TANITA®
Monitoring Your Health

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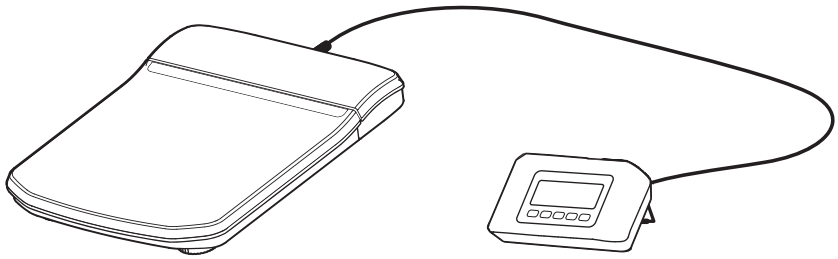
INSTRUCTION MANUAL

ELECTRONIC SCALE

WB-800AS plus

CLASS III
NTEP APPROVED



<Usage Conditions>

Temperature Range for Use	: 41˚F – 95˚F / 5°C – 35°C
Relative Humidity	: 30% – 80% (without condensation)

<Storage Conditions>

Temperature Range of Environment : 14˚F – 122˚F / -10°C – 50°C
Range of Relative Humidity : 10% – 90% (without condensation)
To avoid malfunctions, avoid storing the equipment where there is direct sunlight, significant temperature changes, the risk of dampness, a large amount of dust, in the vicinity of fires, or where there is the risk of receiving vibrations or shocks.

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

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2. Safety Notes

The following outlines 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 the contents to ensure the safe operation of this equipment.

⚠Warning	**Ignoring instructions highlighted with this mark could result in death or severe injury.**
⚠Caution	**Ignoring instructions highlighted with this mark could result in injury or damage to property.**
⃠	**This mark indicates actions that are prohibited.**
❗	**This mark indicates instructions that must always be adhered to.**

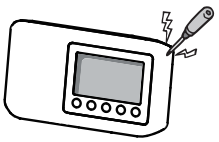
⚠ Warning

Prohibited

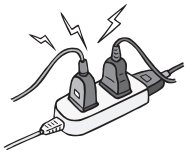
Do not handle the plug with a wet hand.
Such action may result in electric shock, fire, or leakage.

Keep this equipment away from flammable gas and oxygen rich environment.

No modification of this equipment is allowed.
There is a risk of electrocution or injury. Nor can precise analysis be guaranteed.



Do not use a multi-plug adapter.
Doing so may result in fire.



Always…

Use only a correctly wired outlet.
Only genuine cables and equipments are allowed.

⚠Caution

Prohibited

Keep away from water.

Do not jump on the equipment.

Do not insert fingers into gaps and holes.

Do not apply force to the display.
The screen panel may break and cause injury.

Do not hang heavy objects on a wall-mounted display.

Do not pull on a wall-mounted display.

When the display stand is in the open position, do not lean on or step on the display.

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

Always…

Be sure 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.

Be sure to use the included AC adapter.

Unplug the AC cable from the equipment when moving it.

When not in use for a long time, unplug the AC Adapter from the wall socket.

Interpretation of analysis results (e.g. evaluation of measurements and formulation of exercise programes based on results) must be performed by a professional.
Weight loss measures and exercise based on self-analysis could be harmful to you health. Always follow the advice of a qualified professional.

For Accurate Measurements

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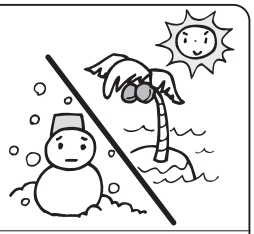
Always…

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 36˚F / 20°C or more.



Ensure the weighing platform is placed on a level and stable surface.

Avoid subjecting the equipment to excessive shocks or vibrations.

Use in a stable location.

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

Scheduled Maintenance

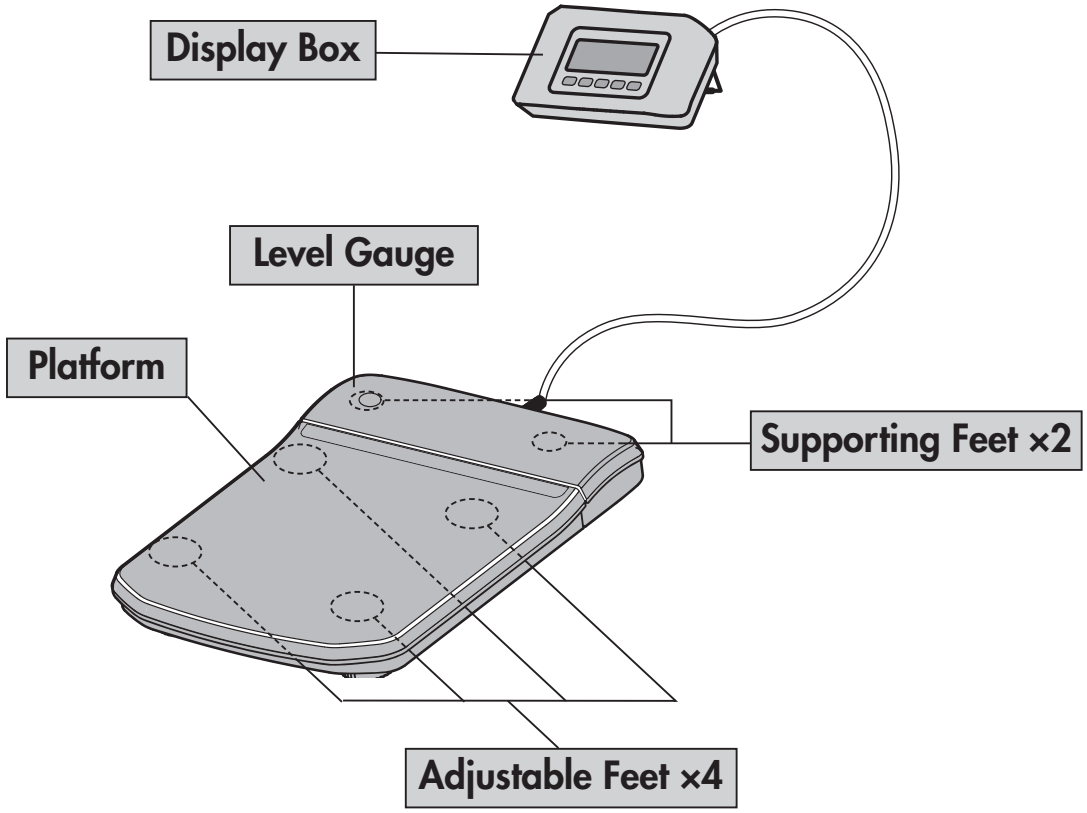
Always…

TANITA recommends that each facility conduct periodic checks of each unit.

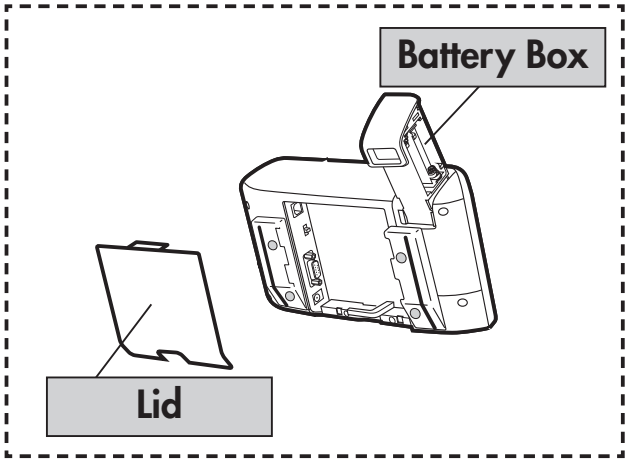
1. Check the following at least daily:
   - The unit is on a stable and level surface ie on a firm flooring, not on a thick carpet
2. Visually inspect the following at least weekly:
   - The display for any damage or contamination
   - All cables, cords, and connector ends for damage or contamination
   - All safety-related labeling for legibility
   - All accessories (sensors, electrodes, etc.) for wear or damage
3. Visually inspect the following at least monthly:
   - Screws on equipment

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.

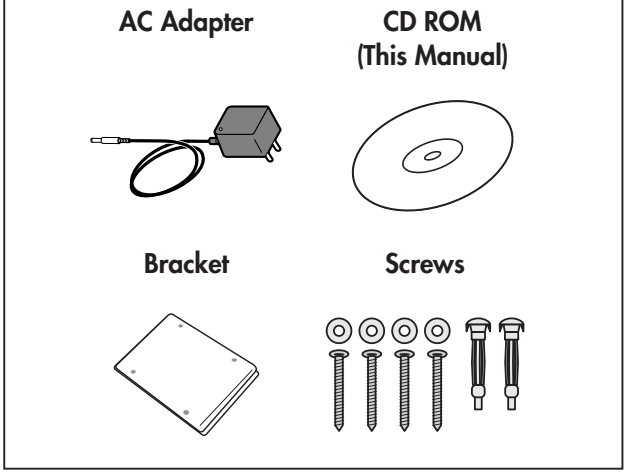
3. Part Names



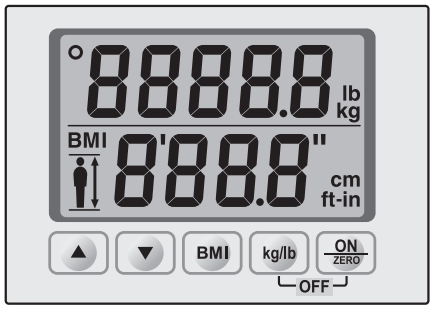
Display Box



Accessories



■ Control Panel



■ Symbols and their Meanings

ON	Display Unit On	⚠	Caution Refer to the attached notes.
ZERO	Zero reset	⊖→	Output
kg/lb	Changing Measurement Units	⎓	Direct current
BMI	Select BMI mode		
▲/▼	Adjust height for BMI		
OFF	Display Unit Off		

4. Functions

■ Automatic Power Off

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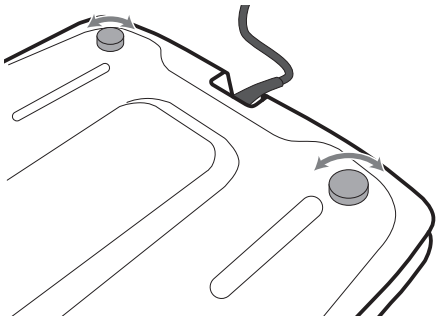
This equipment has an automatic power off function that automatically turns off the power in order to reduce battery consumption.
If the display does not change for 30 seconds, the power will be automatically turned off.

■ Temporarily Disabling Automatic Power Off

This function can be temporarily disabled using the following procedure. When the power is off, hold the ▲ key down and immediately (within 0.5 seconds) start the device by pressing the ON key.
When the power is turned off, the automatic power off function will be enabled again.

5. Set up

■ Flat and stable location



The position of the two adjustable supporting feet on the back of the platform.

To obtain the highest level of accuracy, please make sure that all four (4) feet are touching the floor evenly.
For further accuracy and security, position the two (2) adjustable supporting feet using the knobs shown in the figure on the left until they just make contact with the floor (do not overextend).

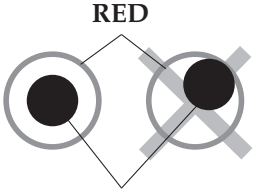
- **Do not position the equipment anywhere that is subject to direct sunlight, near heating equipment, or /directly in the path of an air conditioner outlet.**
- **Do not use it in a location that is subject significant temperature change.**
- **Do not position it in a location that it either damp or subject to high humidity.**

⚠Caution

Put the weighing platform on a flat, level surface.

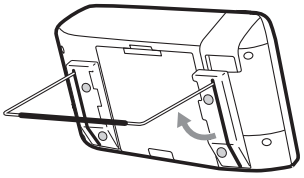
Check the Level Gauge

* For accurate measurement, place the machine as level as possible.
* Rotate the adjustable feet in 4 positions for adjustment so that the bubbles of the level gauge reach the center.



Air bubble
Viewing the level gauge from the top.

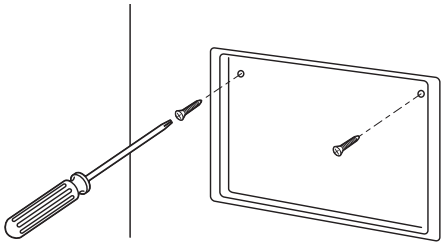
■ When using the stand



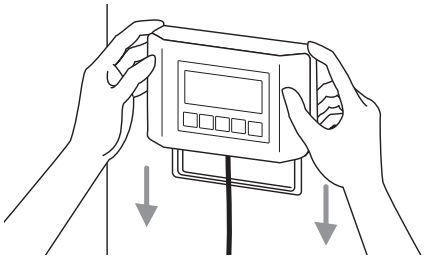
Please pull out the stand at the back of the display box.
When putting away the display box, please insert the stand in the slot on the back of the display box.

■ When installing the display box on the wall

1) Attach bracket to wall using included screws.



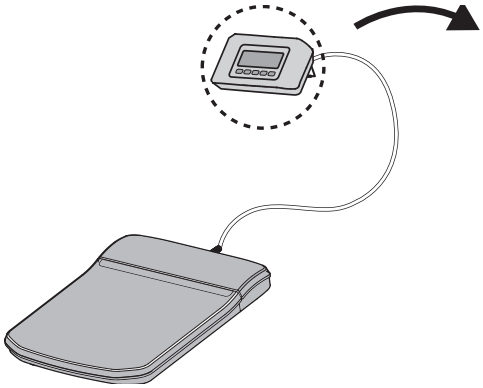
2) Slide display unit onto bracket.



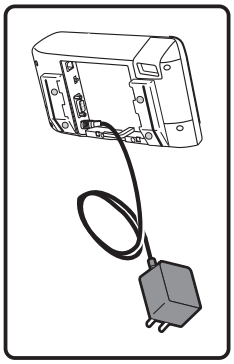
6. Power supply

■ AC adapter

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

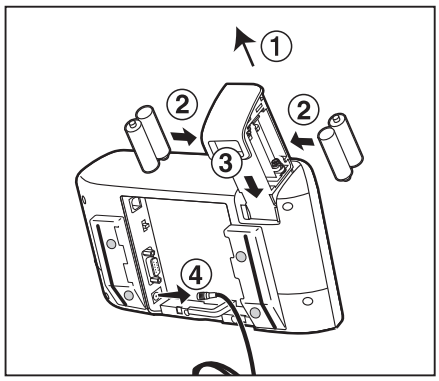


<Back side>



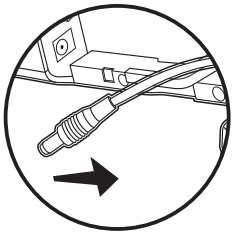
Plug in the AC adapter. Insert the AC adapter jack into the DC Jack on the back of the display box.

■ Batteries



1) Pull up the battery case which is located on top of display.
2) Ensure that the batteries are inserted with correct polarity.
3) Push down the battery case completely.
4) Unplug the AC adapter jack on the back of the display box.

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



⚠Caution

Unplug the AC adapter jack, or the scale won't work.

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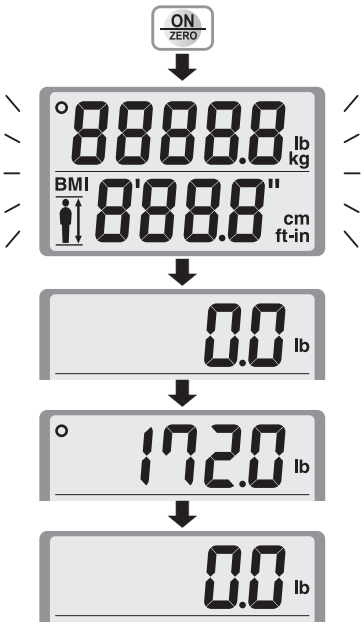
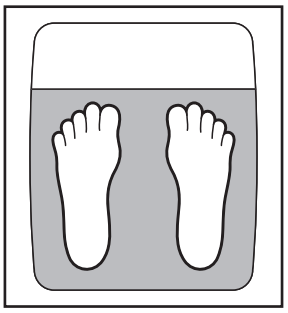
1. Standard Weighing Procedures



1) Turn on the power by pressing the ON ZERO key.

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



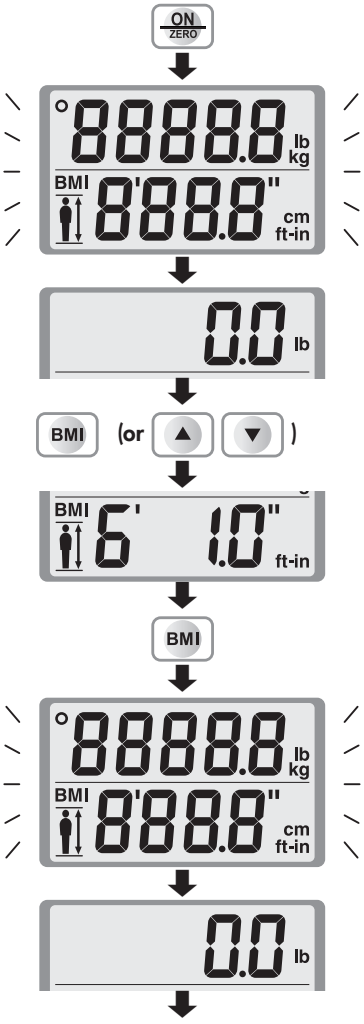
3) The person to be weighed should stand still in the middle of the platform.

4) The weight will be stable and displayed on the display. A beep sound will be heard and "○" 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 after stepping off from the platform.

Note: • Do not press the ON ZERO 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) Press the BMI key (or ▲ ▼). The default height [5ft7.0in / 170cm] will be displayed.

4) Set the height with the ▲ ▼ key.

5) Press the BMI key.

6) All the segments flash, [0.0bl / 0.0kg] is displayed again.

7) The person to be weighed should stand still in the middle of the platform.

8) The weight will be stable and displayed on the display. A beep sound will be heard and "◯" sign will appear in the upper left corner of the display.

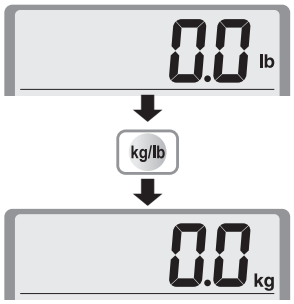
The weight and BMI calculation will then be displayed.

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

9) The scale will automatically shut off after stepping off from the platform.

3. Changing Measurement Units

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



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

Press the kg/lb key.

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

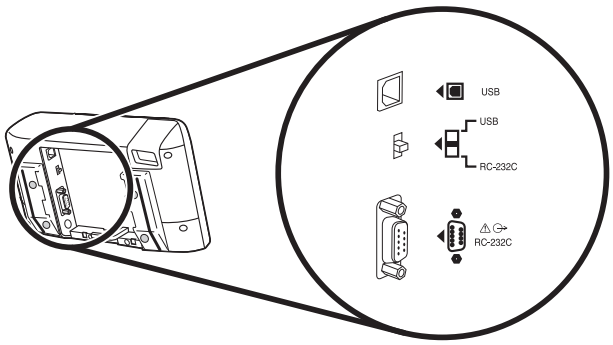
4. Power off

Press the kg/lb key and ON/ZERO key at the same time to turn off.

8. 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

9. Output data format



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.

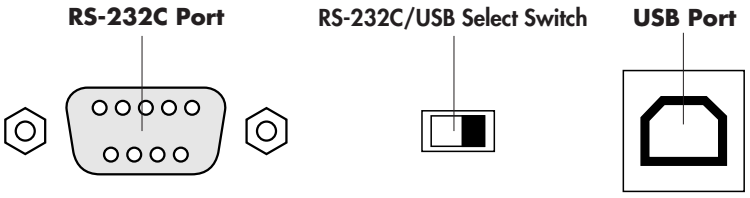
- RS-232C and USB interface are for data OUTPUT ONLY!
- This scale is not capable of receiving instructions from an external device.

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:

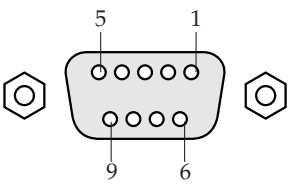
- An RS-232C connector (D sub 9-pin female) and USB connector (B-type 4-pin female) are located on the back of the display unit.
- Please provide your own cables as necessary as none are included.
  RS-232C :Straight D sub 9-pin (male) – D sub 9-pin (female)
  USB :A-type 4-pin (male) – B-type 4-pin (male)
- Select Switch : Please select which interface you would like to use



Caution If you want to use the USB output, you must install the necessary driver on to your PC, available to download from ***http://www.tanita.com***

Signal Line Name and Connection Method

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



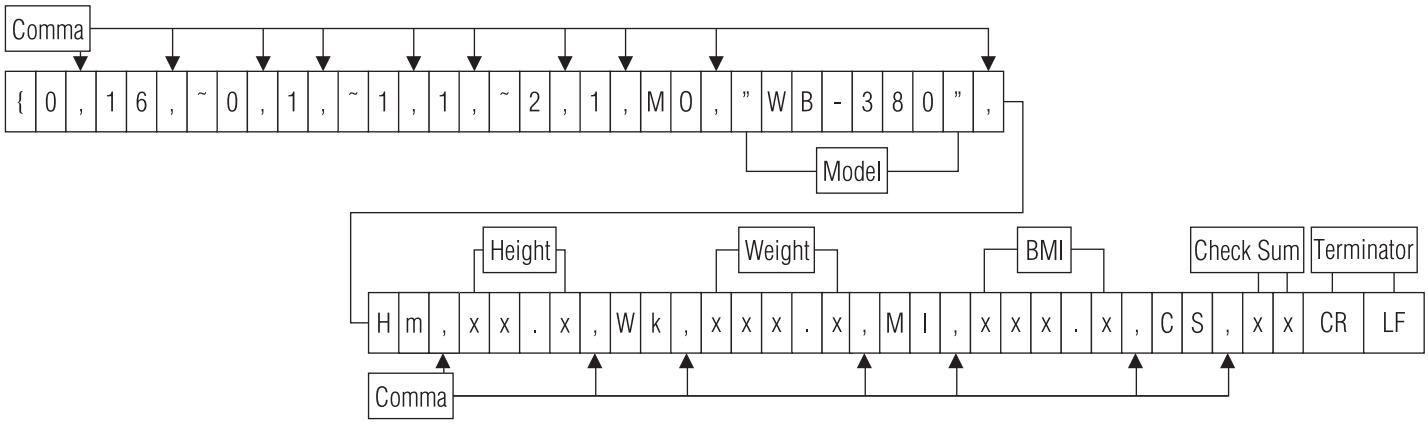
Output data

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-380"	8 Byte fixed	✓	✓
Height	Hm	Hf	xxx.x	x.xx.x 4 – 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.
- 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]



10. Troubleshooting

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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 power outlet. • The batteries may be weak. Try an AC adapter or new LR6 (AA) batteries. • Check the terminals of the batteries for contamination • Batteries ——— Unplug the DC connecter on the back of the display box.
"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. • After having stepped down from the scale and pressed the ON/ZERO key, perform the measurement again. • Accurate measurement may be impossible if the product is used where there is excessive vibration.
The weight does not stabilize	• Are you moving during measurement? • Is the measured weight within the range of weight 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.

11. Specifications

Model			WB-800AS plus	
Weight Measurement	Measurement System		Strain Gauge Load Cell	
	Maximum Capacity / Minimum Graduation		440lb / 0.2lb	200kg / 0.1kg
	Range of Weight	Standard	0 - 440lb	0 - 200kg
		Step on	22 - 440lb	10 - 200kg
Input Items	Height		2ft – 8ft 2in 0.5in increment	61cm- 250cm 1cm increments
Output Items	Display	Weight	440lb / 0.2lb	200kg / 0.1kg
		Height	2ft – 8ft 2in 0.5in increment	61cm- 250cm 1cm increments
		BMI	0.1 increments	
Size	Overall		W15.6 X D20.8 X H4.3 in Total 17.0lb	W395 x D529 x H110 mm Total 7.7kg
	Platform		W15.0 x D15.0 x H2.5 in	W380 x D380 x H64 mm
Display			Upper 5Digits and Lower 4Digits LCD Height of numerals 1in / 24mm	
Output Data Interface			RS-232C (D sub 9-pin Female connector) USB (B-type)	
Power Source			AC adapter (included) Center Minus	
Power Consumption			0.3 W max.	
Rated Power			DC 6V (LR6 - AA Alkaline Battery x 4)	
Temperature Range of usage			41°F - 95°F	5°C - 35°C

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USA and Canada

Federal Communications Commission and Canadian ICES Notice

This equipment has been tested and found to comply with the limits for a Oass B digital device, pursuant to Part 15of 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.

<U.S.A representative>

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FAX: +852-2838-8667
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