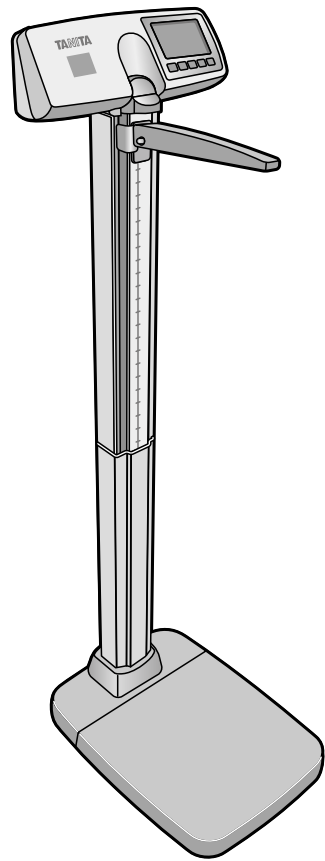**TANITA** ®
*Monitoring Your Health*

# ELECTRONIC PHYSICIAN SCALE
# WB-3000

## INSTRUCTION MANUAL



⚠ Please keep this manual in a safe place, and make sure it is readily available whenever necessary. Please use this product only after carefully reading this manual and fully understanding its contents.

# 1. Table of Contents

# 2. Safety Notes

**Caution Symbols**

For optimum performance and safety, please familiarize yourself with the Caution Symbols below. These symbols are designed to alert the user to potential hazards when using this equipment. Ignoring these Caution Symbols may result in serious injury, or damage to the product. Please be sure to review before proceeding with the INSTRUCTION MANUAL.

⚠ **WARNING** **This symbol indicates the possibility of serious injury if the product is mishandled or instructions are ignored.**

⚠ **CAUTION** **This symbol indicates the possibility of physical injury or equipment damage if instructions are ignored.**

⚠ **This symbol indicates general precautions that should be taken when using this product.**

⚠ **WARNING**

• Inserting and Removing the AC adapter to reduce the risk of electric shock or product damage, never insert or remove the AC adapter with wet hands.
• Do not under any circumstances dismantle or alter the device, as this could result in electric shock or injury as well as adversely affecting the precision of measurement.
• To prevent fire hazard use only a correctly wired (120V AC) outlet, and do not use a multiple outlet extension cable.

⚠ **CAUTION**

• Please make sure you place the scale on a level and stable surface. If the equipment is used when the scale is unstable, because not all feet are on the surface, there may be a risk of injury or inaccurate measurement.
• Never jump on the scale, there may be a risk of injury and malfunction of the equipment.
• The equipment must be used with the included AC adapter only.
• Do not insert or remove the AC plug by the cable.
• Do not place a finger into any gap or any hole of the equipment. You may be injured.
• Please use caution when adjusting the height rod to prevent injury.
• Please return the height rod to the storage position after completion of measurement.
• Please do not touch or lean on the height rod or the display during weighing as this will reduce accuracy.

⚠ **Maintenance**

**This is a precision manufactured and accurately calibrated product. Please observe the following instructions.**

• If the equipment is moved to a place with a temperature difference of 18˚F/10˚C or more, leave if for at least two (2) hours before use.
• Avoid subjecting the equipment to excessive shocks or vibrations.
• Never disassemble or adjust the equipment, as this may cause malfunctions.
• When not in use for an extended time, unplug the AC adapter from the wall socket.
• Do not wipe the equipment with corrosive chemicals (benzene, acetone, etc.). Please use a neutral detergent to clean the equipment.
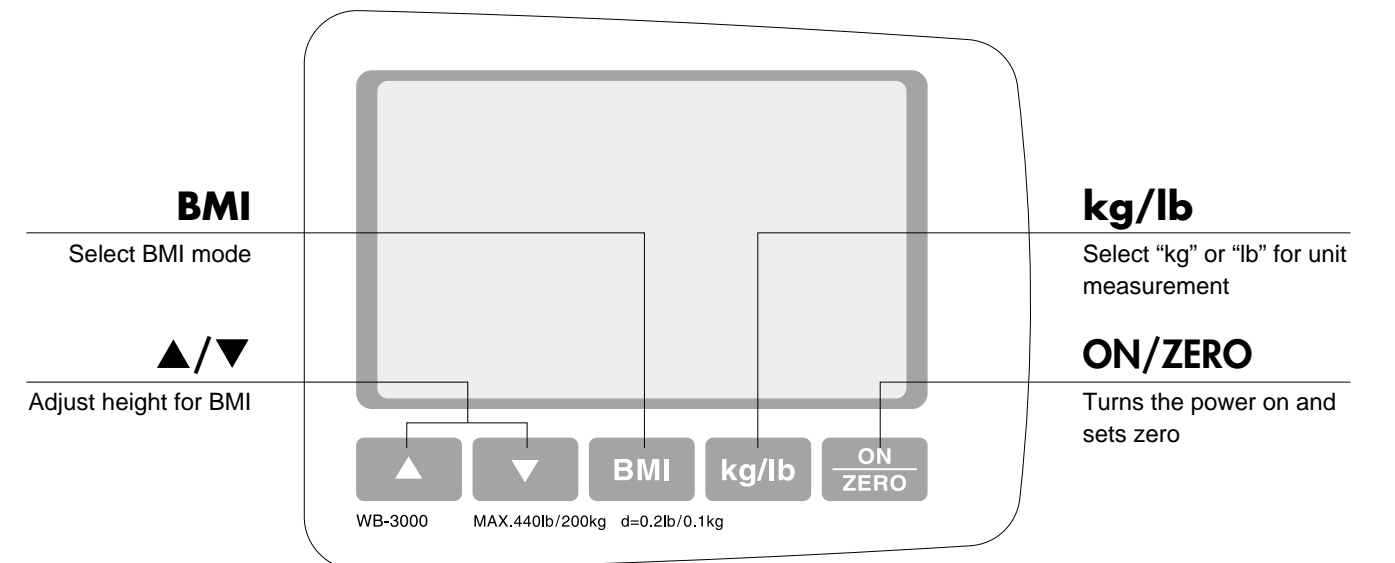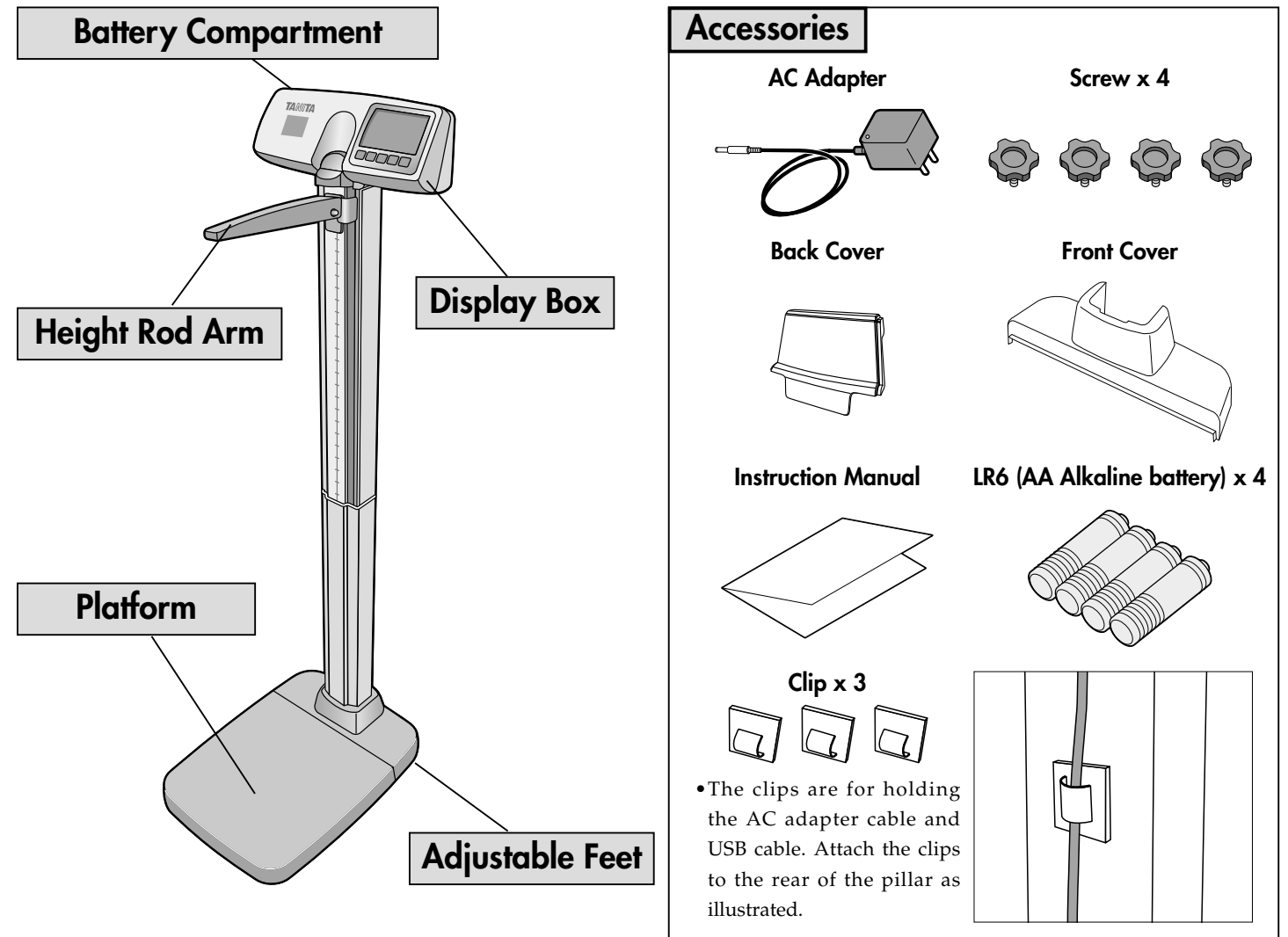• Do not use cellular phones or microwave therapy equipment near this equipment.
**It may not measure correctly due to equipment malfunction.**
• When disposing of this equipment, please do so in accordance with the prevailing regulations in your country, state and city.
• If an unauthorized person attempts to disassemble or repair any part of the equipment, the warranty will become invalid. When the unit malfunctions, please consult your nearest Tanita sales office or agent.

# 3. Based on NIH/WHO BMI Guidelines

| Under Weight | | BMI < 18.5 |
|---|---|---|
| Normal Range | | 18.5 ≦ BMI < 25 |
| Pre obese | | 25 ≦ BMI < 30 |
| Obese | CLASS I | 30 ≦ BMI < 35 |
| Obese | CLASS II | 35 ≦ BMI < 40 |
| Obese | CLASS III | BMI ≧ 40 |

# 4. Part Names & Accessories

**Battery Compartment**

**Height Rod Arm**

**Display Box**

**Platform**

**Adjustable Feet**



**Accessories**

AC Adapter    Screw x 4

Back Cover    Front Cover

Instruction Manual    LR6 (AA Alkaline battery) x 4

Clip x 3

• The clips are for holding the AC adapter cable and USB cable. Attach the clips to the rear of the pillar as illustrated.

**BMI**
Select BMI mode

**▲/▼**
Adjust height for BMI

**kg/lb**
Select "kg" or "lb" for unit measurement

**ON/ZERO**
Turns the power on and sets zero

| ▲ | ▼ | BMI | kg/lb | ON ZERO |

WB-3000    MAX.440lb/200kg  d=0.2lb/0.1kg

# 5. Assembly Instructions

## 1. List of Components

❶ Base (fully assembled and pre-wired to display assembly)

❷ Cable (Base side)

❸ Lower Pillar Assembly

❹ Screw

❺ Cable (Top Head Display Assembly Side)

❻ Top Head Display Assembly (fully assembled and pre-wired to base)

❼ Back Cover

❽ Front Cover

❾ Top Height Rod Assembly (fully assembled with pivoting height measuring lever)

❿ Height Rod Arm

⓫ Lower Height Rod Assembly
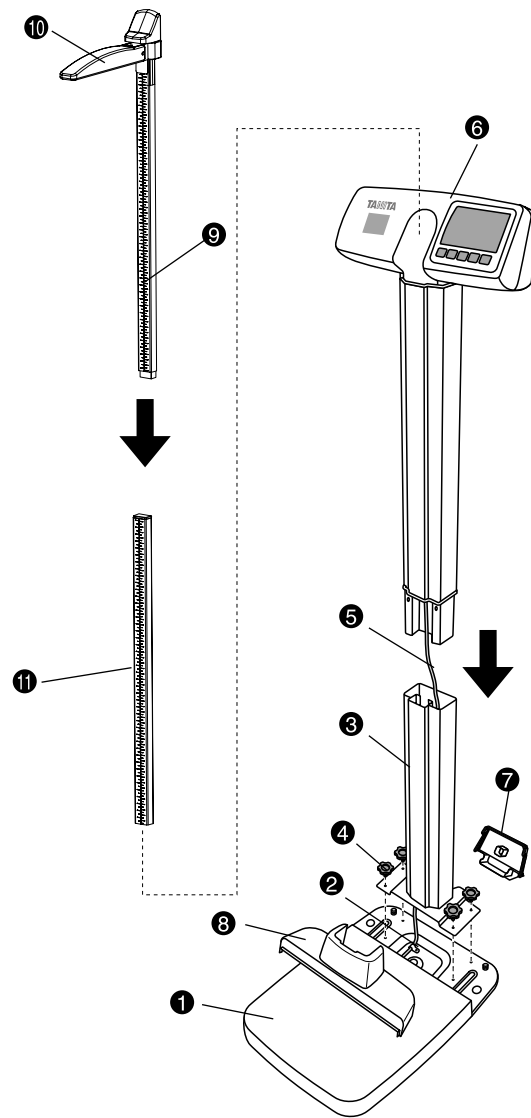
## 2. Assembly

1) Carefully remove all components from the box.

2) Place all items on the floor side by side.

3) Install the Lower Pillar Assembly into the Base using the four (4) Screws while carefully avoiding pinching the cable.

4) Assemble the Top Head Display into the Lower Pillar assembly while carefully inserting the cable into lower pillar assembly and extending it the full length of the lower pillar.

5) Connect the Cable from the bottom of the lower pillar assembly to the cable on the base.

6) Attach the Back cover onto the back side of the bottom of lower pillar assembly.

7) Attach the Front cover to the front side of the lower pillar assembly while holding the Back cover securely in place.

8) Assemble the top height rod assembly to the lower height rod assembly correctly.

9) Slide the assembled height rod into the height rod opening on the pillar assembly. Push all the way down.
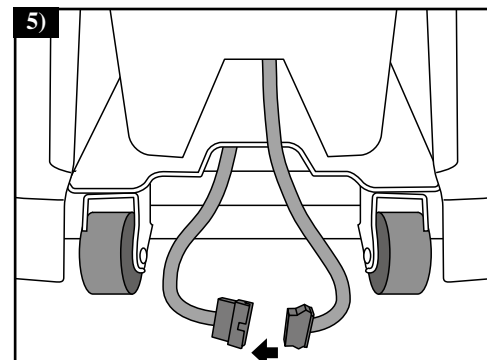
⚠ **CAUTION** • Be careful not to catch your fingers during assembly.

**5)**

# 6. Set up

## Use the scale in a firm, flat and stable location.
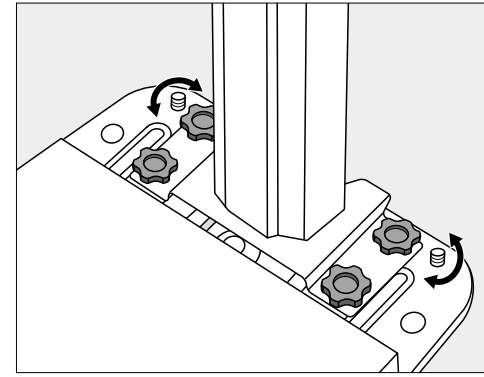
To obtain the highest level of accuracy, please make sure that all four (4) feet are touching on the floor evenly.

For further accuracy and security, please position the two (2) adjustable supporting feet on the base (found under the front cover) until they just make contact with the floor (do not overextend)

• Do not position it anywhere that is subject to direct sunlight, near heating equipment, or directly in the path of an air conditioner outlet.

• Do not use it anywhere that is subject significant temperature change.

• Do not position it anywhere that it either damp or subject to high humidity.

⚠ **CAUTION** • Put the weighing platform on a flat, level surface.

# 7. Operation by AC adapter

## AC adapter is much preferable when the scale will be used continuously.

1) Insert the AC adapter jack into the AC adapter inlet on the back side of display.

2) Plug the AC adapter into the power outlet.

⚠ **WARNING** • In order to reduce the risk of electric shock, never insert or remove the power code with wet hands.

⚠ **CAUTION** • This equipment must be used with the included AC adapter only.

# 8. Operation by batteries

**1-1)**

**1-2)**

TANITA

**Image**
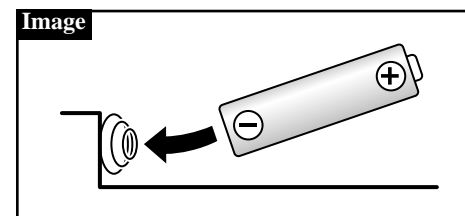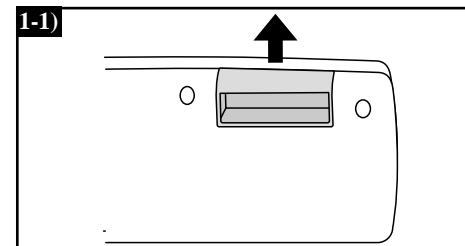
1) When the batteries start to run low, "Lo" appears on the display panel as a warning.

2) Pull up the battery case which located on top of display. All batteries should be immediately replaced with new ones at the same time.

• Do not use a combination of alkaline and manganese batteries, as such an arrangement may result in equipment failure.

• Rechargeable batteries are NOT recommended use.

3) Push down the battery case completely.

* Insert new batteries such that the negative terminals of the batteries are pushed up against the coils within the battery housing.

## 1. Standard Weighing Procedures

**1) Turn on the power by pressing the [ON/ZERO] key.**

**2) After all the segments flash, [0.0lb/0.0kg] is displayed.**

**3) The person to be weighed should still in the middle of the platform.**

**4) The weight will be locked-in and displayed on the display. "○ (Hold)" sign will appear in the upper left corner of the display.**

When the scale is connected to an external device, weight data will be exported at this time.

**5) The scale will automatically shut off in 30 seconds.**

*Note:* • Do not press the ON key while standing on the scale, as accurate measurement will not be possible.

## 2. BMI Weighing

**1) Turn on the power by pressing the [ON/ZERO] key.**

**2) After all the segments flash, [0.0lb/0.0kg] is displayed.**

**3) The person to be weighed should still in the middle of the platform.**

**4) The weight will be locked-in and displayed on the display. "○ (Hold)" sign will appear in the upper left corner of the display.**

**5) Press the [BMI] key (or [▲] [▼]). The default height [5ft7.0in/170cm] will be displayed.**

**6) Set the height with the [▲] [▼] key.**

**7) Once the height and weight have been established, press the [BMI] key.**

**The weight and BMI calculation will then be displayed.**

When the scale is connecting to an external device, weight, height and BMI data will be exported at this time.

**8) The scale will automatically shut off in 30 seconds.**

The setting of height for BMI is can be accomplished in any one of the following means by pressing the [BMI] key (or [▲] [▼]).

• Before stepping on the scale.

• After pressing the [ON/ZERO] key.

• After weight measurement while the weight result remains on the display.
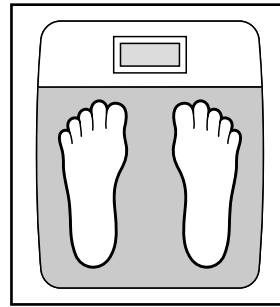
## 3. Step on Function

**The scale will turn on automatically when the user steps onto the platform.**

*Note:*

• If the weight is less than 22lb/10kg, the "Step-On" function will not work.

• If person less than 22lb/10kg, press the [ON/ZERO] key manually to turn on the scale.

• If an item is placed on the scale while it is powered off, accurate measurement will not be possible and the Step on Function may not operate properly.
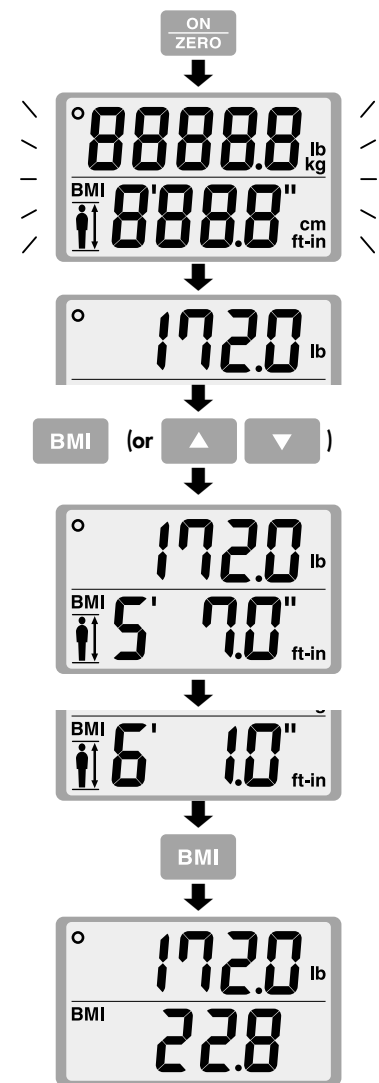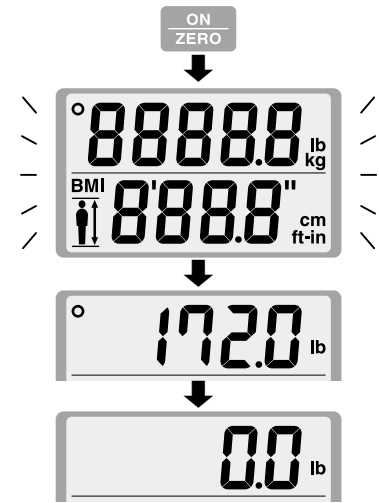
## 4. Changing Measurement Units

**This function is used to change the measurement units on the display.**

e.g. When change the unit "kg" to "lb".

**Press the [kg/lb] key.**

The measure shifts from "kg" to "lb" and the measurement units change.

The user should step on the platform without wearing shoes for accurate measurement.
Always have someone assist the user for accurate measurement.

1) **Adjust the Height Rod Arm position before the user steps on the platform. Place hand on the Height Rod Arm.**

If the subject is taller than 48″ / 120 cm, pull the Height Rod Sliding Block and Height Rod Arm at the same time upward so that the arm is positioned higher than the subject's head.

If the subject is shorter than 48″ / 120 cm, move the Height Rod Arm down.

**Correct way to hold the Height Rod Arm**

**Incorrect way to hold the Height Rod Arm**
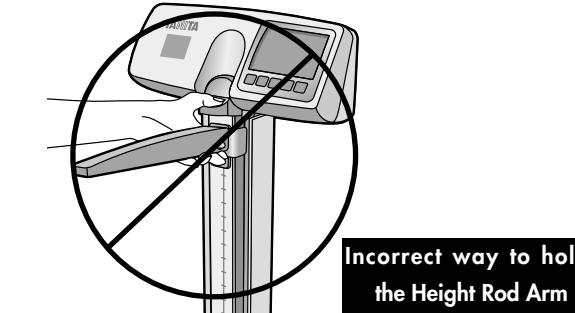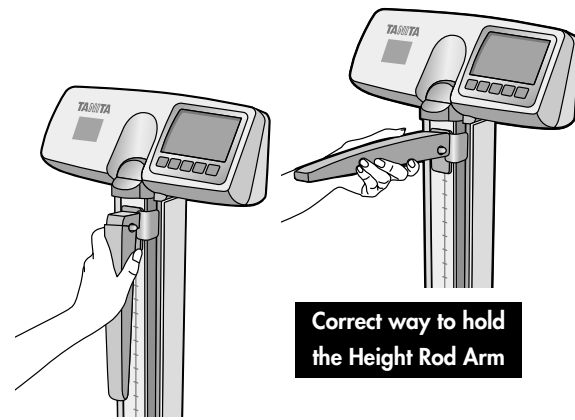
To avoid danger of breaking or coming loose, you must hold the height rod arm securely.

2) **Gently lower the Height Rod Arm until the Height Rod Arm touches the very top of the user's head.**
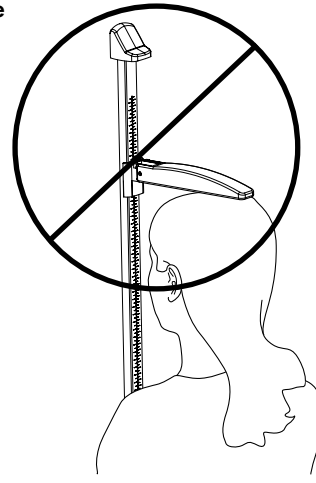
3) **Read the measurement.**

If the subject is taller than 48″ / 120 cm, read the number just above the top of the Upper Pillar Column (see example #1).
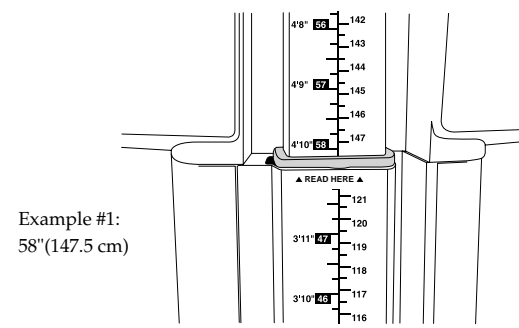
If the subject is shorter than 48″ / 120cm, read the number below the Height Rod Arm (see example #2).
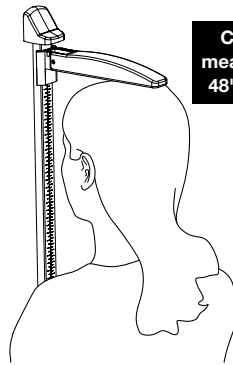
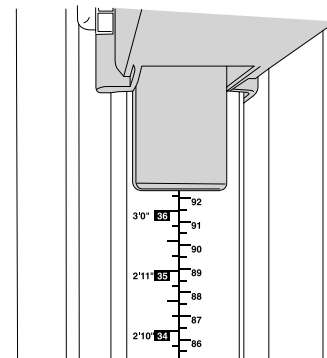**CORRECT way to measure the height of 48″ / 120cm or more**

**INCORRECT way to measure the height of 48″ / 120cm or more**

Example #1:
58"(147.5 cm)

Example #2:
36.25" (92 cm)

**Reading the height measurement of 48″ / 120cm or MORE**

**Reading the height measurement of 48″ / 120cm or LESS**

This section covers the exporting of data from the scale to an external device (e.g. PC) using a RS-232C and USB compliant signal.

⚠ • RS-232C and USB interface are for data OUTPUT ONLY!
• This scale is not capable of receiving instructions from an external device.

## Specifications

| Communications standard | EIA RS-232C compatible | USB |
|---|---|---|
| Communications method | Asynchronous transaction | |
| Signal speed | 9600 baud | |
| Data bit length | 8 bits | |
| Parity | None | |
| Stop bit | 1 bit | |
| Terminator | CR+LF | |

*Note:*
• An RS-232C connector (D sub 9-pin female) and USB connector (B-type 4-pin female) are located on the back of the display unit.
• Please provide your own cables as necessary as none are included.
  RS-232C :Straight D sub 9-pin (male) – D sub 9-pin (female)
  USB     :A-type 4-pin (male) – B-type 4-pin (male)
• Select Switch : Please select which interface you would like to use
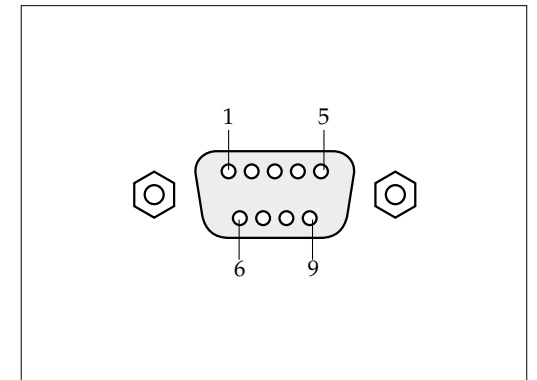
**RS-232C Port**    **RS-232C/USB Select SW**    **USB Port**
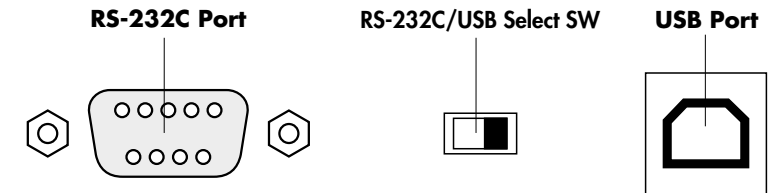
⚠ **Caution** If you want to use the USB output, you must install the necessary driver onto your PC, available to download from *http://www.tanita.com*.

## Signal Line Name and Connection Method

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

## Output data

| Name of item | Header | | Output data (ASCII code) | | Pattern | |
|---|---|---|---|---|---|---|
| | kg mode | lb mode | | | BMI mode | Weight mode |
| Control data | {0 | | Fix to 16 | 2 Bytes fixed | ✓ | ✓ |
| Control data | ˜0 | | Fix to 1 | 1 Byte fixed | ✓ | ✓ |
| Control data | ˜1 | | Fix to 1 | 1 Byte fixed | ✓ | ✓ |
| Control data | ˜2 | | Fix to 1 | 1 Byte fixed | ✓ | ✓ |
| Model | MO | | "WB-3000" | 9 Byte fixed | ✓ | ✓ |
| Height | Hm | Hf | xx.x | 2 – 6 bytes | ✓ | — |
| Weight | Wk | Wp | xxx.x | 3 – 5 bytes | ✓ | ✓ |
| BMI | MI | | xxx.x | 3 – 5 bytes | ✓ | — |
| Checksum | CS | | xx | 2 Bytes fixed | ✓ | ✓ |

*Note:*
- The data are divided with commas (,) for each data.
- The terminator (end of the data) is CR (ASCII code 0DH), LF (ASCII code 0AH).
- The control data for the items 1 – 4 are for expansion.  They are not used presently so the receiving side can ignore them.
- When the measurement unit is select the "lb",all the hight data is converted into "ft-in" and it is output.
- Because of its specifications, the scale will output an irrelevant signal approximately 0.1 second after data output. Make sure you ignore this signal and do not import it.

**[Output example (in the case to lb unit)]**

```
Comma
{ 0 , 1 6 , ~ 0 , 1 , ~ 1 , 1 , ~ 2 , 1 , M O , " W B - 3 0 0 0 " ,
                                                    Model

height        Weight           BMI          Checksum  Terminator
x x . x , W p , x x x . x , M I , x x x . x , C S , x x CR LF
Comma
```
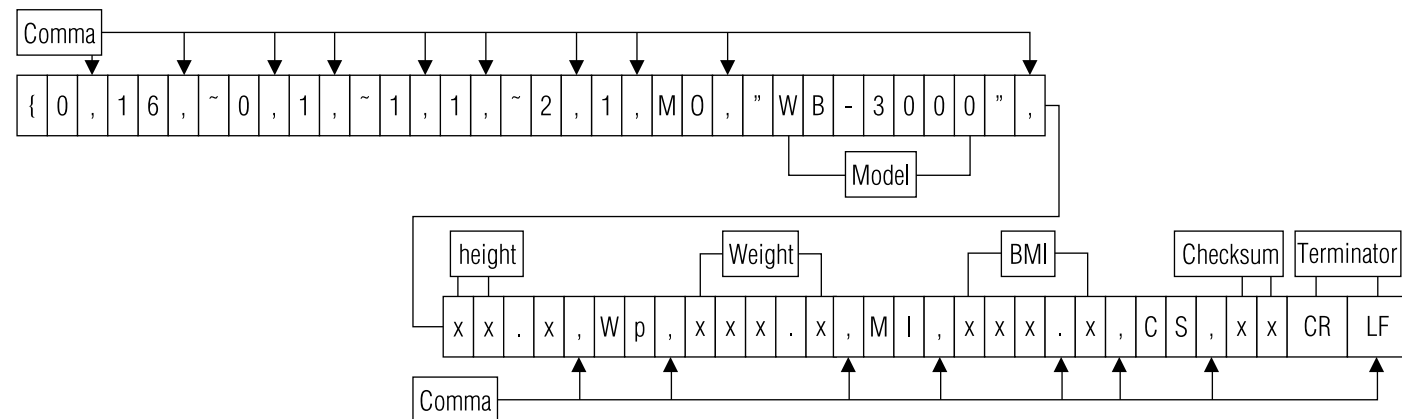
## 12. Specifications

| Model | | | WB-3000 | |
|---|---|---|---|---|
| Weight Measurement | Measurement System | | Strain Gauge Load Cell | |
| | Maximum Capacity / Minimum Graduation | | 440 lb / 0.2lb | 200kg / 0.1kg |
| | Range of Weight | Standard | 0 - 440lb | 0 - 200kg |
| | | Step on | 22 - 440lb | 10 - 200kg |
| Height Measurement | Measurement System | | Mechanical Height Rod | |
| | Range of Height | | 2ft 1in – 7ft | 64cm – 214cm |
| Input Items | Height | | 2ft – 8ft 2in  0.5in increment | 61cm- 250cm  1cm increments |
| Output Items | Display | Weight | 440 lb / 0.2lb | 200kg / 0.1kg |
| | | Height | 2ft – 8ft 2in  0.5in increment | 61cm- 250cm  1cm increments |
| | | BMI | 0.1 increments | |
| Size | Overall | | 20.8 x 15.0 x 54.4 in | 528 x 380 x 1381 mm |
| | Platform | | 15.0 x 15.0 x 2.0 in | 380 x 380 x 50 mm |
| Display | | | Upper 5Digits and Lower 4Digits LCD Height of numerals 1in / 24mm | |
| Output Data Interface | | | RS-232C (D sub 9-pin Male connector)  USB (B-type) | |
| Power Source | | | AC adapter (included) Center Minus | |
| Power Consumption | | | 0.3 W max. | |
| Temperature Range of usage | | | 32°F - 95°F | 0°C - 35°C |
| Weight of Equipment | | | 25.3lb (without batteries) | 11.5kg (without batteries) |
| Rated Power | | | DC 6V 200mA (LR6 - AA Alkaline Battery x 4 included) | |
| Battery Life | | | Approximately 100hours of continuous use when using LR6 (AA Alkaline battery) | |

## 13. Troubleshooting

If you are concerned that the scale may not be functioning correctly, please check the following point before requesting repairs.

| Problem | Check Points |
|---|---|
| Nothing is displayed when ON/ZERO key is pressed. | • Check the connection of the AC adapter jack to the DC jack, and the connection of the AC adapter plug to the wall outlet.<br>• The batteries may be weak. Try an AC adapter or new LR6 (AA) batteries.<br>• Check the terminals of the batteries for contamination |
| "Lo" is displayed. | The batteries are running out. Please replace them immediately or use the AC adapter. |
| Measurement is not accurate. | • Check that all feet of scale are stable and on a hard flat surface, carpeting depth should be kept to a minimum.<br>• After having stepped down from the scale and pressed the ON key, perform the measurement again.<br>• Accurate measurement may be impossible if the product is used where there is excessive vibration.<br>• Try using the product in a different place. |
| The weight does not stabilize | • Are you moving during measurement?<br>• Is the measured weight within the range of weight measurement?<br>• Are you touching the height rod arm, switch, or another part during measurement? |
| "OL" is displayed | • The range of weight (440lb/200kg) is exceeded. |
| "-OL" is displayed | • Was anything placed on the scale before measurement? |
| "Error" is displayed | • Check whether the cable between the platform and display is disconnected, cut, or pinched. |

Eng

USA and Canada

**Federal Communications Commission and Canadian ICES Notice**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules and Canadian ICES-003. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio or television technician for help.

**Modifications**

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Tanita Corporation may void the user's authority to operate the equipment.

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