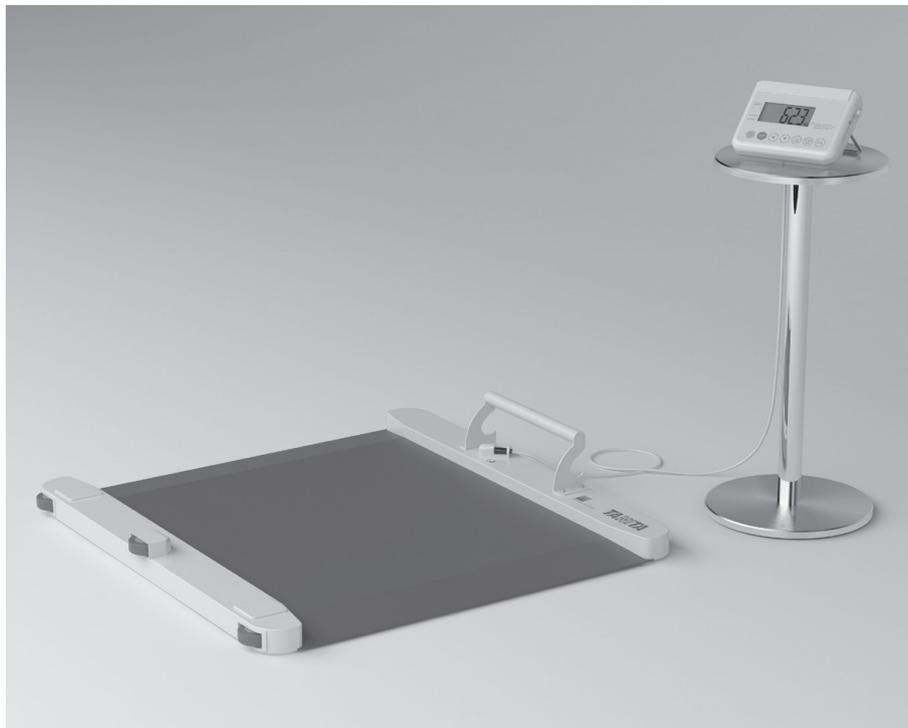


## Instruction Manual

# III Medical Weighing Equipment

# PW-650MA



\*The pictured stand is not for sale.

\*Images in this manual are for illustrative purposes only.

### <Usage Conditions>

|                            |                                       |
|----------------------------|---------------------------------------|
| Temperature Range          | : 5 to 35°C/41 to 95°F                |
| Relative Humidity Range    | : 30 to 80%<br>(without condensation) |
| Maximum Altitude           | : 2,000m ASL/6,500ft ASL              |
| Atmospheric Pressure Range | : 86 to 106kPa                        |

### <Storage/Transport Conditions>

|                            |                                    |
|----------------------------|------------------------------------|
| Temperature Range          | : -10 to 60°C/14 to 140°F          |
| Relative Humidity Range    | : 10 to 90% (without condensation) |
| Atmospheric Pressure Range | : 70 to 106kPa                     |

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



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

## Intended use

- This equipment has been calibrated as a precision weighing instrument and can be used to certify weights and/or business transactions.
- It can be used to obtain reference data during medical examinations, such as periodic checkups, and can help the prevention of obesity.

## Efficiency

Measurements can be taken quickly and easily, causing minimal inconvenience to the patient during measurements.

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# For Your Safety

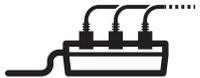
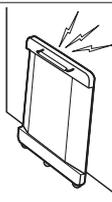
en

Before use

This section explains precautionary measures to be taken to avoid injury to the patients and operators of this equipment, and to prevent damage to property. Please familiarise yourself with this information to ensure safe operation of this equipment. The PW-650MA is not diagnostic equipment. In order to make an accurate diagnosis, in addition to the result of PW-650MA, the doctor in charge should conduct appropriate examinations and consider the results.

|  |   |
|--|---|
|  <b>Warning</b> | Failure to follow instructions highlighted with this mark could result in death or severe injury.       |
|  <b>Caution</b> | Failure to follow instructions highlighted with this mark could result in injury or damage to property. |
| <br>Prohibited  | This mark indicates actions that are prohibited.  |
| <br>Required    | This mark indicates instructions that must always be followed.  |

## Warning

|   |  |   |
|---|--|---|
| <br>Prohibited | <p><b>Do not handle the plug with wet hands.</b><br/>This may result in electric shock, fire, or current leakage. When using batteries, please do not touch the DC jack.</p>   |   |
|   | <p><b>Do not modify this equipment.</b><br/>There is a risk of electrocution or injury, and precise analysis cannot be guaranteed.</p>   |  |
|   | <p><b>Do not use multiple adapters.</b><br/>This may result in fire.</p>   |  |
|   | <p><b>Do not use the equipment if you have any kind of wound or inflammation on any part of your body that comes into direct contact with the equipment.</b></p>   |   |
|   | <p><b>Do not store leaned against a wall.</b><br/>Doing so may cause it to fall over when you touch it, leading to serious injury. Make sure to leave the equipment flat when storing. Take safety into consideration, leaning it between objects or walls so that it won't fall over.</p> |  |
|   | <p><b>Do not move or install this equipment alone.</b><br/>There is a risk of injury. When pulling to move and install this equipment, make to do so with two people or more.</p>  |   |
|   | <p><b>Do not release your hands from the equipment while moving.</b><br/>This equipment does not stand alone. There is a risk of tumble and injury.</p>  |   |
|   | <p><b>Do not stand barefoot on the equipment.</b><br/>This equipment is a weighing scale that measures while in a wheelchair. There is a safety risk when using it in any other way.</p>   |   |



## Caution



Prohibited

**Do not jump on the equipment.**

**Do not lean against the equipment.**

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

**Do not use rechargeable batteries.**

**Do not use old batteries together with new batteries, or a mix of different types of batteries at the same time.**

Doing so may cause battery fluid to leak or the batteries to become excessively hot and rupture, resulting in damage to the equipment or injury.

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

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

**Assist persons with disabilities.**

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

**Clean the equipment after each use.**

Wipe off the equipment if dust accumulates or it becomes dirty.

**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.

**Be sure that the batteries are inserted in the corrected orientation.**

If the batteries are inserted incorrectly, fluid may leak from the batteries and damage the floor.

**If you do not intend to use this equipment for a long period of time, or if you always use AC adapter, remove the batteries before storage.**

**Use the included AC adapter (ATM012T-W090V).**

**Unplug the AC adapter from the equipment when moving it.**

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

**The data provided by this equipment should be interpreted by a licensed professional.**

**This equipment may only be operated by healthcare professionals.**



Required

# For Your Safety (continued)

en

Before use

## For Accurate Measurements



Prohibited

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

**Do not apply your full weight to the rail.**  
Doing so may cause incorrect measurement.



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.



**Do not move during measurement.**

This causes inaccurate measurements.

**Use in a stable location.**

Errors in measurements may occur if the equipment 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 (electrodes, etc.) for wear or damage
3. Visually inspect the following at least monthly:
  - Mounting screws

**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.**

**Do not wipe the equipment with corrosive chemicals (benzene, cleaner, etc.).**  
Please use a mild detergent to clean the equipment.

## Usage Precautions

- \*This product is designed as a stationary equipment.
- \*This product is not intended to be moved by the operator.

### When lifting

1. When pulling the equipment to move it after use, first disconnect the AC adapter and connecting cable.  
Failure to do so may lead to breaking the equipment when moving it.
2. Holding the handle, slowly pull the platform while supporting it with the casters.  
Rotate the handle to the outside when pulling.  
Overexertion by lifting may lead to back injury and pain.

\*Especially when lifting the platform, its weight may cause it to fall over.

### When installing

1. Make sure to clear the area of obstacles and be careful of slanted or uneven flooring and move slowly.
2. The platform can also be rotated while balanced on the middle caster.  
Use the middle caster when rotating.
3. Holding the handling, use the casters for support and softly lower the equipment.  
Be careful not to crush your feet while doing this.
4. Make sure all four of the adjustable feet on the equipment contact the floor.  
Failure to do so may cause incorrect measurement.
5. Make sure nothing is in between the equipment and the floor.  
Failure to do so may cause incorrect measurement.

\*This product must be installed by at least two people.



Required

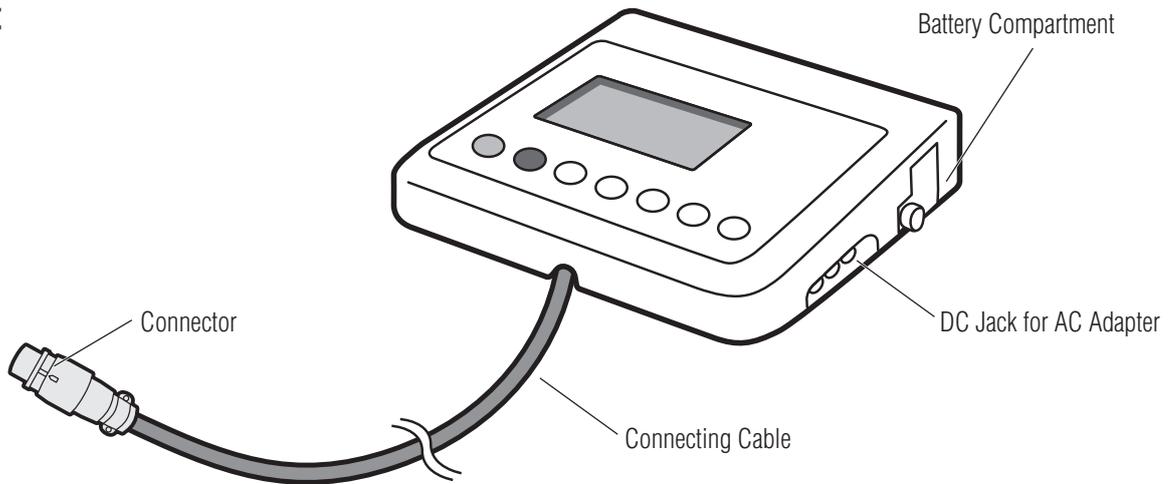


### When using

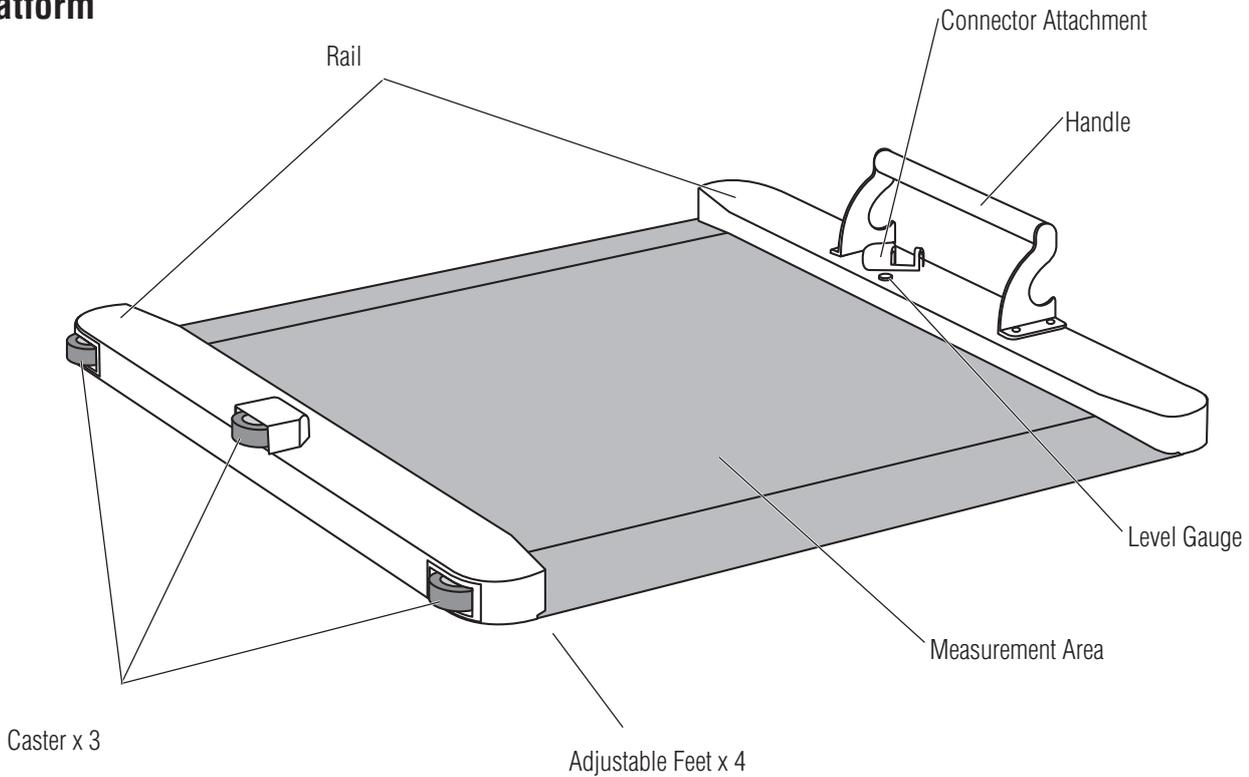
1. Do not overexert yourself to measure by yourself.
2. Be very careful when using a wheelchair.  
Certain kinds of wheelchairs cannot be put on the platform or may make it difficult to get on and off.

# Part Names/Accessories

## Control Unit



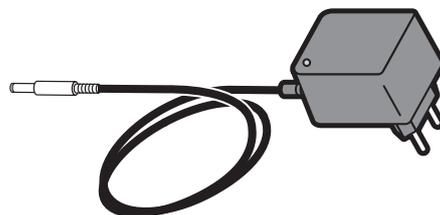
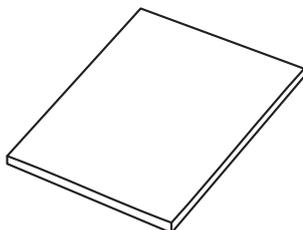
## Platform



## Accessories

Instruction Manual

AC Adapter



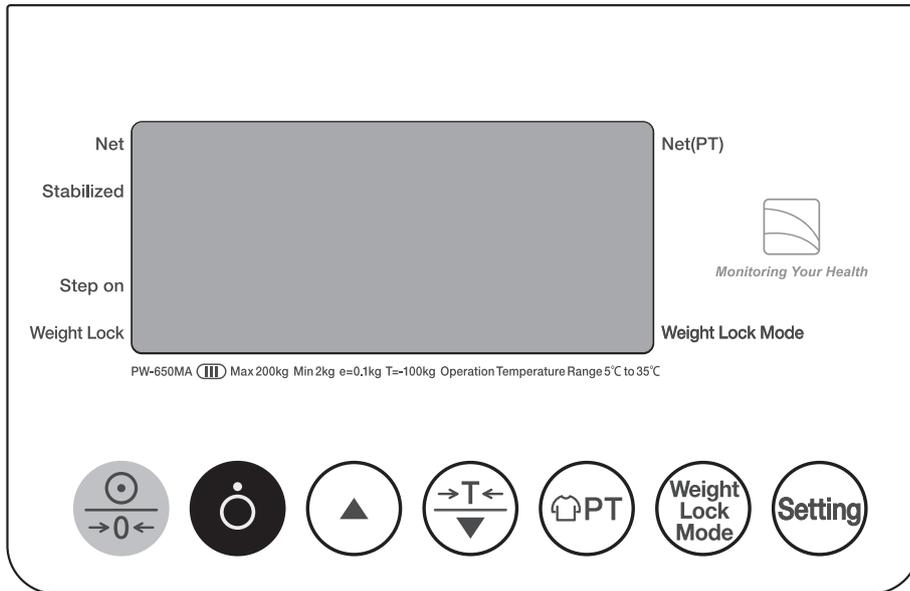
# Part Names/Accessories

(continued)

en

Before use

## Control Panel



|  |  |  |                                     |
|--|--|--|-------------------------------------|
|  | Turn power ON /<br>Scale reset to zero |  | Input Preset Tare value             |
|  | Turn power OFF                         |  | Turn Weight Lock<br>function ON/OFF |
|  | Increase numerical value               |  | Setup various functions             |
|  | Tare /<br>Decrease numerical value     |  |                                     |

- STEP ON : Start measuring weight.  
 Net / Net(PT) : Indicates that the tare value is input.  
 Weight Lock Mode : Indicates that the Weight Lock function is activated.  
 Weight Lock : Indicates that the Weight is locked.  
 Stabilized : Indicates that the displayed figure has stabilized.

## Symbols and their Meanings

|  |                       |  |  |  |   |
|--|-----------------------|--|--|--|---|
|  | Power On              |  | Power Off  |  | Direct current                          |
|  | Zero reset            |  | Conformity with Medical<br>Device Directive 93/42/EEC          |  | NAWI accuracy class III                 |
|  | Class II Equipment    |  | Manufacturer<br>(Date of manufacture)                          |  | Polarity of d.c. power<br>connector     |
|  | Polarity of a battery |  | WEEE - Waste Electrical and<br>Electronic Equipment Directives |  | See the instructions                    |
|  | Alternating current   |  | Serial number  |  | Caution<br>Refer to the attached notes. |
|  | For indoor use only   |  | Tare function  |  |   |

# Preparations Before Use

## How to Install Correctly

### Use the product on a firm, level and stable surface.

- Do not install in a location with direct sunlight, near a heater or directly contacted by air conditioning.
- Avoid using in locations with extreme changes in temperature.
- Do not install in locations with high humidity or moisture.

#### Note

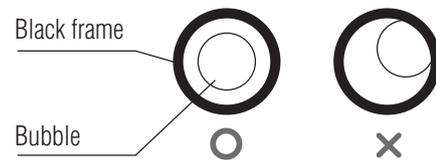
Installing on rugs, carpets, tatami, etc., may result in incorrect measurement.  
Installation in locations with extreme vibration may result in incorrect measurement.

## Checking the Level Gauge

### Use the product on a firm, level and stable surface.

- Install on a level surface to ensure correct weight measurement.
- Rotate the four adjustable feet until the bubble in the level gauge is centered.

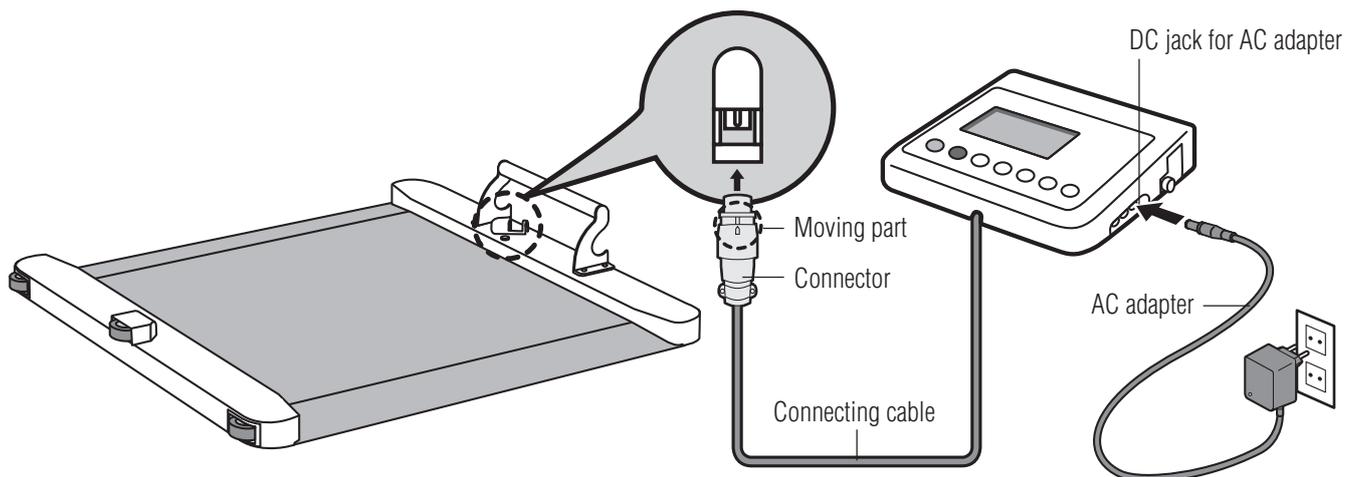
Looking look at the meter from directly above it



#### Note

Install the product on a firm, even surface. If the adjustable feet are not used to achieve even leveling, the product may fall over during measurement or it may result in incorrect measurement.

## How to Connect

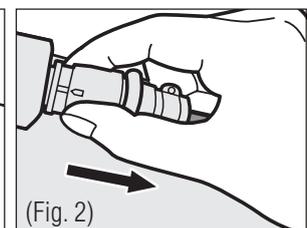
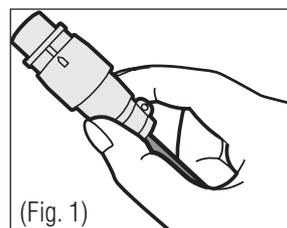


### Connecting the platform and the control unit

Use the connecting cable to connect the platform and the control unit.

\*When connecting the platform and the control unit, hold the connector slightly on the lower side (not the moving part) and align the white circle to connect (Fig. 1).

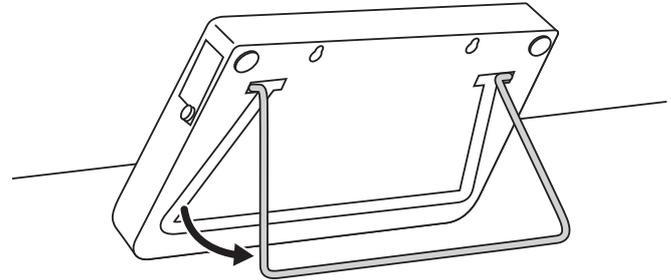
\*When removing the connector from the platform, Pull the moving part of the connector out (toward the arrow) (Fig. 2).



# Preparations Before Use (continued)

## When Using the Stand

Pull out the stand and use it to prop the control unit up on its side.



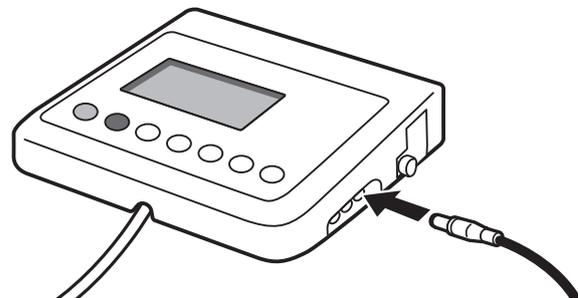
## Power Supply

### When using the AC Adapter

Insert the AC adapter plug into DC jack socket of the control unit, and plug the AC adapter into a wall socket.

#### Note

Use only genuine Tanita products.  
When using the AC adapter, please use it after removing the batteries.

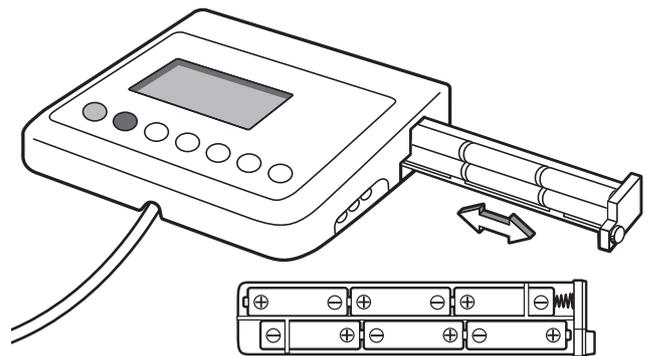


### When using the batteries

“Lo” is displayed when battery power is running out. Promptly replace with six new batteries.

### Replacing the batteries

1. Loosen the lock screw on the battery compartment in the control unit to remove the battery compartment.
2. Insert the batteries correctly by aligning them as show, then tighten the battery compartment lock screw to close.



Prohibited

**Do not use old batteries together with new batteries, or a mix of different types of batteries at the same time.**

Doing so may result in malfunction.

**Do not replace with wet hands. Do not allow water to contact or spill on the battery compartment.**

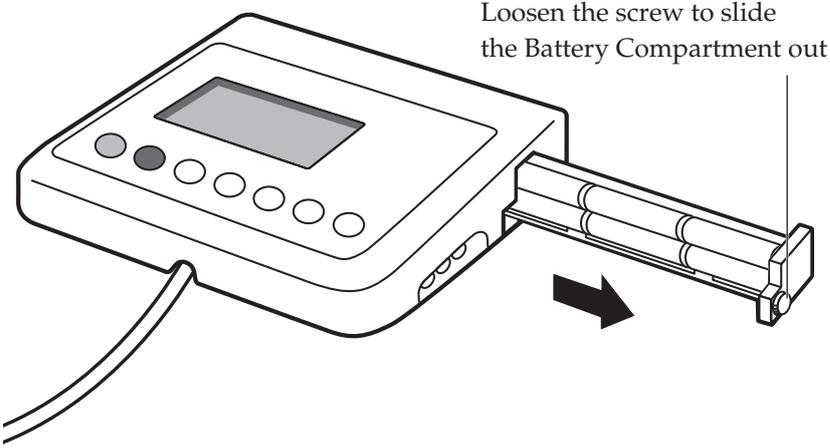
Doing so may result in malfunction.

#### Note

Approximately 100 hours (when using alkaline dry cell batteries)

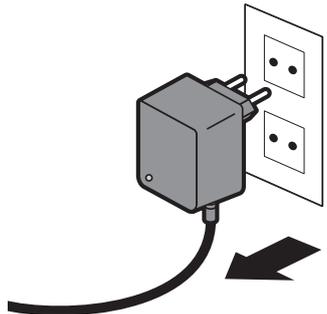
## Emergency Shutdown

### When using the batteries



### When using the AC Adapter

Keep the area around the plug socket clear during operation of the equipment in case of an emergency.



Required

**Pull out the AC Adapter in case of an emergency.**

# Preparations Before Use (continued)

en

Before use

## Setting Automatic Power Off Time

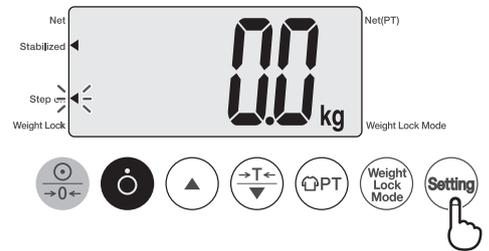
Automatic Power Off is a function that turns off the power automatically after the set time has passed if no operations are being performed.

1 Press  .  
 blinks, then  is displayed.



2 Press  while nothing is on the platform.

Enters the settings mode.



3 Select  using  or  , then press  .

The current set time is displayed as "OFF 00".  
 (-- (disabled) is the factory setting)

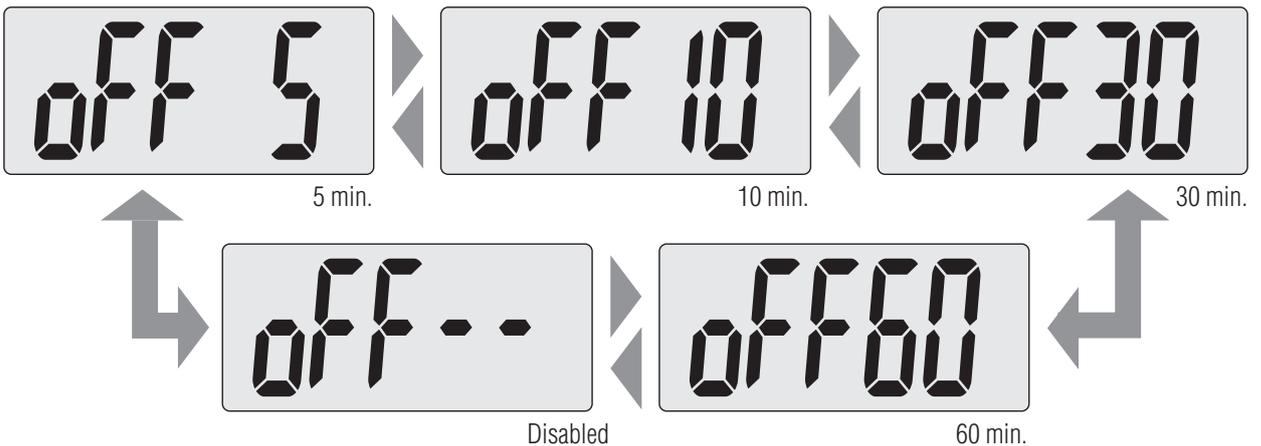
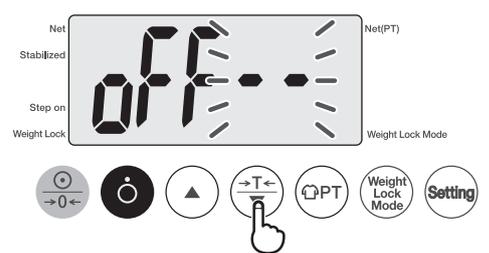


4 Press  or  to adjust the time.

The display changes with each button press.

\*The time can be set to 5 min., 10 min., 30 min., 60 min. or -- (disabled).

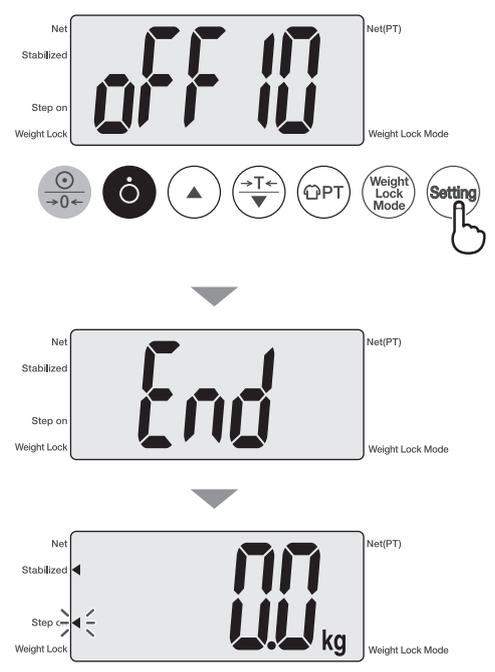
\*-- (disabled) indicates that Automatic Power Off will not activate.



5 Press **Setting** to set the desired time.  
Saves the set time and finishes.

\*If **Setting** is not pressed after the time is changed, the changed time will not be saved.

When **00 kg** is displayed, the setting is completed.



# How to Use

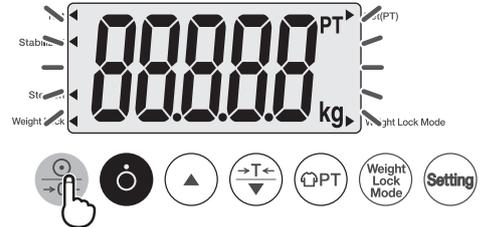
en

How to use

## Measuring Weight

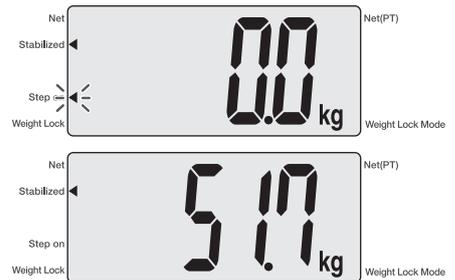
1 Press  .

 blinks.



2 Step onto the center of the platform once  is displayed.

After load is stabilized, "Stabilized" ◀ lights up.



3 Step off the platform when measurement is finished.

Display returns to .

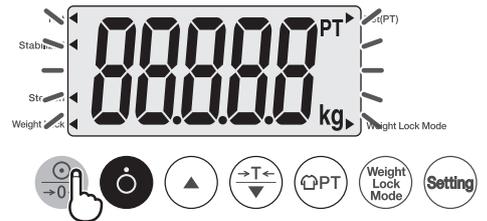


## Weight Lock Mode

This product has weight lock function. In order to use this function, enable the "Weight Lock Mode" in advance. When this function is enabled, the display is locked after the weighing value is stabilized.

1 Press  .

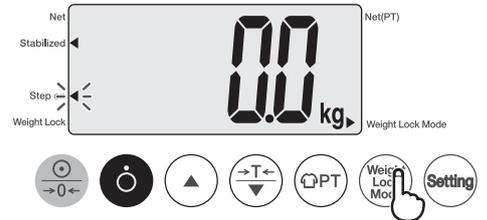
 blinks, then  is displayed.



2 Press  to enable Weight Lock Mode.

When the weight lock mode is enabled, "Weight Lock Mode" ▶ lights up.

\*This function is disabled when the power is turned on.



3 When the weight lock function is enabled, the measured value is locked after the load is stabilized.

When the weight is locked, "Weight Lock" ◀ lights up.

Weight Lock can be unlocked if the weight reaches 2kg.



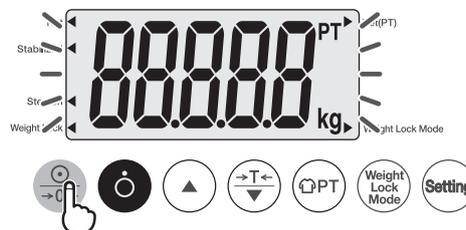
Note

External output is available only in Weight Lock Mode.

## Using Tare

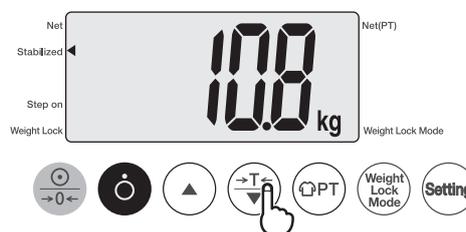
Maximum 200kg can be measured including the tare weight and measured weight.

- 1 Press  .
-  blinks, then  is displayed.



- 2 With nothing on the platform, first place the item for the tare weight (chair, etc.), then press  .

\*The maximum tare weight is 100kg.



- 3 The measured value is set as the tare weight and  is displayed.

"Net" ◀ lights up to indicate that a tare weight is being subtracted.

\*To cancel the tare weight, press  with nothing on the platform.

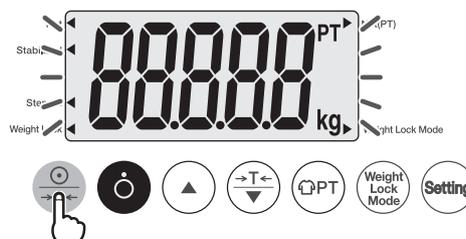
\*To change the tare weight, turn off the power and then turn it on again.



## Using a Preset Tare

Measurement can be taken minus the weight of clothing, wheelchair, etc., measured in advance. Maximum 200kg can be measured including the preset tare weight and measured weight.

- 1 Press  .
-  blinks, then  is displayed.

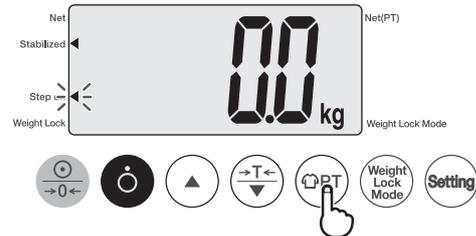


# How to Use (continued)

en

How to use

2 Press  while nothing is on the platform.

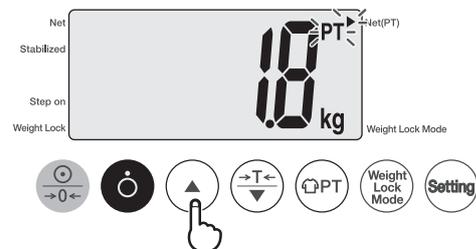


▶ "Net(PT)",  and **PT** blink.



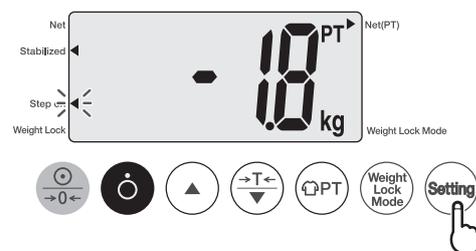
3 Set the preset tare weight using  or .

\*Preset tare weight can be set in 0.1kg increments.  
\*The maximum preset tare weight is 100kg.



4 Press .

The preset tare weight is selected.



Note

If  is not pressed, the preset tare weight is automatically selected if it is not changed for 10 seconds. You can fast-forward numbers if you keep holding down  or .

5 Step onto the center of the platform.

The net weight minus the tare weight is displayed.



Note

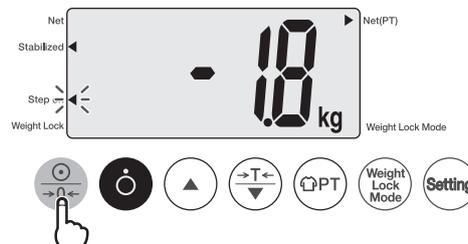
The preset tare weight is stored in memory and set automatically the next time you take a measurement.

## Canceling the Preset Tare Temporarily

The set preset tare can be canceled temporarily.

- 1 Press  while a preset tare weight is being subtracted and nothing is on the platform.

The set preset tare weight is canceled and the display returns to  kg.



### Note

To completely cancel it, change the preset tare weight to  kg (see "Changing the Preset Tare Weight").

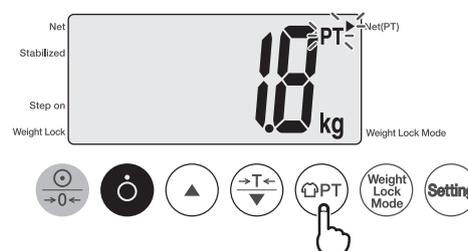
To change the tare weight, turn off the power and then turn it on again.

You can use preset mode again by pressing .

## Changing the Preset Tare Weight

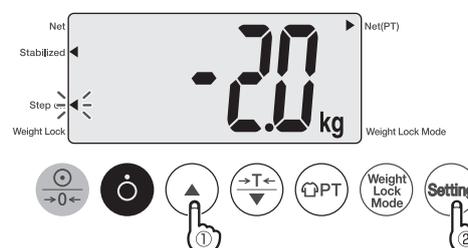
- 1 Press  while a preset tare weight is being subtracted and nothing is on the platform.

The preset tare weight can be changed from the current setting.  
▶ "Net(PT)" and **PT** blink.



- 2 Change the preset tare weight using  or , then press .

\*Preset tare weight can be changed in 0.1kg increments.



### Note

Press  to cancel setting or turn off the display. Pressing  before  causes the power to turn off without saving contents to memory.

\*The tare and preset tare functions cannot be used at the same time.

# Various Settings

en

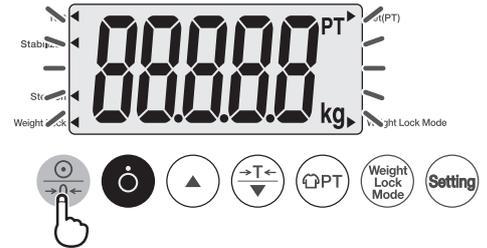
If necessary

## Time Settings

Time is set at the factory, but may need to be corrected, so please set it again (the internal clock backup batter may be depleted when using this product for the first time. Connect the AC adapter for at least two days, or charge by inserting AA batteries. The battery charges even when the power is off).

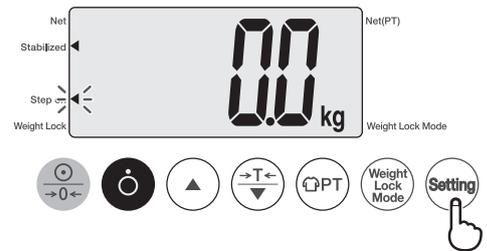
1 Press  .

 blinks, then  is displayed.



2 Press  while nothing is on the platform.

Enters the settings mode.



3 Select  using , then press .



4 Select the year using  or , then press .

The currently set year is displayed.

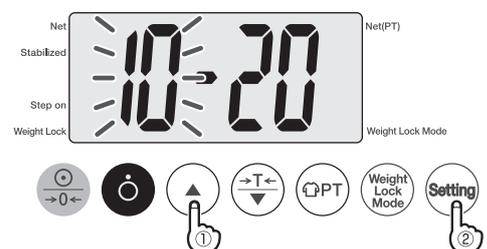
\*The flashing section can be changed from 10 to 99.



5 Select the month using  or , then press .

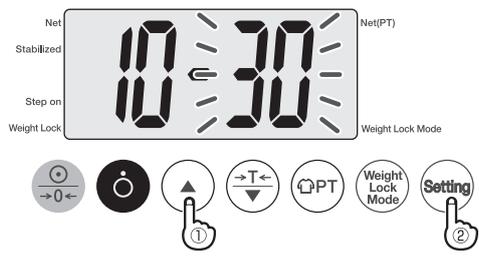
The currently set month is displayed.

\*The flashing section can be changed from 1 to 12.



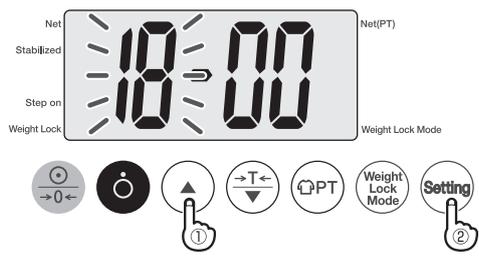
# 6 Select the day using or , then press .

The currently set day is displayed.  
\*The flashing section can be changed from 1 to the number of the last day in the set month.



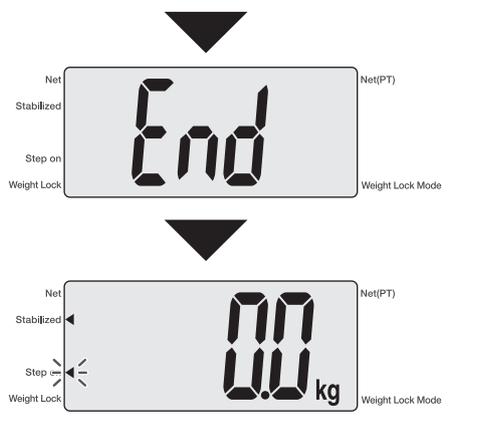
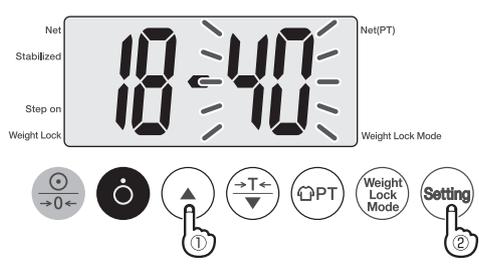
# 7 Select the hour using or , then press .

The currently set hour is displayed.  
\*The flashing section can be changed from 0 to 23.



# 8 Select the minute using or , then press . Saves the set time and finishes.

The currently set minute is displayed.  
\*The flashing section can be changed from 0 to 59.



Ready for measurement once  is displayed on the screen.

### Note

Press  to cancel setting or turn off the display. The power is forced off.  
When you press  in  being displayed,  is displayed if the clock IC battery is low.  
When the battery is low, the date and time may be tracked incorrectly. Should this occur, set the date and time again.

# Various Settings (continued)

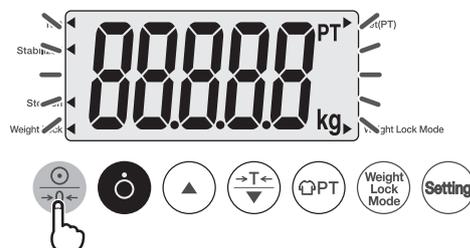
en

If necessary

## External Output Settings

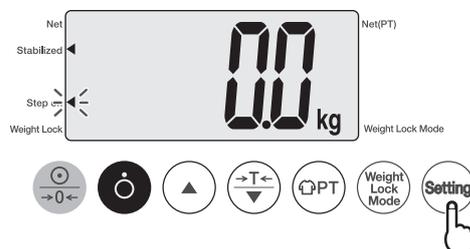
Use external output settings to select an external device to connect to this product.

1 Press  .  
 blinks, then  is displayed.



2 Press  while nothing is on the platform.

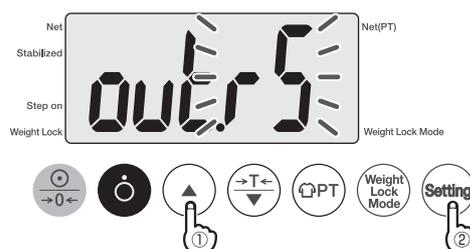
Enters the settings mode.



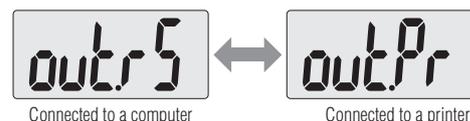
3 Select  using  or  , then press  .



4 Select the external output port using  or  , then press  .



The current setting is displayed (RS-232C is the factory setting). Press the button to switch the output signal between out.Pr (printer) and out.rS (RS) each time the button is pressed.



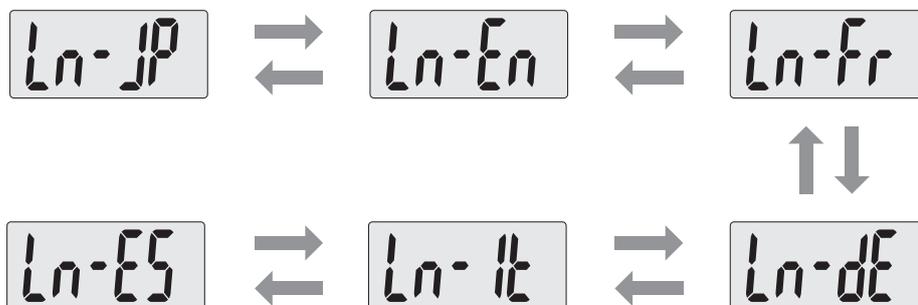
\*See pg. 24 for the RS-232C output format.

\*Be careful, because aggressively moving the cable that connects the product and the optional device during measurement may result in incorrect values.

External output is available only in Weight Lock Mode.

If you set printer as the output destination, you can select language.

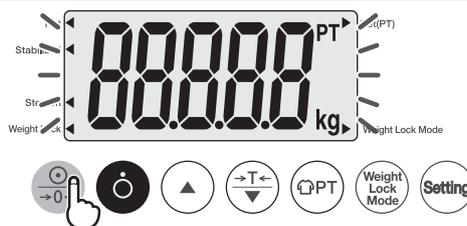
Change language using or , then press . (English is the factory setting.)



# Confirmation Software Version Number

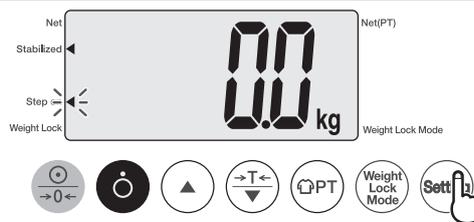
1 Press .

blinks, then is displayed.

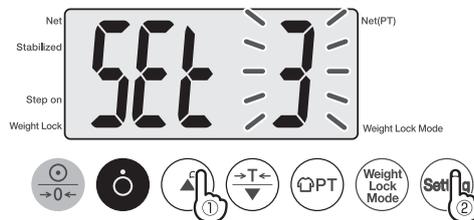


2 Press while nothing is on the platform.

Enters the settings mode.



3 Select using or , then press .



4 The software version number is displayed.

Change the screen using .

Displays the version number for Display software, followed by AD Converter software.



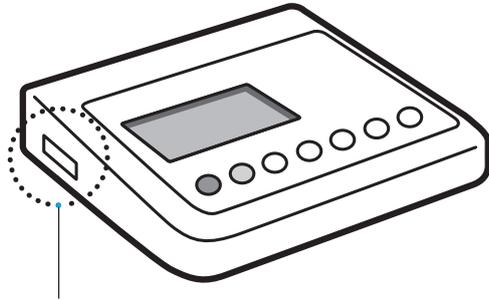
# Output Data Format

en

If necessary

This explanation is for the interface to output the readings from PW-650MA to external equipment (e.g. PC) as a RS-232C-compliant signal.

## Specifications



\*The RS232C port is attached to left of the control unit.

|                        |              |
|------------------------|--------------|
| Communication standard | EIA RS-232C  |
| Communication method   | Asynchronous |
| Signal speed           | 9,600bps     |
| Data bit length        | 8bit         |
| Parity                 | NONE         |
| Stop bit               | 1bit         |
| Terminator             | CR+LF        |
| Flow control           | None         |

### Note

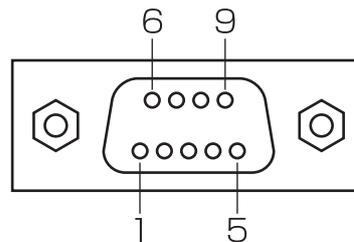
A RS-232C connector (D-sub 9-pin female) is attached to the side of the control unit.

The RS-232C extension cable (straight cable) is required for connection to a computer, etc. Some commercially available cables cannot be connected to this product. The connection cable to the PC must be used less than 3m. When connecting a computer or peripherals, be sure that compliance with IEC60601-1 (EN60601-1) is maintained.

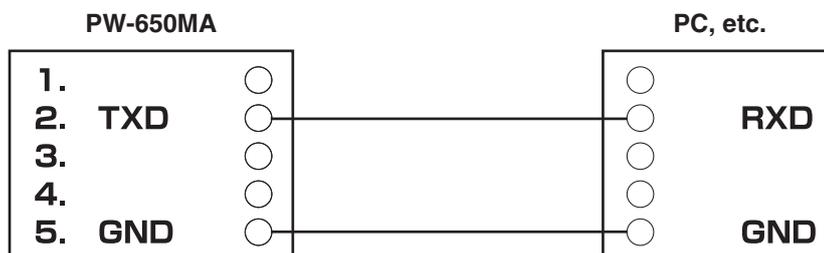
If the power is supplied in compliance with IEC60950 (EN60950), power must be supplied from a medical isolating transformer. Keep at a minimum distance of 1.5m between each item of equipment during operation.

## Signal Line Name and Connection Method

| Terminal no. | Signal name |
|--------------|-------------|
| 1            |             |
| 2            | TXD         |
| 3            |             |
| 4            |             |
| 5            | GND         |
| 6            |             |
| 7            |             |
| 8            |             |
| 9            |             |



## Connection Example



## Transmission Data

Transmission data is output immediately after measurement regard-less of the status of the reception side (e.g. PC). Therefore, the reception side must always be ready to receive data before any measurements are taken.

### When the display is held

| Item               | Header | Output data (ASCII code) | Details                                |
|--------------------|--------|--------------------------|--|
| Control data       | {0     | Fixed at 16              |  |
| Control data       | ~0     | Fixed at 1               |  |
| Model No.          | MO     | "PW-650"                 | 8 bytes fixed                          |
| Date               | Da     | "dd/mm/yyyy"             | 12 bytes fixed                         |
| Time               | TI     | "hh : mm"                | 7 bytes fixed                          |
| Body weight        | Wk     | XXX.X                    | 3 - 5 bytes variable length (unit: kg) |
| Preset tare weight | Pt     | XXX.X                    | 3 - 5 bytes variable length (unit: kg) |
| Tare weight        | Ta     | XXX.X                    | 3 - 5 bytes variable length (unit: kg) |
| Checksum           | CS     | XX                       | 2 bytes fixed length                   |

#### Note

Unit for weight, preset tare and tare is kg.

Individual data is separated by a comma (,).

The terminator (end of data) is CR (ASCII code 0DH) and LF (ASCII code 0AH).

Control data, items 1 and 2, are for expansion. They are currently unused and can be ignored.

0.0 is output when the preset tare weight is invalid.

#### Example of RS-232C output data format.

For a load of 60.1 kg, preset tare 2.0 kg, tare not used, taken on April 30, 2020, at 8:02 pm.

{0, 16, ~0, 1, MO, "PW-650", Da, "30/04/2020", TI, "20:02", Wk, 58.1, Pt, 2.0, Ta, 0.0, CS, D6[CR][LF]

The data is output as a single message attached to the above terminator (CR+LF).

# Troubleshooting

en

If you think your equipment is malfunctioning, check the following before ordering repairs.

If necessary

| Issue   | Items to check  | Reference page |
|---|---|----------------|
| <p>Nothing is displayed when  is pressed</p>   | <p>When using the AC adapter<br/>Makes sure the AC adapter plug and DC jack are connected and the plug is connected to an outlet.</p> <p>When using batteries<br/>The batteries may be dying. Insert new batteries.<br/>Make sure the ⊕ and ⊖ on the batteries are pointed in the correct direction inside the battery box.</p> | 12             |
| <p> is displayed</p>   | <p>The batteries are dead. Promptly replace them.</p>   | 12             |
| <p>Characters quickly disappear after they are displayed.</p>   | <p>The batteries are dead. Promptly replace them.<br/>( may not always be displayed when the remaining battery is low)</p>  | 12             |
| <p>Blinking </p>   | <p>Measurement accuracy may be affected in locations with heavy vibrations. Change the location of the product and try again.</p>   | 11             |
| <p>The display won't lock</p>   | <p>Is the Weight Lock Mode turned off?</p>  | 16             |
| <p> is displayed during measurement</p>  | <p>The maximum weight of 200kg has been exceeded.</p>   | 27             |
| <p> is displayed when  is pressed</p> | <p>Remove everything from the platform.</p>   |                |
| <p> is displayed when  is pressed</p> | <p>The platform and the control unit are not connected.</p>   | 11             |

# Specifications

en

If necessary

|  |   |  |
|--|---|--|
| Model number                           |   | PW-650MA   |
| Classification                         | MDD                                     | Class Im   |
| Accuracy class                         | NAWI                                    | Class III  |
| Power source                           | AC adapter<br>(ATM012T-W090V Class II ) | Input: 100-240V AC 50-60Hz<br>Output: 9V DC<br>Plug Type: Center minus         |
|  | Battery                                 | 9V DC LR6 (AA alkaline battery)×6  |
| Electric current range                 |   | 10.8VA   |
| Energy consumption                     |   | 0.3W or less   |
| Weight measurement                     | Measurement system                      | Strain gauge load cell   |
|  | Maximum capacity                        | 200.0kg (including preset tare or tare value)                                  |
|  | Minimum graduation                      | 0.1kg  |
|  | Measurement range                       | 2.0 to 200.0kg   |
|  | Preset tare or tare                     | 0.0 to 100.0kg   |
|  | Accuracy at first calibration           | ±0.1kg   |
| Display                                |   | 5Digits LCD, Height of numerals 38mm   |
| Interface                              |   | RS-232C  |
| Usage conditions range                 | Temperature                             | 5 to 35°C /41 to 95°F  |
|  | Relative humidity                       | 30 to 80% (without condensation)   |
|  | Maximum altitude                        | 2,000m ASL/6,500ft ASL   |
|  | Atmospheric pressure                    | 86 to 106kPa   |
| Storage/<br>Transport conditions range | Temperature                             | -10 to 60°C/14 to 140°F  |
|  | Relative humidity                       | 10 to 90% (without condensation)   |
|  | Atmospheric pressure                    | 70 to 106kPa   |
| Product size                           | Control unit                            | 159×209×56mm/0.5kg   |
|  | Platform                                | 908×946×164mm/28.0kg   |
|  | Cable length                            | Approximately 2.9m   |
| Time accuracy                          |   | Within ±1 minute per month (normal temperature)                                |
| Battery life                           |   | Approximately 100 hours of continuous use when using LR6 (AA Alkaline battery) |



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

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**Disposal**



This is an electronic device.  
Please dispose of it as an electronic device, not as  
general household waste. Please follow the regulations  
in your local region when disposing of this device.



**⚠ Not allowed to mix batteries with consumer wastes!**

As consumer you are legally bound to return used or discharged  
batteries. You can deposit your old batteries at the public collecting  
points in your town, or wherever the corresponding batteries are sold  
and specifically marked collecting boxes have been set up. In case of  
scrapping the apparatus, the batteries should be removed from it and  
deposited at the collecting points as well.