 5 6
    Show Password   1 2 3
    OFF   ON   0
                            Clear Enter

            Back   Quit

Setting Up the Device

How to Set Up

```
Start up MC-980MA-N plus          01/01/2016

        Various Setting

        Database Management

        Change Password


        Windows Mode


  ⏻ Shutdown                        ⏏ Quit
```

Select "Various Setting".

Select the setting option you wish to change.

External Device

(☞ P.25)
Select this option to connect external devices.

Measurement Mode

(☞ P.26)
Select this option to configure measurement options.

Controller

(☞ P.28)
Select this option to adjust brightness and other functions.

```
Various Setting               01/01/2016

        Date and Time

        Printer

        PC Connection

        External Device

        Measurement Mode

        Controller


            ↩ Back
```

Date and Time

(☞ P.21)
Select this option to set date and time to be printed on reports and to be recorded into the database.
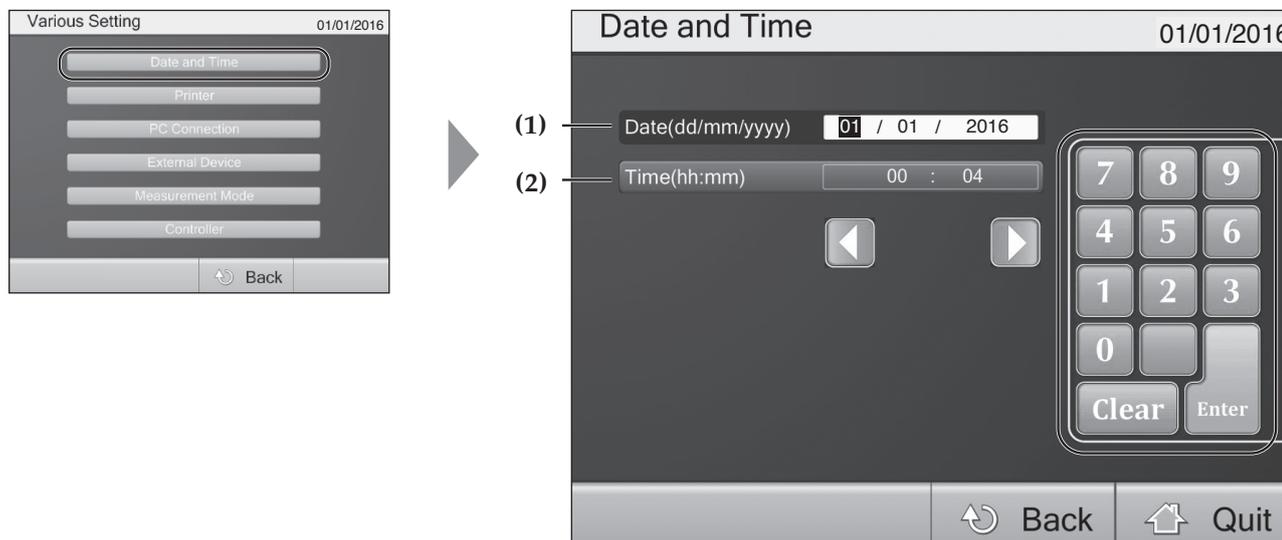
Printer

(☞ P.22)
Select this option to configure an external printer.

PC Connection

(☞ P.24)
Select this option to configure communication parameters.

Note

When you are finished with the settings, select "Back" on the "Various Setting" screen. This will take you back to the initial screen.

Set the Date and Time

Select any field to enter or edit information. The field to edit will be highlighted.

(1) Date:
For example, to enter January 21, 2016: 2 1 0 1 2 0 1 6

(2) Time:
For example, to enter 9:43 AM: 0 9 4 3

When you have completed all fields, select "OK" to save the settings and return to the "Various Setting" screen. (☞ P.20)

Note

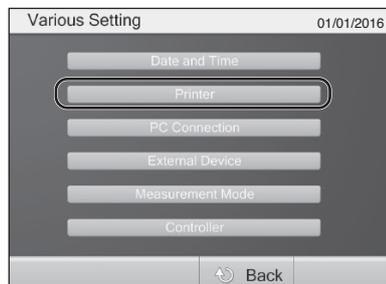Select "Back" to stop entering information. The date and time will not be changed and you will be taken back to the "Various Setting" screen.

Printer

(1) Set Printer Operation

Select if you will use a printer or not.
OFF: Select this if you will not use a printer.
ON: Select this if you will use a printer.

(2) Auto Print

Set how many sheets will be automatically printed at the end of each measurement. Even if this option is set to OFF, you can still print by selecting the print button at the bottom of the screen once the printing function is ON.
OFF: No automatic printing.
1: Prints 1 sheet at end of a measurement.
2: Prints 2 sheets at end of a measurement.

(3) Paper

You can select between pre-printed sheets and printing blank sheets (A4 size).
Pre-printed form: Dedicated sheets will be used for reports.
Plain paper: Full color printing to a regular A4 clear sheet.

(4) Adjust Printing Position

This option allows printing contents to be adjusted to fit the dedicated pre-printed sheet.
These parameters should be set before printing.

*Adjust the printing position by using the arrow keys under "Adjust Printing Position".
 You can adjust the printing position within -10.0 mm to +10.0 mm for each arrow direction by 0.1 mm increments.

(5)Test Print

(1) Select "Test Print" to check the current printing position.
(2) The printing position can be adjusted by using the arrow keys under "Adjust Printing Position".

*You can adjust the printing position within -10.0 mm to +10.0 mm for each arrow direction by 0.1 mm increments.

(6) Information

You can set any text, such as a name (of a hospital, gym, etc.) to be printed on the measurement report.

Select "Information" to show the comment field. Write your comment and select "Enter".
The "Printer" screen will open. Select "OK". You will be taken back to the "Various Setting" screen. (☞ P.20)
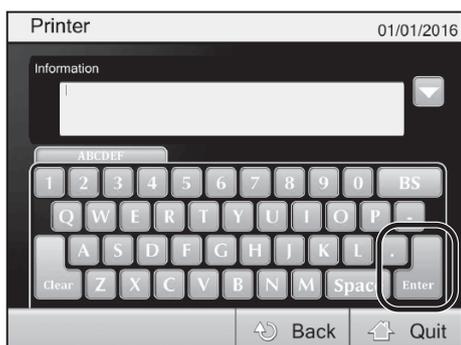
Note

Comments may have up to 4 lines of 30 characters.
Select "Enter" to confirm and display the text in the field above.

(7) Printer Selection

Select "Printer Selection". A list of connected printers will be displayed. The check mark indicates the current printer. Checking the box of another printer will change the selection to that printer.

The check mark will appear next to the selected printer.

After configuring all settings, select "OK" to save and return to the "Various Setting" screen. (☞ P.20)
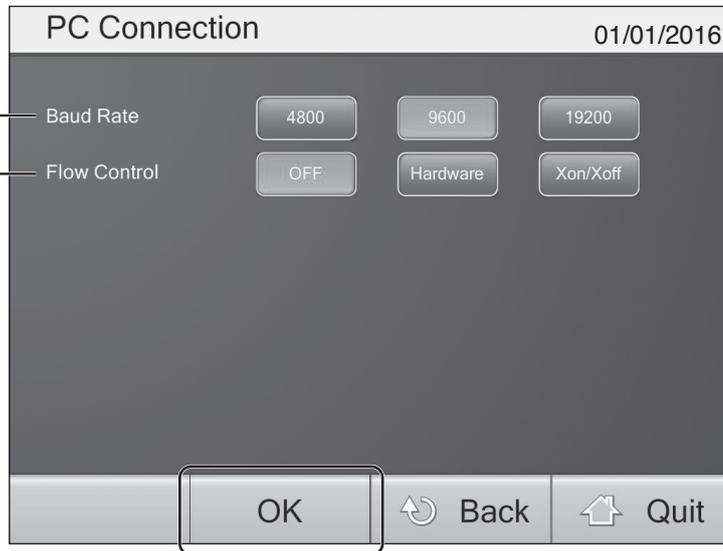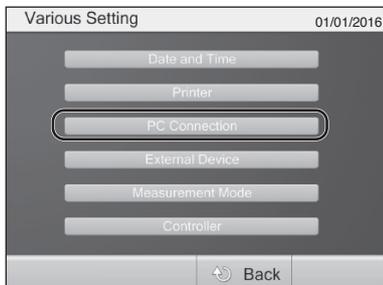
Note

Select "Back" to stop entering information. The date and time will not be changed and you will be taken back to the "Various Setting" screen.

Connecting to a PC

This screen allows you to configure communication between the device and a PC. Select "PC Connection".

(1) Baud Rate
　　Select from 4800, 9500, or 19200.

(2) Flow Control
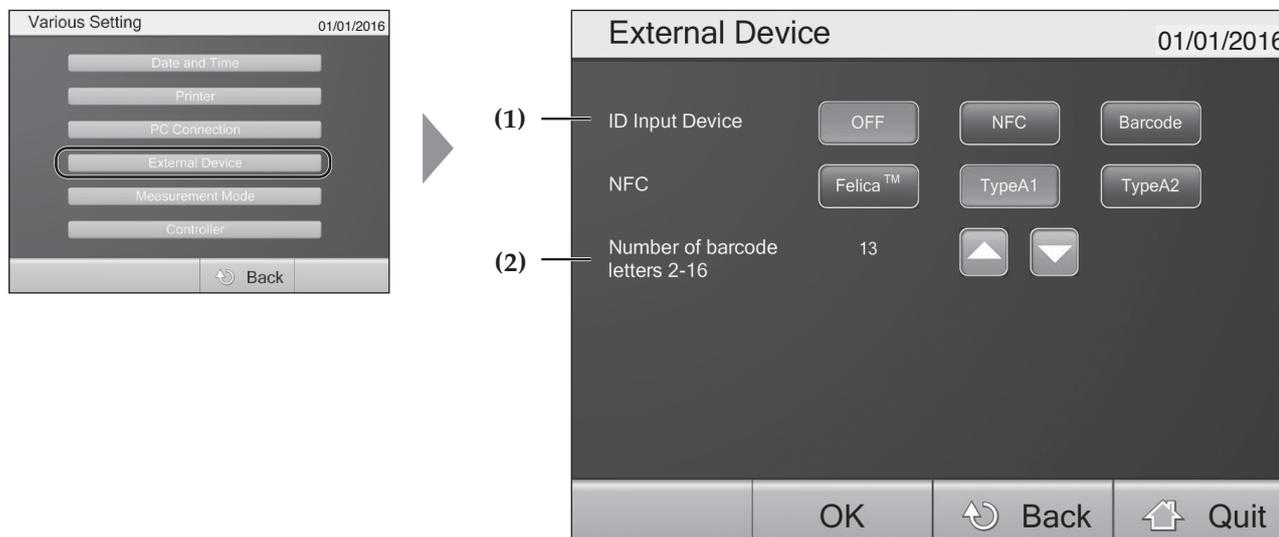　　Select from OFF, Hardware, or Xon/Xoff.

After configuring all settings, select "OK" to save and return to the "Various Setting" screen. (☞ P.20)

Note

Select "Back" to stop entering information. The date and time will not be changed and you will be taken back to the "Various Setting" screen.

en

External Devices

This screen allows you to configure some of the parameters for connecting external devices.

(1) ID Input Device
   OFF: Input ID from the touch screen.
   NFC: Select this to use an NFC reader. (Optional function)
   Barcode: Select this to use a barcode reader. (Optional function)

(2)Number of barcode letters 2-16
   Select the number of characters in the barcodes to be used.

After configuring all settings, select "OK" to save and return to the "Various Setting" screen. (☞ P.20)

Note

Select "Back" to stop entering information. The date and time will not be changed and you will be taken back to the "Various Setting" screen.
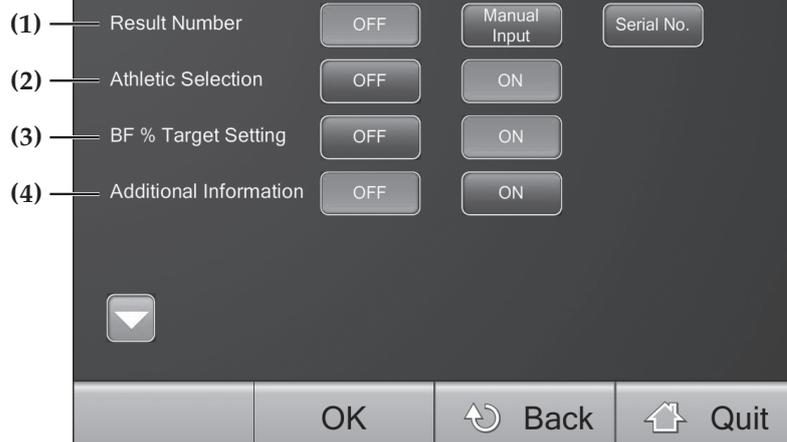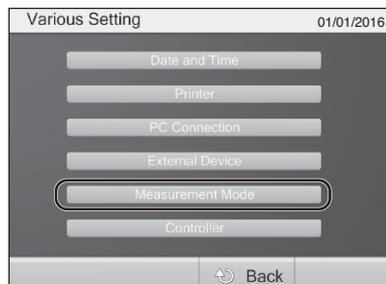
Before Use

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Measurement Mode

This screen allows you to set up a range of functions for measurement.

(1) Result Number

Select the result data numbering function.
OFF: If you do not want to use the user number feature.
Manual: Allows you to input user number manually for each measurement.
(No.): If you do not enter any number, the user number will automatically increase after each measurement.
Serial No. (Automatic): Starts at 1. The user number will automatically increase after each measurement.

(2) Athletic Selection

Turns Athletic Mode ON / OFF. (☞ P.37)
OFF: Disables Athletic Mode.
ON: Enables Athletic Mode.

(3) BF ％ Target Setting.

Turns target body fat percentage ON / OFF. (☞ P.37)
**OFF**: Disables target body fat settings.
ON: Enables target body fat settings. If you select "Skip" at the input screen, the target body fat will not be displayed.

(4) Additional Information

This displays additional details (muscle mass parameters ☞ P.51) in the "Measurement Result".
OFF: The "additional information" button is not displayed.
ON: The "additional information" button is displayed.

(5)

(6)
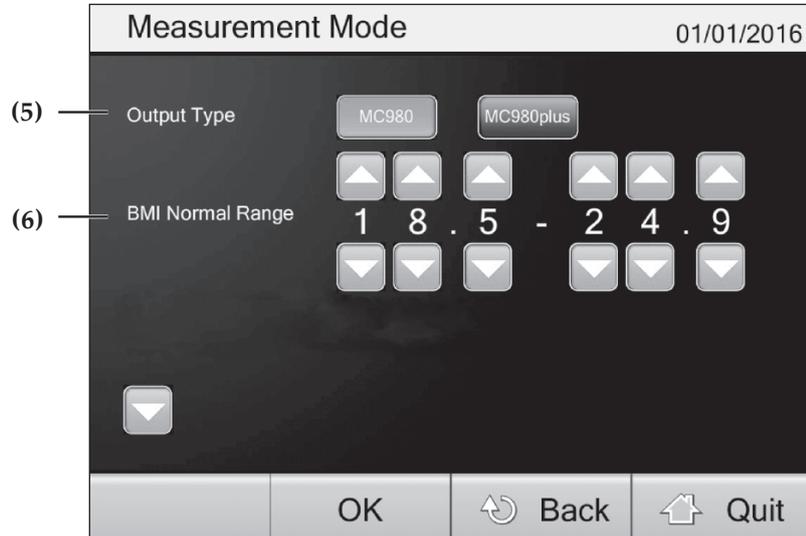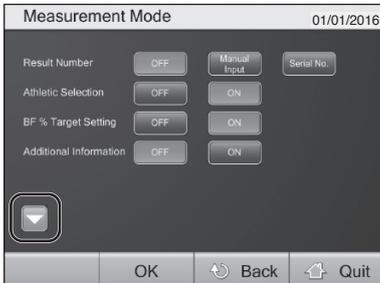
(5) Output Type

You can select whether or not to print the muscle mass parameters to the output data and hard copy.
MC980: Does not print or output.
MC980 Plus: Prints and outputs.

(6) BMI Normal Range

You can change reference the BMI range as needed. (Default range: 18.5 to 24.9)
Change numbers by pressing "▲"or" ▼".

After configuring all settings, select "OK" to save and return to the "Various Setting" screen. (☞ P.20)

Note

Select "Back" to stop entering information. The date and time will not be changed and you will be taken back to the "Various Setting" screen.
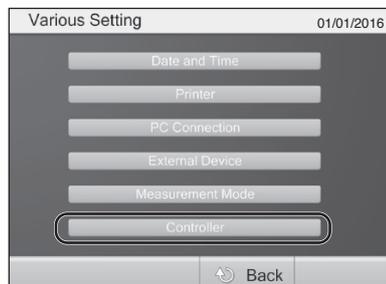
Setting Up the Device (continued)

Before Use

Controller

This screen allows you to adjust the display settings.

(1) Brightness
◀ : Makes the screen darker.
▶ : Makes the screen brighter.

(2) Beep
OFF: Does not beep on touch.
ON: Beeps on touch.

(3) Vibration mode
OFF: Does not vibrate on touch.
ON: Vibrates on touch.

After configuring all settings, select "OK" to save and return to the "Various Setting" screen. (☞ P.20)

> **Note**
> Select "Back" to stop entering information. The date and time will not be changed and you will be taken back to the "Various Setting" screen.

Language

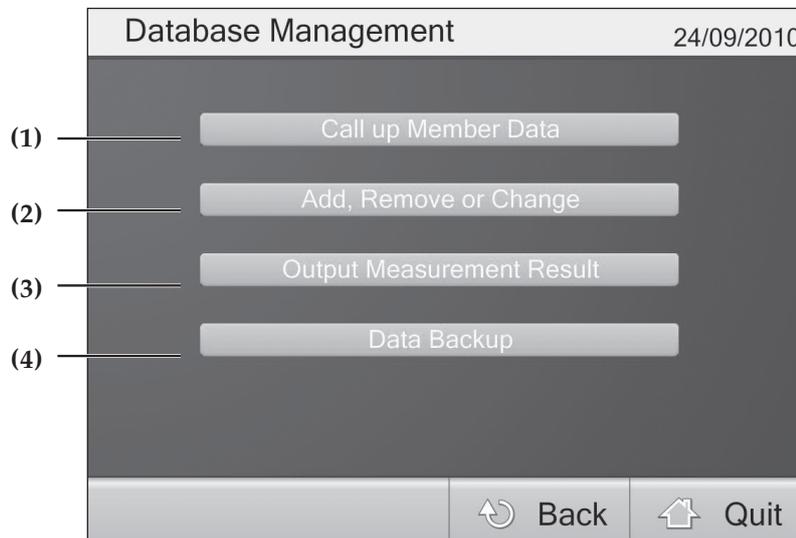**You can select from multiple languages.**

The language is selected on the "Main Menu" screen.
The display will switch to the selected language.

> **Note**
> If you have selected plain paper in the printer settings, then the printing language will also be changed.

Managing the Database

Database Management

(1) Call up Member Data
   Recalls individual data (☞ P.30).

(2) Add, Remove or Change
   You can add, edit, or delete a record (☞ P.31).
   You can also acquire data using data management application software.

(3) Output Measurement Result
   Output data stored internally in CSV format (☞ P.34).

(4) Data Backup
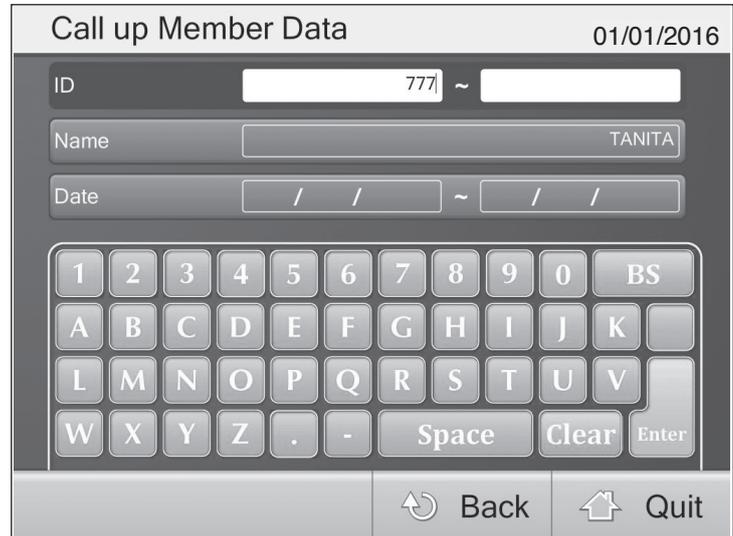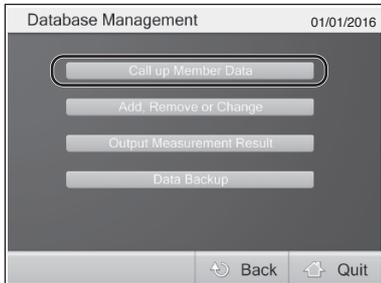   Makes a backup file at specified location (☞ P.35).

Note

When you are finished with the settings, select "Back".

Call up Member Data

You can recall individual measurement data by ID or name. This function is useful for managing health and giving workout guidance.

Recall stored measurement result data.
Input a user ID, name, or measurement date and select "Search".
*If you search without inputting any data, all of the stored measurement results will be displayed.
*If you enter multiple criteria, all data that meets the search conditions will be displayed.
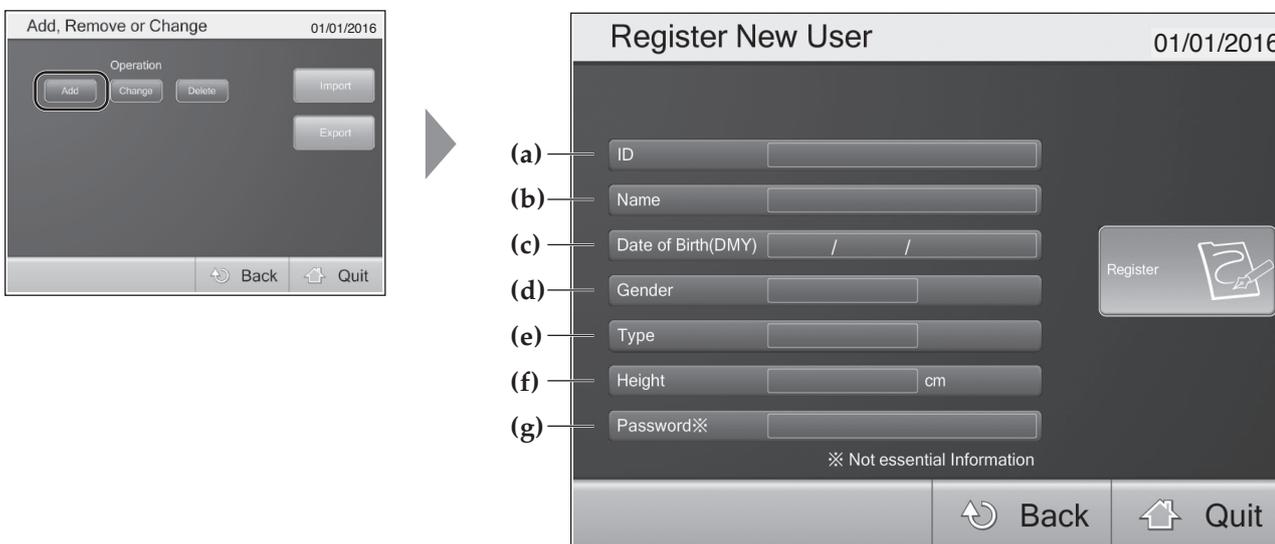Choose a data item and select "View".

Before Use

Add, Remove or Change

This screen contains all of the functions for managing individual data records.
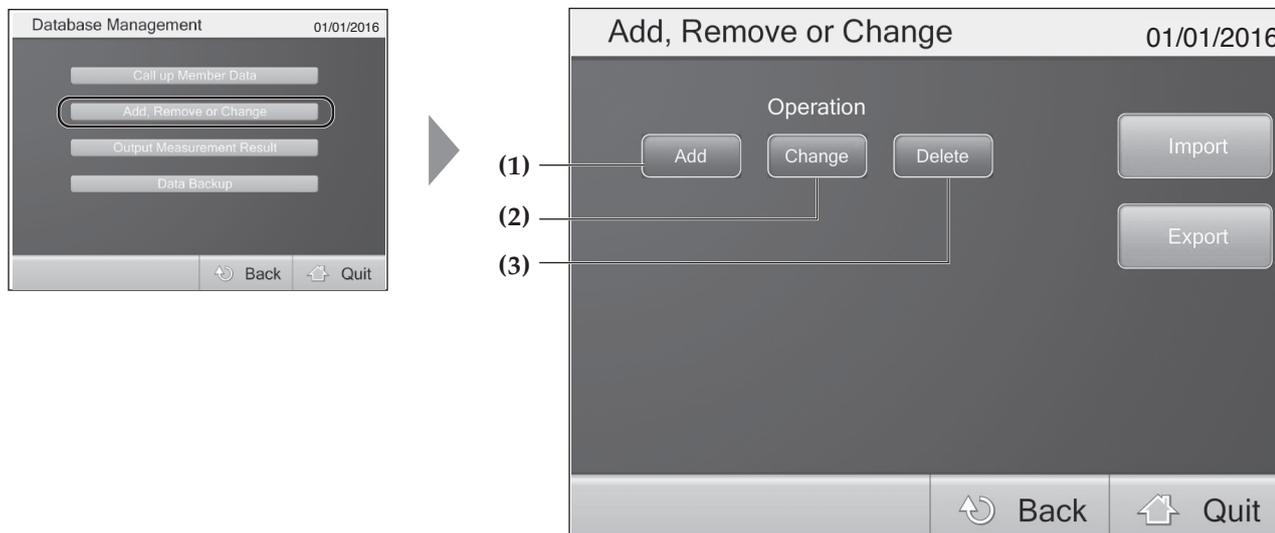
(1) **Add:** Registers new user data.
(2) **Change:** Changes registered user data. (☞ P.32)
(3) **Delete:** Deletes registered user data. (☞ P.33)

(1) Add

You can register a new user.
Input the user's ID, name, and all other personal information and press "Register".

(a) **ID:** Enter a maximum of 16 alphanumeric characters.

> **Note**
>
> Duplicate ID numbers are not accepted.

(b) **Name:** Enter a maximum of 16 alphanumeric characters.
(c) **Date of Birth:** Input the date of birth in
　　　　"day / month / year" format.
　　Example September 24th, 1973 ⇒ 24 / 09 / 1973

(d) **Gender:** Select the gender.

(e) **Type:** Select Standard Mode / Athletic Mode.
　　*Athletic Mode (☞ P.37)
(f) **Height:** Enter a height between 90.0 and 249.9cm.
(g) **Password:** Enter a number with a maximum of 10 digits.
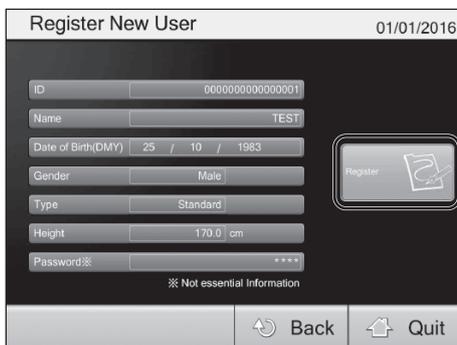　　*Password is optional.

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(2) Change

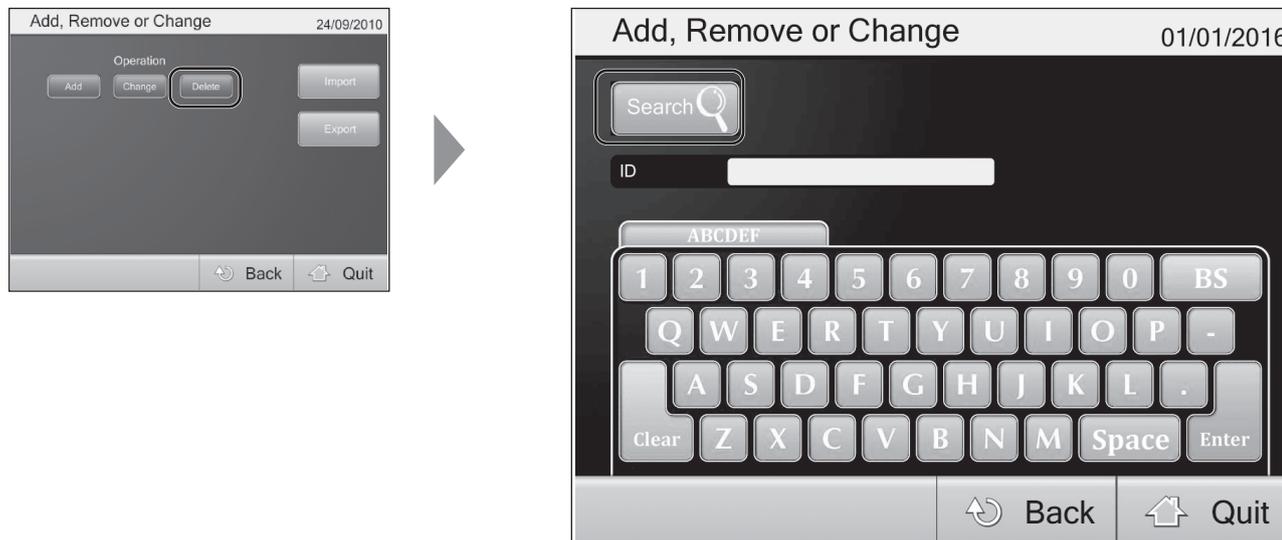**(1) Enter the ID of the desired record.**

After entering all digits of the ID, select "Enter" or "Search". The corresponding data will be displayed.

(2) Enter new data.

Select a field and change it (☞P.44).
When you have finished inputting the information, select "Enter" to update the field.

(3) Delete

(1) Enter ID of the entry you want to delete.

After entering all digits of the ID, select "Enter" or "Search". The corresponding data to be deleted will be displayed.
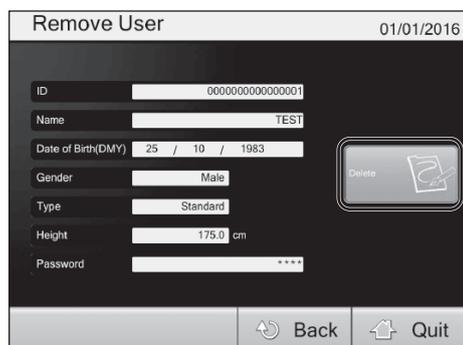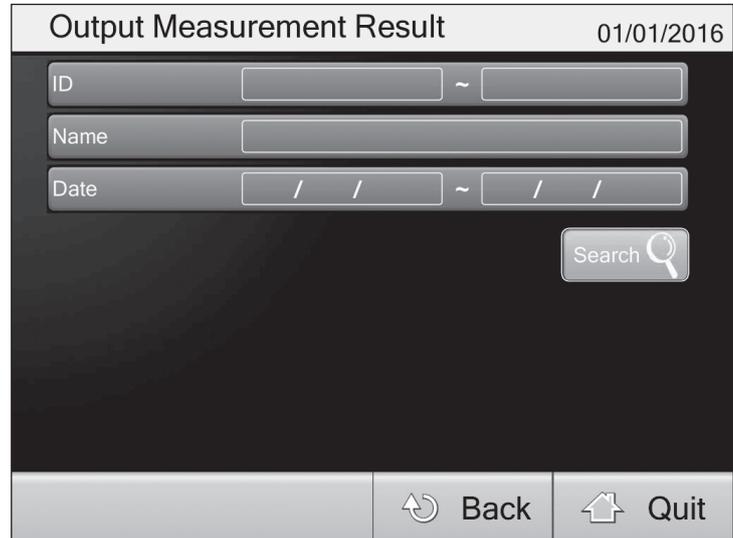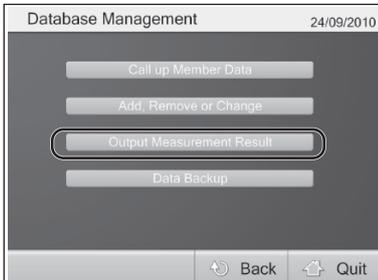

(2) Delete data.

Select "Delete" to have the data deleted. When you are finished deleting, select "Back".

en

Before Use

Output Measurement Result

(1) Set the data range

Set the range of data you want to output and select "Search". The search result will be displayed.

*The search result will not be available if there are over 100 matches. If this occurs, change the range and search again.

(2) Output data

Check the data and select "CSV Output".
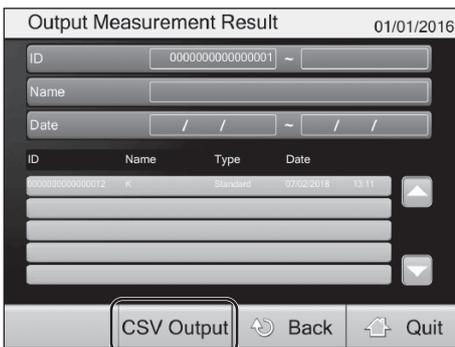
(3) Choose the destination folder and file name. Then select "Save".
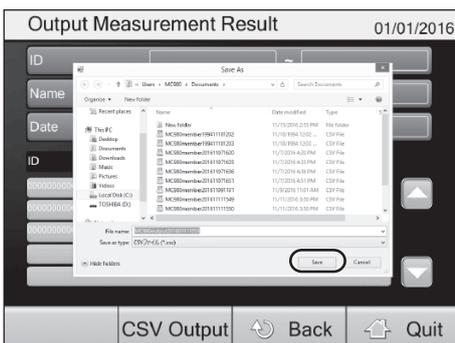
Data Backup

Select "Data Backup".

Choose a destination for the backup file and press "OK" .

Change Password

1 Select "Setup".

2 Input the password, then select "Enter".

*Initial password "9999"

3 Select "Change Password".

4 Enter the new password.

General Instructions for Measuring Body Composition

⚠ • Wait for at least two hours before taking measurements if the equipment has been transferred to a location where there is a temperature difference of ±20°C or more.
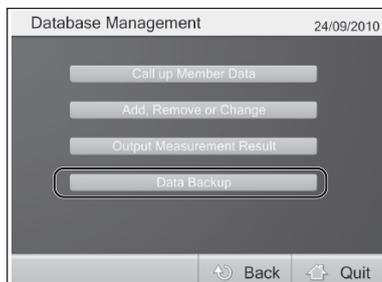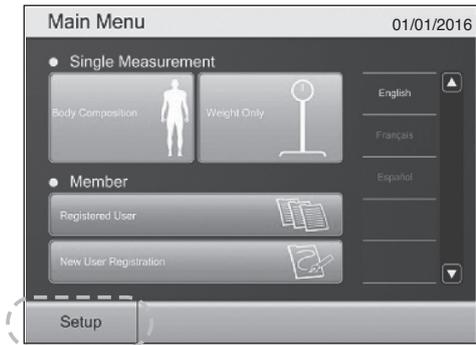
Athletic Mode

• **Recommended for those who are 18 years old or older and meet the following conditions.**
 - People who carry out 12 or more hours of cardio vascular exercise a week or exercise for 12 hours or more per week.
 - People who belong to a sports team or a sporting organization with the aim of participation in competitions, etc.
 - Professional athletes.

Target Body Fat

• **Please consult your doctor before starting a weight management program, and set the appropriate personal body fat percentage. TANITA cannot be responsible for setting the appropriate target body fat percentage for specific individuals.**

Important

• **Correct posture when measuring**
 - Stand on the electrodes with both feet parallel.
 - Stand with straight legs. Do not bend the knees.
• **The age range is from 5 to 99 years old.**
  Enter 99 for those who are 100 years old or older.

Note
• Inaccurate results may occur after excessive food/fluid intake, or after periods of intense exercise.
• If the clothes weight is input, the clothes weight is subtracted from the weight measurements.

Measurement Flow

Measure body weight.

Single measurement
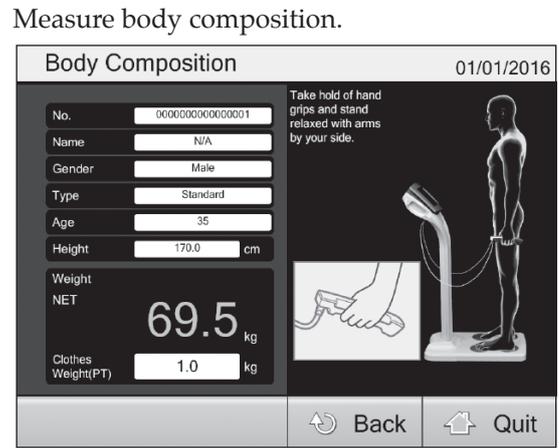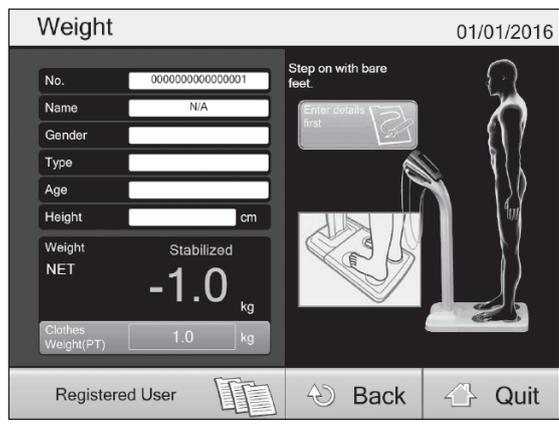
Initial screen

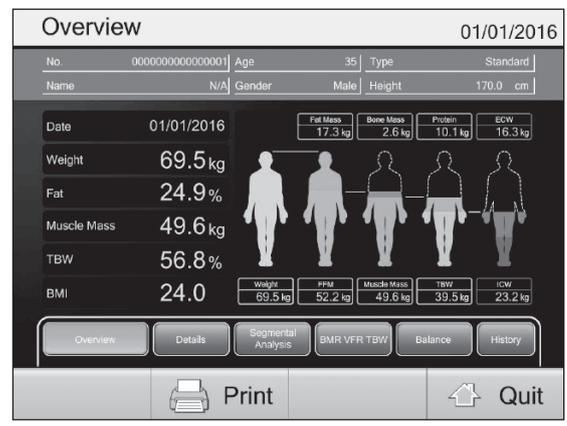**Member measurement**

Enter an ID.

Enter personal information.

Measure body composition.

Confirm the entered details and measure body weight.

The measurement results are displayed.

Measuring Body Composition

Single Measurement

1 **Select "Body Composition" on the initial screen.**

The body weight measurement screen will be displayed.

2 **Set the clothes weight.**

*You can measure even without setting the clothes weight.

(1) Select "Clothes weight (PT)".

Note

Press →0← if you get any result other than "0.0 kg" with an empty platform (zero reset).
*If you set the clothes weight, zero reset will become unavailable.

(2) Use the number keys or one of pre-set weight keys to input the clothes weight. If you used the number keys to input it, confirm by selecting "Enter" .

Note

You can set the clothes weight up to 10.0 kg in increments of 0.1 kg.

3 **Get on the platform to measure body weight.**

Displays your weight minus the clothes weight.
When the measurement result is heavier than 2.0 kg and becomes stable, the screen will automatically switch to "Enter user number".

Note

· Select "Data input" to enter the required fields before body weight measurement.
· You can hide body weight from the display.
· If you turn on "Clothes weight", the "Tare" sign will be displayed. The clothes weight settings can be changed by selecting "Clothes weight" and entering information into that screen.

Select Gender	01/01/2016
No.	0000000000000001
Name	N/A
Gender	
Type	
Age	
Height	cm
Weight NET	69.5 kg
Clothes Weight(PT)	1.0 kg

Female
Male

Back   Quit

4 Select gender.

Select "Female" or "Male". This will cause the "Select body type" screen to be displayed.

Select Body Type	01/01/2016
No.	0000000000000001
Name	N/A
Gender	Male
Type	
Age	
Height	cm
Weight NET	69.5 kg
Clothes Weight(PT)	1.0 kg

Standard
Athletic

Back   Quit

5 Select body type.

Select "Standard".
Otherwise the or "Athletic" screen will be displayed.

Note

Note on Athletic Mode (☞ P.37)
The "Select body type" feature is not available in the following cases:
・The user is younger than 18 years old.
・Athletic Mode is set to OFF (the body type will be Standard).
・Athletic Mode is set to AUTO (the body type will be automatically selected).

6 Enter age.

Use the number keys to enter the user's age.
Select "Enter". This will cause the screen to switch to "Enter height".

Note

· You can enter an age from 5 to 99.
· Users over 100 years old should enter 99.
· Users younger than 18 years will have the body type reset to Standard (except when AUTO has been selected).

7 Enter height.

Use the number keys to enter the user's height.
Select "Enter".
This will cause the screen to switch to "Set target body fat".

Note

You can enter a height from 90.0 to 249.9 cm.

8 Set target body fat.

Use the number keys to enter the user's target body fat.
Select "Enter".
This will cause the screen to display the accepted target value.
*For some settings this item will not be available.

Note

You can set the target body fat from 4 to 55%.

9 Confirm input.

If all settings and entered values are correct, press
"Start measurement" to measure body composition.
If you want to store all of the data as a user record select
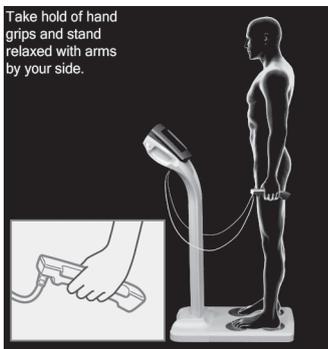"New User Registration" (☞ P.44).

Body Composition 01/01/2016

No.	0000000000000001
Name	N/A
Gender	Male
Type	Standard
Age	35
Height	170.0 cm

Take hold of hand grips and stand relaxed with arms by your side.

Weight
NET
69.5 kg
Clothes Weight(PT) 1.0 kg

Back   Quit
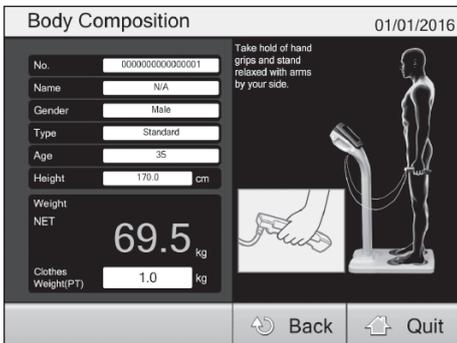
10 Start measurement.

Follow the instructions on the screen to measure body composition.

Note

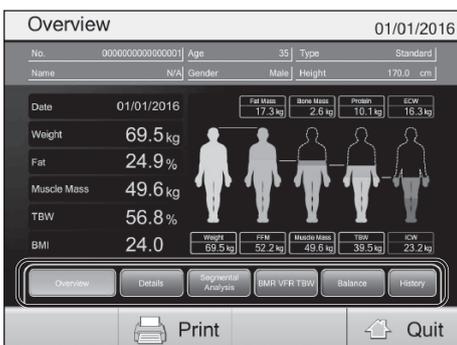If you entered the data previously, the impedance will be measured after body weight.

Take hold of hand grips and stand relaxed with arms by your side.

\<The correct position for measurement\>

Hold the grip handles gently and put your arms naturally by your sides.
Stand evenly on the electrodes under your toes and heels.

\<Child\>   \<Adult\>

Body Composition 01/01/2016

No.	0000000000000001
Name	N/A
Gender	Male
Type	Standard
Age	35
Height	170.0 cm

Measurement complete.

Return both grips.

Weight
NET
69.5 kg
Clothes Weight(PT) 1.0 kg

Back   Quit

11 End measurement.

Return the grip handles.

Overview 01/01/2016

No. 0000000000000001 Age 35 Type Standard
Name N/A Gender Male Height 170.0 cm

Date	01/01/2016	Fat Mass 17.3 kg	Bone Mass 2.6 kg	Protein 10.1 kg	ECW 16.3 kg	
Weight	69.5 kg					
Fat	24.9 %					
Muscle Mass	49.6 kg					
TBW	56.8 %					
BMI	24.0	Weight 69.5 kg	FFM 52.2 kg	Muscle Mass 49.6 kg	TBW 39.5 kg	ICW 23.2 kg

Overview | Details | Segmental Analysis | BMR VFR TBW | Balance | History

Print   Quit

12 The result will be displayed.

Note

・For some settings, the data will also be transferred automatically from the output port.
・Select the button at the bottom of the screen to show information on each of the items (☞ P.50).
・Select "Quit" then select "Yes" on the confirmation screen. You will be taken back to the "Weight" screen (☞ P.40).

Measuring Body Composition (continued)

Member's Measurement

You can store individual information to avoid re-entering the same data in subsequent measurements.
Just enter the ID to start measuring. You can create a new record for the past to observe your fitness progress or to measure the same users again.

1 Select "New User Registration".
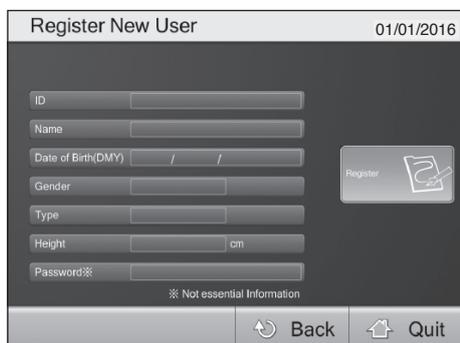
2 Input the user's ID, name, and other personal information and select "Register".

3 Enter the ID to be set as the user number.

Use the keyboard to enter the ID and press "Enter".

Note

You can enter ID with up to 16 characters.

4 Enter name.

Use the number keys to enter the user's name.
Select "Enter" to confirm input.

Note

You can enter name with up to 16 characters.

5 Date of birth.

Enter the date of birth in "day/month/year" format.
Press "Enter" after input to confirm.
  Example September 24th, 1973 ⇒ 24 / 09 / 1973

Note

· The oldest year of birth that can be registered is 1900.
· Users aged 100 or over are registered as 99 years old.

6 Select gender.

Choose gender by selecting one of the displayed gender
buttons ("Female" or "Male").

Measuring Body Composition (continued)

Member's Measurement (continued)

7 Select body type.

Select Standard Mode / Athletic Mode.
Press "Standard" or "Athletic" to select.

Note

Note on Athletic Mode (☞ P.37)
The "Select body type" feature is not available in the following cases:
・The user is younger than 18 years old.
・Athletic Mode is set to OFF (the body type will be Standard).
・Athletic Mode is set to AUTO (the body type will be automatically selected).

8 Enter height.

Use the number keys to enter the user's height.
Select "Enter" to confirm.

Note

You can enter a height from 90.0 to 249.9 cm.

9 Enter password. (Optional)

You can set a password to limit access to data.
Use the number keys to enter the password.

Note

You can use a number combination of up to 10 digits.

10 Confirm input.

If all settings and entered values are correct, then select "Register" to measure body composition.

Note

Incorrect or empty entries will cause the "Register" button to be grayed out.
Ensure that this button is active (green) and select it.

Now you created the record.

Member's Measurement/Rendering Individual Data (From the Second Time)
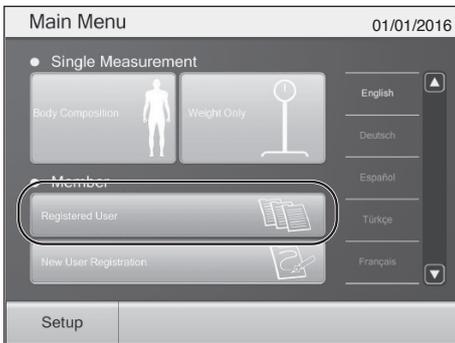
You can recall stored individual data to avoid re-entering data before another measurement.
This function also allows you to browse past measured results.

1 Select "Registered User".

2 Enter your user ID.

Enter the registered password.
Use the number keys to enter the password.

Note

This step is only necessary if you have registered a password.

3 Check the displayed information and press "START Measurement".

Step onto the analyzer with bare feet.

Note

You can skip impedance measurement if necessary.

Member's Measurement/Rendering Individual Data (From the Second Time) (continued)
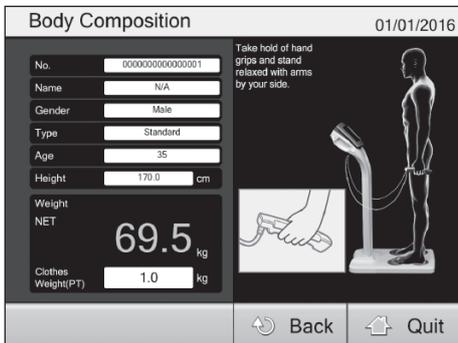
4 Start measurement.

Follow the instructions on screen to measure body composition.
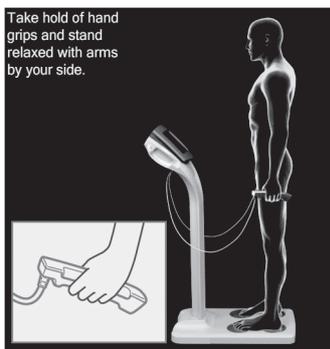
<The correct position for measurement>

Hold the grip handles gently and put your arms naturally by your sides.
Stand evenly on the electrodes under your toes and heels.

<Child>   <Adult>

Note

You can also recall data while in Single Measurement. Press "Recall data" before body weight measurement.

5 **End measurement.**

Return the grip handles.

6 **Displaying the results.**

Note

- For some settings, the data will also be transferred automatically from the output port.
- Select the button at the bottom of the screen to show information for each of the items (☞ P.50).
- Select "Quit" then select "Yes" on the confirmation screen.
  You will be taken back to the "Weight" screen (☞ P.47).
- The result will be stored automatically once the measurement is completed.

7 **Check details.**

Select the "Details" button to display the details.
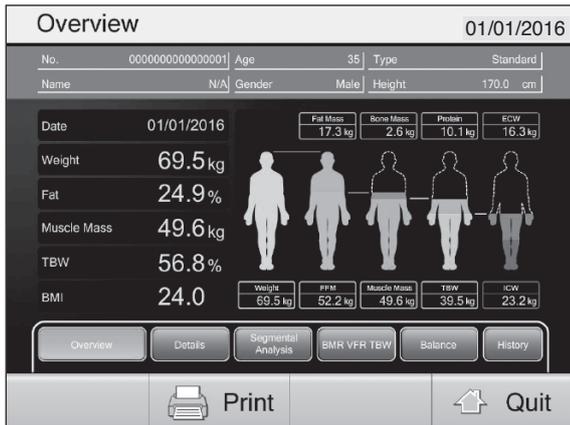
Overview

The components of body composition

Weight	Measured weight
Fat mass	Total weight of fat in the body
FFM	Fat Free Mass is comprised of muscle, bone, tissue, water, and anything else other than fat that counts towards body mass.
Bone mass *	Entire amount of bone mineral.
Muscle mass	Bone free lean tissue mass (LTM)
Protein	Amount of protein in muscles.
Total Body Water (TBW)	The amount of water retained in the body
Extracellular Water (ECW)*	Water outside the cells, mainly composed of interstitial fluid and blood plasma.
Intracellular Water (ICW)*	Water inside cells

* Estimated value for persons 18 - 99 years old

Details

Measurement results are compared with the following values

Desirable	The standard value is for the Standard mode. When Athletic Mode is used, the standard value is used for reference.
Target *	Predicted weight and fat mass are displayed according to the set target BF %
Previous **	Displays the difference with the previous result
Initial **	Displays the difference with the initial result

* Only available when the target BF % is set.
** Only available for "Registered User" measurements

How to Use
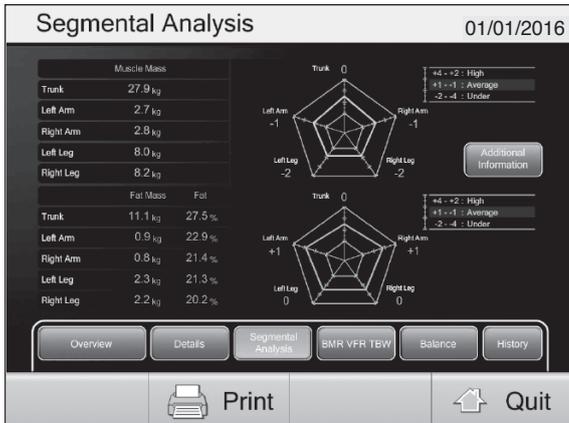
Segmental Analysis

Segmental measurement results are compared with the average value
* Only for persons 18 to 99 years old
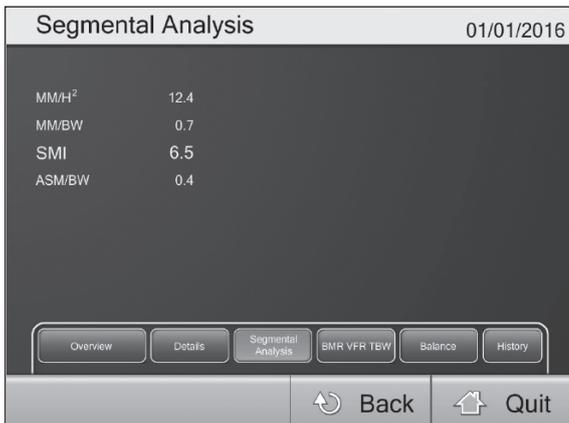
Additional Information

MM/H^2	Whole body muscle mass (kg)/Height (m)^2
MM/BW	Whole body muscle mass (kg)/Body Weight (kg)
SMI*	Total muscle mass value of right arm, left arm, right leg and left leg (kg)/Height (m)^2
ASM**/BW	Total muscle mass value of right arm, left arm, right leg and left leg (kg)/BodyWeight (kg)

*SMI : Skeletal Muscle Mass Index
**ASM : Appendicular Skeletal Muscle Mass
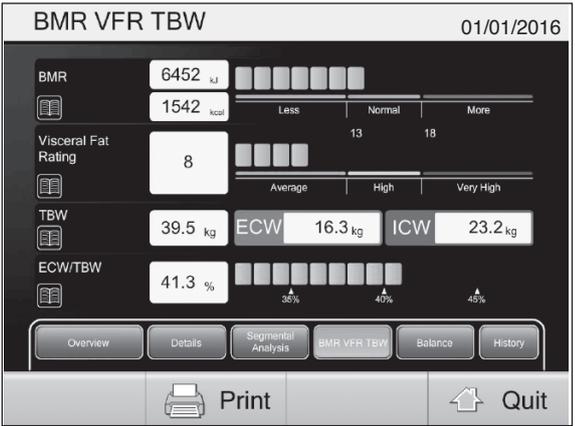
BMR / VFR / TBW

BMR	Basal Metabolic Rate (BMR) is the amount of energy the body consumes in a 24 hour period, when at total rest.
Visceral fat rating	Harmful fat that collects in the internal abdominal cavity, surrounding the vital organs.
TBW	Total Body Water (TBW) is the amount of water retained in the body
ECW / TBW	Percentage of extracellular water in relation to the total body water.
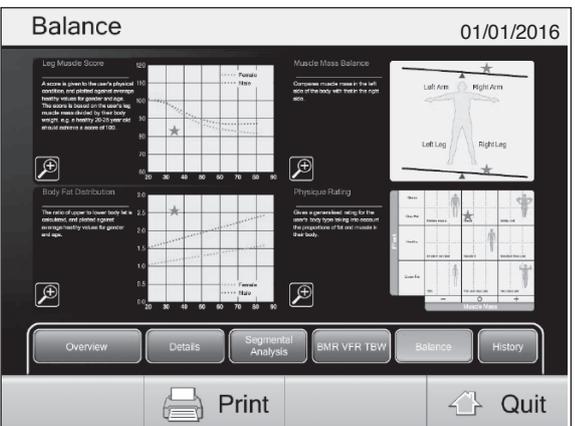
Balance
[Leg Muscle Score]

A score is given to the user's physical condition, and plotted against average healthy values for the user's gender and age. The score is based on the user's leg muscle mass divided by their body weight. For example, a healthy 20 to 25 year old should achieve a score of 100.
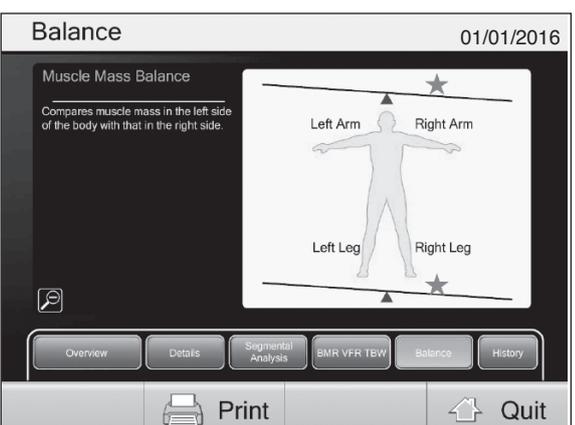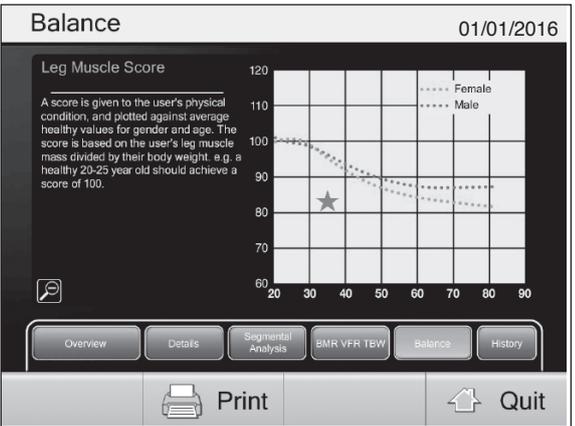
Balance
[Muscle Mass Balance]

Compares muscle mass on the left side of the body with that on the right side.
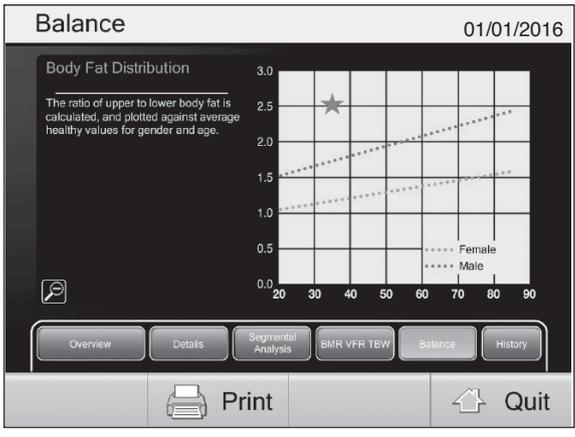
Balance
[Body Fat Distribution]

The ratio of upper to lower body fat is calculated and plotted against average healthy values for the user's gender and age.
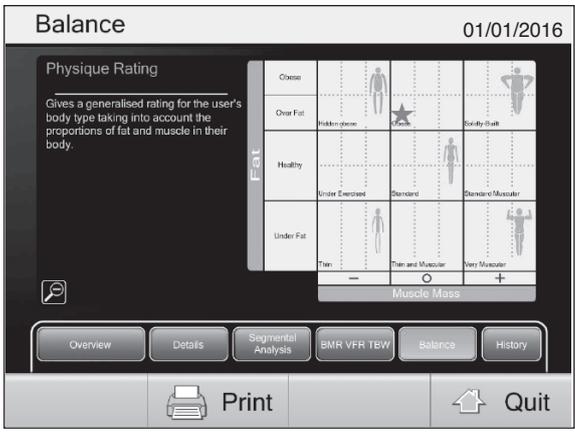
Balance
[Physique Rating]

Gives a rating for the user's body type taking into account the proportions of fat and muscle in their body.
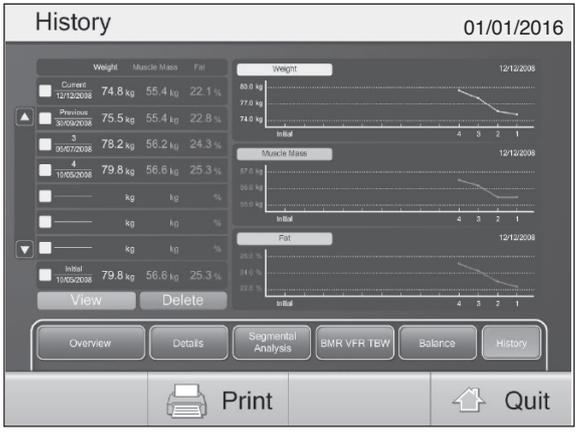
History

Displays the measurement result trends.

View	Displays the selected data.
Delete	Deletes the selected data.

* Only available for "Registered User" measurement

Measuring Body Weight Only

How to Use

1 Select "Weight Only" on the initial screen.

2 Enter the user number.
* You can take a measurement without entering your user number.

Select "Enter".
This will cause the "Weight Only" screen to be displayed. If this item is not displayed, it is because the user number input feature has been set to OFF.

Note

- You can use the number keys to enter up to 16 digits.
- The number entered will be added to the next user.
- You can also enter user number user by user.

3 Get on the platform.

The user's body weight will be shown.
The data will be transferred from an output port.

Note

- Press →0← if you get any result other than "0.0 kg" with an empty platform, to force the device to display "0.0 kg".
  *If you set the clothes weight, zero reset will become unavailable.
- To change the clothes weight, press "Clothes weight (PT)". (☞ P.40) The entered weight will be shown in a negative value. Select "Back" to be taken back to the previous screen.

Note

The print settings control the printer (☞ P.22).

Troubleshooting

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If you are experiencing problems, please check the following before asking for repairs.

Problem		Solution
Measuring	**Impedance measurement error**	•Hold the handgrips and electrodes firmly with fingers and palms. •Stand barefoot on the platform when measuring. •If the soles of the feet are dry, use a dropper to apply about 0.5 mL of water before measurement. •Reconfirm the input details.
	Zeroing error	•Turn off the power, remove everything from the platform, then turn on the power and try measuring again.
	Weight value does not level.	•Is the analyzer placed on a vibrating surface? •Is the measuring platform tilted? •Is something blocking the gaps in the measuring platform? •Remove any inserted objects.
Display	**Nothing is displayed even when the power is turned on.**	•Confirm that the power is connected correctly.
	Touch panel screen display is dark.	•Backlight failure. Contact the retailer where you purchased the analyzer.
	"------" is displayed.	•The weight to be measured exceeds the maximum capacity.

Other Information

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Specifications

Other Information

Model Number	MC-980MA-N plus
Accuracy Grade	MDD: CLASS IIa
	NAWI: CLASS III
Power Source	230V AC 50/60Hz
Electric Current Range	0.3A

Impedance Measurement	Measurement System	Multi- frequency 8 electrode
	Measurement Frequency	1kHz,5kHz,50kHz,250kHz,500kHz,1000kHz
	Measurement Current	90µA or less
	Electrode Materials	Feet: stainless steel/Handgrips: plated
	Measurement Part	Whole body/Right arm/Left arm/Right leg/Left leg/Trunk
	Measurement Range	75.0 to 1,500.0Ω (0.1Ω increments)
	Accuracy at First Calibration	± 2%

Weight Measurement	Measurement System	Strain gauge load cell
	Maximum Capacity	300kg (including preset tare value)
	Minimum Graduation	0.1kg
	Accuracy at First Calibration	± 0.2kg

Display	10.4" TFT color LCD touch panel
Interface	USB Type-A Port (USB host) x3
	USB Type-B Port (Device) x1
	LAN port x1
Product Weight	33kg

Product Size	Platform	Platform size: 450 x 490mm/Height: 65mm
	Product	Height: 1240mm

Input Items	Single Measurement	Clothes Weight	0.0 to 10.0kg (0.1kg increments)
		Serial No.	Maximum 16 digits
		Gender	Female/Male
		Body Type	Standard/Athletic*[1]
		Age	5 to 99
		Height	90.0 to 249.9cm (0.1cm increments)
		Target Body Fat %	4 to 55% (1% increments)
	Registered User	Clothes Weight	0.0 to 10.0kg (0.1kg increments)
		User ID	Maximum 16 alphanumeric characters
		Name	Maximum 16 alphanumeric characters
		Date of Birth	After 1900 (dd/mm/yyyy format)
		Gender	Female/Male
		Body Type	Standard/Athletic*[1]
		Height	90.0 to 249.9cm (0.1cm increments)
		Target Body Fat %	4 to 55% (1% increments)
		Password	Within 10 digits

Other Information

Model Number		MC-980MA-N plus	
	Serial Number	Maximum 16 alphanumeric characters	
	Name	Maximum 16 alphanumeric characters	
	Gender	Female/Male	
	Body Type	Standard/Athletic*[1]	
	Age	5 to 99	
	Height	90.0 to 249.9cm (0.1cm increments)	
	Clothes Weight	0.0 to 10.0kg (0.1kg increments)	
	Date and Time	(dd/mm/yyyy hh:mm format)	
	Whole Body Analysis — Weight	2.0 to 300.0kg (0.1kg increments)	5 to 99 years old
	Fat %	3.0 to 75.0% (0.1% increments)	
	Fat Mass	(0.1kg increments)	
	FFM	(0.1kg increments)	
	Muscle Mass	(0.1kg increments)	
	BMI	(0.1 increments)	
	Bone Mass	(0.1kg increments)	
	Muscle Score		18 to 99 years old
	Protein (estimated)	(0.1kg increments)	5 to 99 years old
	Metabolic Age	12 to 90 (1 increments)	18 to 99 years old
	Basal Metabolic Rate	(1kcal/1kJ increments)	5 to 99 years old
Output Items	BMR Graph		18 to 99 years old
	Visceral Fat Rating	1 to 59 (1 increments)	
	Visceral Fat Graph		
	TBW	(0.1kg increments)	5 to 99 years old
	TBW %	(0.1% increments)	
	ECW	(0.1kg increments)	18 to 99 years old
	ICW	(0.1kg increments)	
	ECW/TBW	(0.1% increments)	
	ECW/TBW Graph		
	Segmental Analysis — Muscle Mass	(0.1kg increments)	5 to 99 years old
	Muscle Mass Rating	-4 to +4 (1 increments)	18 to 99 years old
	Fat %	1.0 to 75.0% (0.1% increments)	5 to 99 years old
	Fat Mass	(0.1kg increments)	
	Fat Rating	-4 to +4 (1 increments)	18 to 99 years old
	Body Balance Evaluation — Physique Rating		18 to 99 years old
	Muscle Mass Balance		
	Leg Muscle Score		
	Body Fat Distribution		
	Others — MM/H^2	Whole body Muscle Mass (kg)/Height (m)^2	
	MM/BW	Whole body Muscle Mass (kg)/Body Weight (kg) Total muscle mass value of Right arm, Left arm.	5 to 99 years old
	SMI*[2]	Right leg and Left leg (kg)/Height (m)^2 Total muscle mass value of Right arm, Left arm.	
	ASM*[3]/BW	Right leg and Left leg (kg)/Body Weight (kg)	
	Bioelectrical Data	Reactance/Resistance/Phase Angle	
	Contact Condition		
	Result History		

*1 Athletic mode can be selected only 18-99 years old
*2 SMI: Skeletal Muscle Mass Index
*3 ASM: Appendicular Skeletal Muscle Mass
The product design and specifications may be changed at any time without prior notice.

CE 0122 0123 This product meets the following requirements ;
1. Non-Automatic Weighing Instruments (2014/31/EU)
2. Medical Device Directive (93/42/EEC)
3. RoHS Directive (2011/65/EU)

Disposal

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

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