

**TANITA®**

Monitoring Your Health

GB

# Professional Baby Scale

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## INSTRUCTION MANUAL

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**BD-815U**



Thank you for purchasing the TANITA digital baby scale.  
For optimum performance and safety, please read this  
manual carefully, and keep it handy for future reference.

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# Safety Notes

## Caution Symbols

Thank you for purchasing this precision crafted Tanita product. 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 affect the precision of measurements.**
- **To prevent fire hazard**  
Use only a correctly wired (120V AC) outlet, and do not use a multiple outlet extension cable.
- **Do not sit on the edge of the scale, jump on it, or bounce on the baby basket, as any resultant fall or slip may cause serious injury.**
- **The baby basket is not designed to accommodate individuals weighing more than 33lb(15kg).**
- **As a safety precaution, infants must not be left unattended on the baby basket.**

**Do not lean the product against the wall where people and objects pass by.**

Someone may touch the product and it may fall down



### 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 stumbling or inaccurate measurement.  
Never jump on the scale, there may be a risk of stumbling and malfunction of the equipment.
- For the BD-815U; Ensure you use the original AC Adapter (MODEL: AD-0920M). Using an AC Adapter other than the original one may cause malfunction.  
Do not insert or remove the plug by the cable.
- Do not place a finger into the gap or hole of this equipment.  
You may get injured.



### Maintenance

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

- Never disassemble or adjust the equipment, as this may cause malfunctions. The equipment should only be inspected in accordance with the regulations in each country.
- When not in use for a long time, unplug the AC Adapter from the wall socket.
- Do not wipe the equipment with corrosive chemicals (benzine, cleaner, etc.). Please use a neutral detergent to clean the equipment.
- Avoid subjecting the equipment to excessive shocks or vibrations.
- When disposing of this unit, please do so in accordance with the prevailing regulations in each country.
- If an unauthorised person attempts to disassemble or repair any of the part, the warranty will become invalid. When the unit malfunctions, please consult your nearest Tanita sales office or agent.
- Do not wash any part of the scale other than the basket with water.

# Safety Notes (continued)

## Instructions for Measurement

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**Please observe the following instructions for accurate measurement.**

- Measurement may not be possible on a surface that is strongly vibrating. In such cases transfer the equipment to a stable surface with little or no vibration.
- In the case to move to a place with a temperature difference of 36°F (20°C) or more, leave it before use for 2 hours or more after moving.
- While taking measurements, please keep any persons using transmitters, such as a cellular phone, away from the unit to avoid causing margin errors.

### <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.**

### <AC Adapter>

<b>Model</b>	AD-0920M
<b>Input</b>	120 VAC 60Hz
<b>Output</b>	9 VDC 200mA

## To measure correctly

**Do not measure at a place where the temperature fluctuates greatly.**

Errors may be observed in the measured value. In the case to move to a place with a temperature difference of 36°F (20°C) or more, leave it before use for 2 hours or more after moving.



- Do not use cellular phones or microwave therapy equipment near this equipment. It may not measure correctly due to equipment malfunction.

## Explanation of terminology

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### • Capacity

This shows the maximum weight that can be measured by the scale.

#### [Example]

In the case of Maximum capacity 33lb (15kg), it can measure up to 33lb (15kg).

\* One exceeding the weighing capacity cannot be measured.

### • d

This shows the amount of one scale mark. In the case of a digital display, this shows the interval of the numeric value to change.

#### [Example]

In the case of Minimum Graduation 0.1oz (0 - 12lb) 0.2oz (12 - 33lb) or 2g (0 - 6kg) 5g (6 - 15kg) the display increases and decreases.

### • Extend Minimum Graduation

Enables changing precision of measurements.

### • Tare

The container, towel, blanket, etc., used when measuring weight is called "tare".

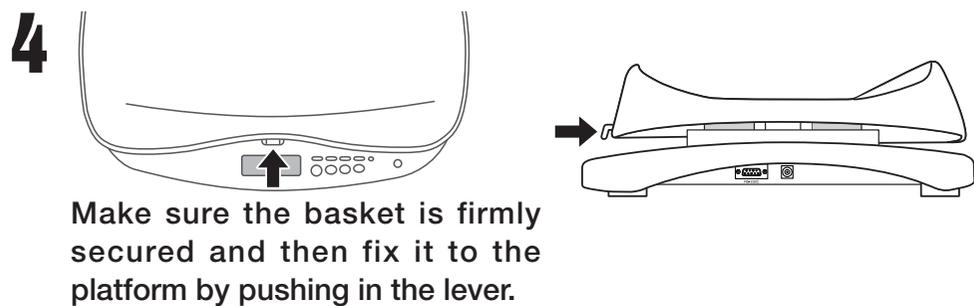
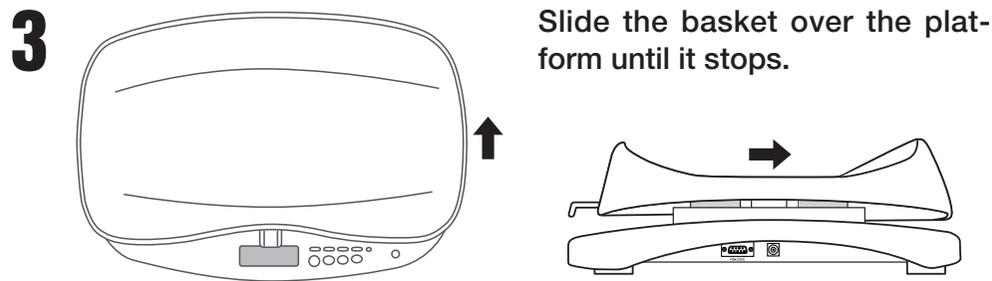
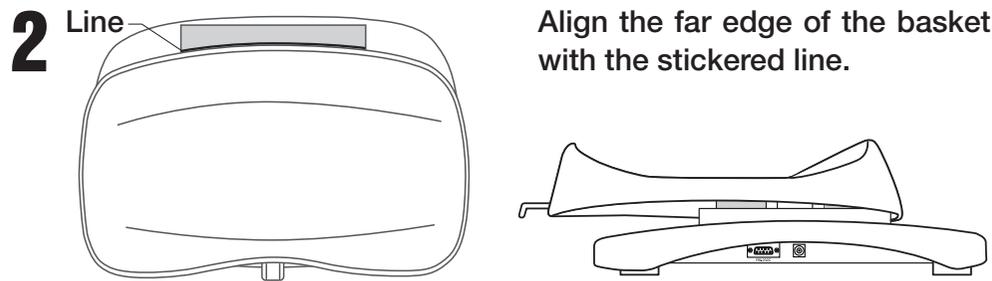
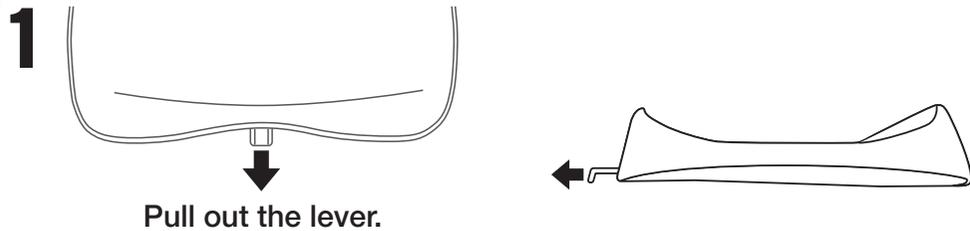
To measure the net-weight after subtracting the weight of the tare is called "tare weighing."

# Baby Basket Attachment & Removal

## A.Attachment

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The baby basket is not attached to the main unit when unpacked.

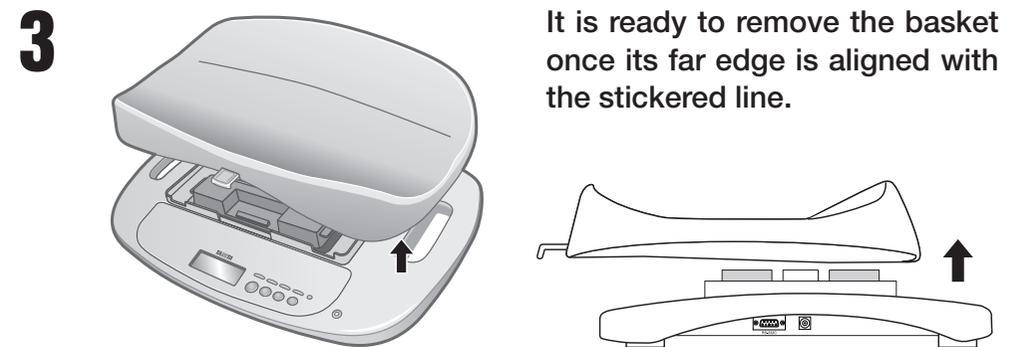
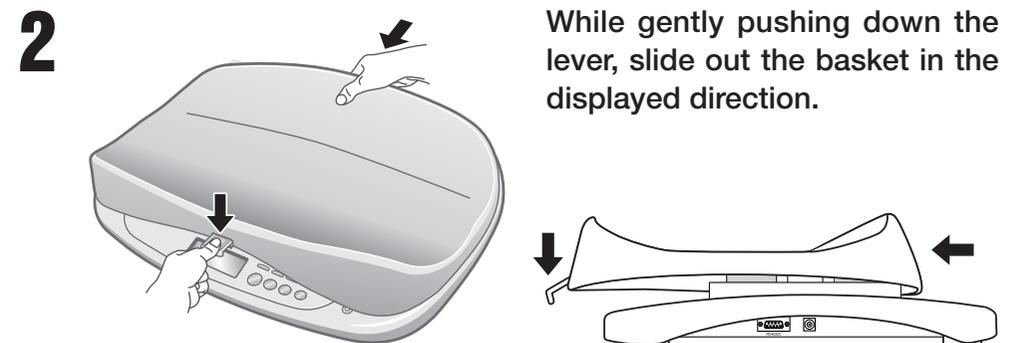
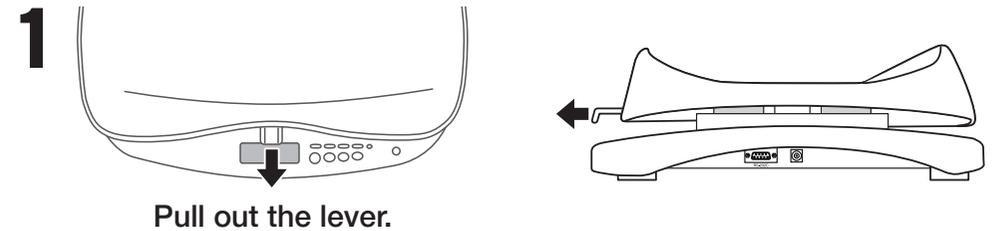


 **Caution** Make sure the basket can't drop.

## B.Removal

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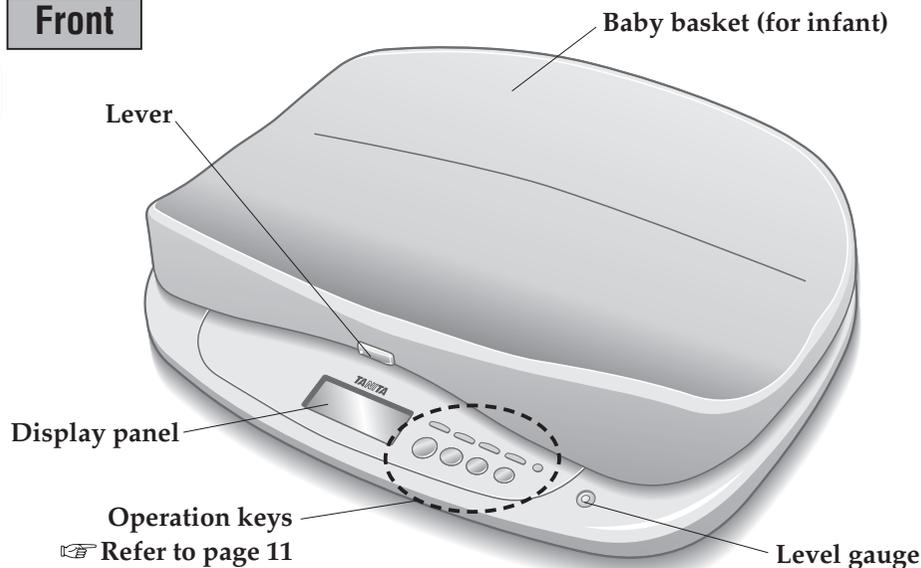
The baby basket can be removed and washed.



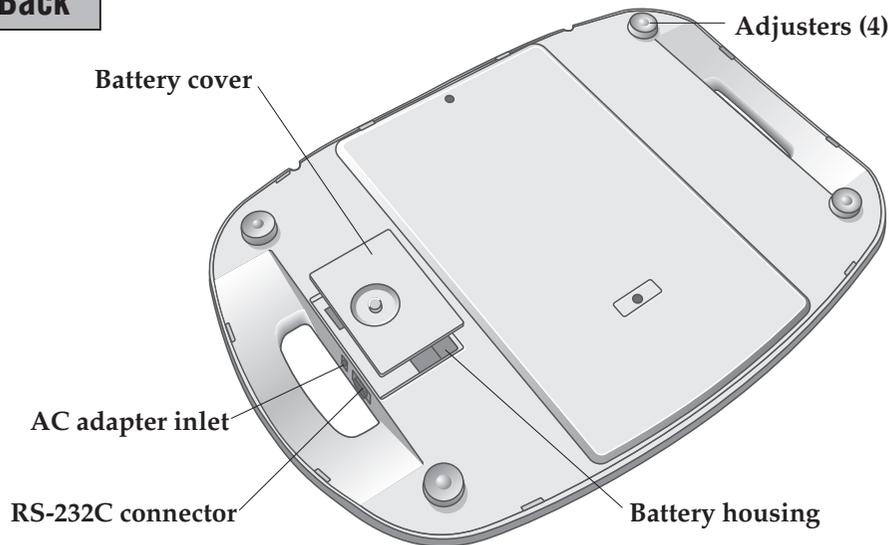
 **Caution** Once the basket is removed, take care not to insert a finger or drop anything into the gap.

# Part Names & Accessories

## Front



## Back



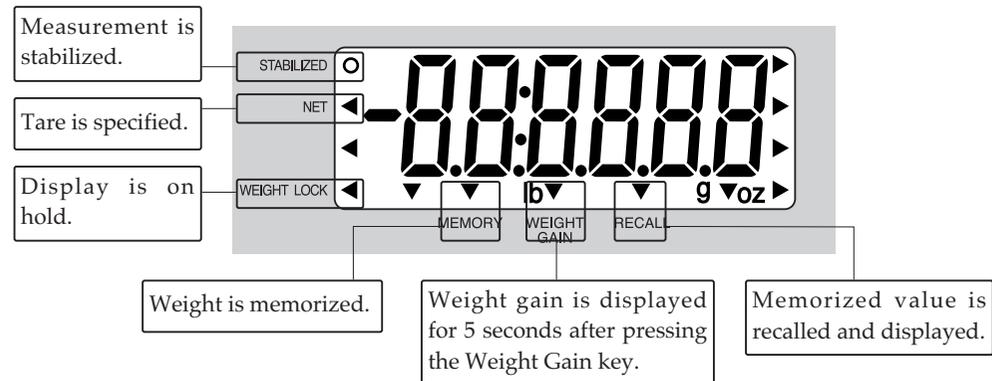
### Confirmation of accessories

- Instruction manual (this book)
- AC adapter (9V)
- AA-size batteries(4)

# Names and Functions of Display Panel and Operation Keys

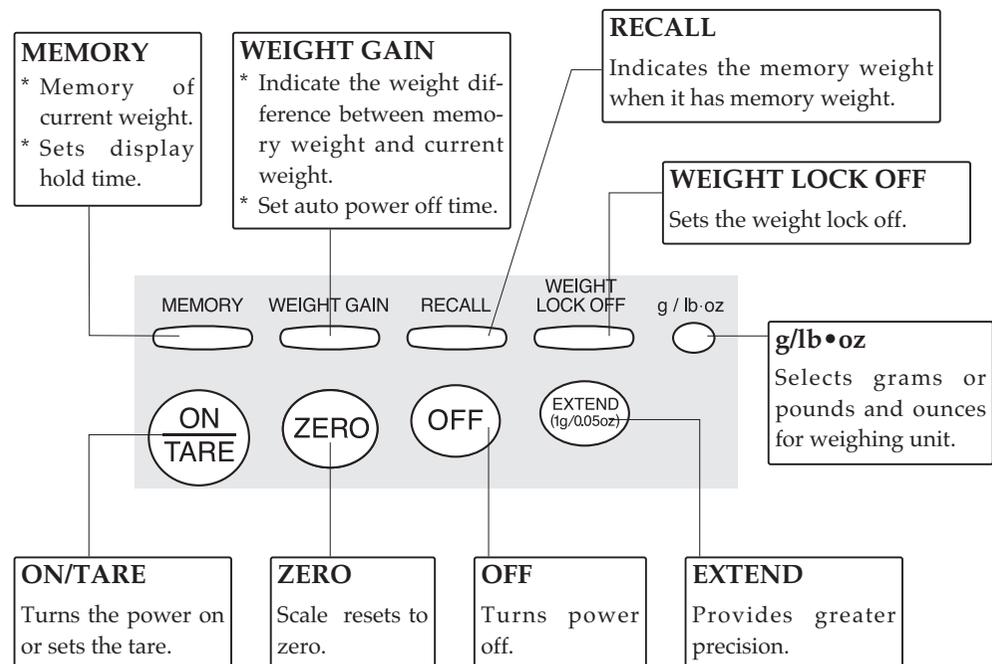
## Display Panel

- \* The pointers (black triangles) indicate active items.
- \* The backlight is on only when the AC adapter is used.
- \* The ▶ mark appears in the digital display next to each of the following operations, indicating which are in effect.



## Operation Keys

- \* Available key make a "beep" sound when pressed.



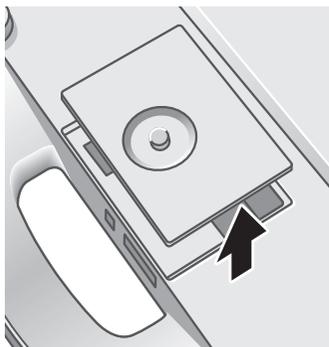
# Power Supply

## Using batteries

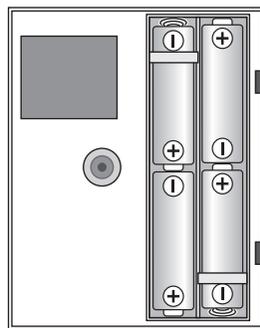
(1) Turn the scale upside-down, and turn the finger screw on the battery cover counter-clockwise (as indicated) to release the screw.



(2) Lift off the battery cover.



(3) Insert new batteries.



• When the batteries start to run low, **Lo** appears on the display panel as a warning.

All (four) batteries should be immediately replaced with new ones at the same time.

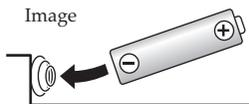
Note) Do not use a combination of alkaline and manganese batteries, as such an arrangement may result in equipment failure.

Note) Rechargeable batteries are NOT recommended.

• A set of standard batteries should last about one year (assuming four readings a day).

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

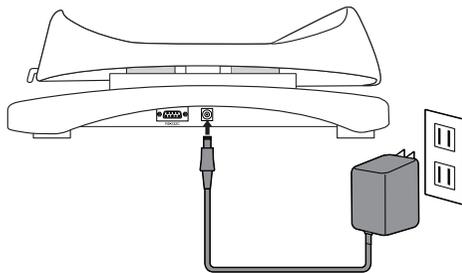
Image



## Using the AC adapter

(1) Insert the AC adapter jack into the AC adapter inlet on the right side of the main unit.

(2) Plug the AC adapter into the power outlet.



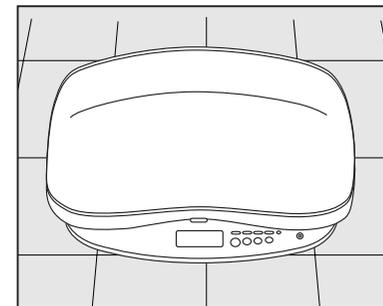
### Caution

This equipment must be used with the included AC adapter.

# How to Set Up Correctly

Use the scale in a firm, flat and stable location.

- 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 to significant temperature change.
- Do not position it anywhere that is either damp or subject to high humidity.
- After positioning the scale, pick up the baby basket from both sides to confirm that the basket is not easily removed before use.
- Ensure that the lever is pushed in.



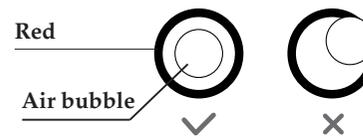
## Level gauge Check

- Place the scale on a flat surface to ensure accurate measurement.
- Turn the four adjusters such that the air bubble in the level guide is positioned exactly in the center. Confirm that all four adjusters are in contact with the surface.



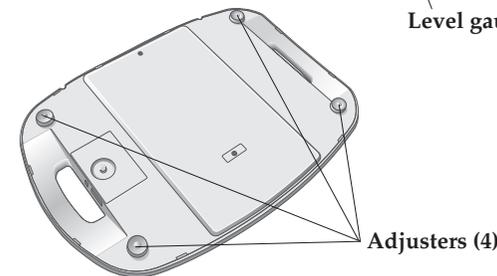
Level gauge

<View from above>



Red

Air bubble



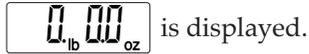
Adjusters (4)

# How to Use the Scale

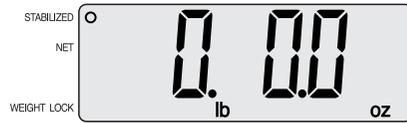
## General measurement

**1** Press the  key to turn on the power.

After flashing the display.



is displayed.

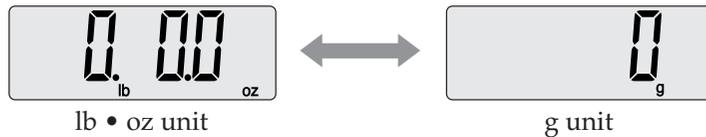


< Example of the lb • oz display >

**2** Press the  key to select the unit.

The display alternates between the two units by pressing the key.

\* Unit selection can be made valid only when "0" is displayed.



lb • oz unit

g unit

### Note

- Press the  key to cancel measurements or turn off the display.
- The extended display function cannot be used if "Hold Time" is canceled, or if the "Recall" or "Weight Gain" is displayed.

## When tare is not specified

**1** Place the baby on the baby basket.

Once the scale stabilizes and the weight is confirmed, stabilized (○) and weight lock (◀) will appear. (Beep sound)

### ⚠ Measurement instructions

- A warning sound beeps if a baby is placed on the basket before  is displayed. If it happens, remove the baby from the basket.



**2** After measurement, remove the baby from the baby basket.

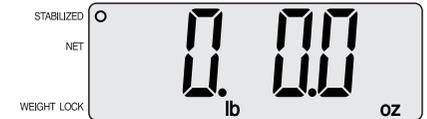
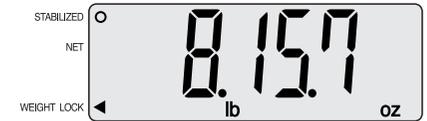
If the display hold time has been set, the measurement remains on display for the set time. The display can be reset to



at any time by pressing the



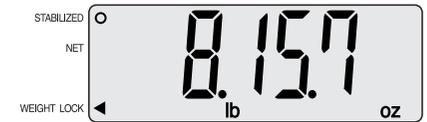
key.



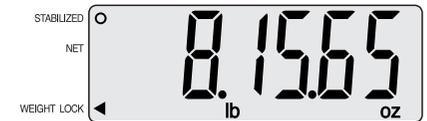
## Extended Display Function

When the  key is pressed while the display is on hold, the weight is displayed 0.05oz (1g) units for as long as the key remains pressed.

\* The extended display function cannot be used if "Hold Time" is canceled, or if the "Recall" or "Weight Gain" is displayed.



Keep pressing



Release



By releasing the  key simultaneously return to the previous display.

# How to Use the Scale (continued)

## Tare weighing function

After turning on the power, the bath towel, diaper, blanket etc. is deducted by pressing  key. Then, the baby's actual (i.e. net) weight (excluding the weight of the towel, diaper, etc.) can be measured.

- 1 Place the bath towel or blanket on the scale.

The weight of the bath towel is displayed.



- 2 Press the  key.

(Beep sound)

 is displayed, and the pointer beside NET is shown. (Beep sound)



- 3 Place the baby on the baby basket.

The net weight of the baby (excluding the weight of the bath towel, etc.) is displayed. (Beep sound)



### Caution

- Tare weighing is possible only within the maximum tare weight 4lb (2kg).

- 4 End of measurement.  
Remove the baby from the baby basket.

When Hold Time is set, the measurement is retained for the set time, after which the display resets to .



## Canceling the tare function

- 1 Remove the tare item(s) from the basket.



- 2 Press the  key with nothing on the basket.

(Beep sound)

The tare function is canceled and

 is displayed.



# Memory Function for Measured Values

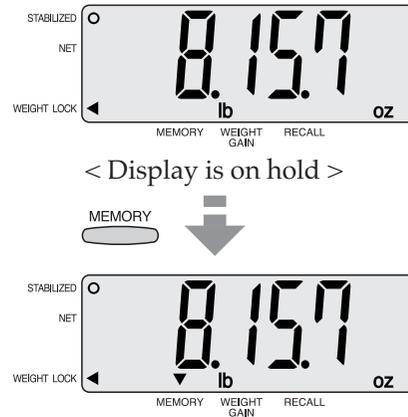
## Memory Function

When the **MEMORY** key is pressed while the display is on hold, the displayed value is memorized.

- 1 Press the **MEMORY** key. (Beep sound)

\* When the previous reading is memorized, the "Memory" pointer is shown.

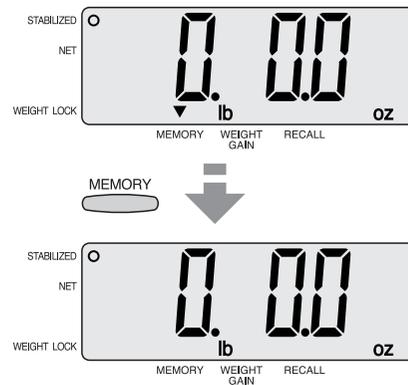
Pressing the **MEMORY** key overwrites the existing record with the currently displayed value as the new memorized value while the display is on hold.



## Memory cancellation

- 1 Press the **MEMORY** key while **0.00** is displayed.

The memorized value is deleted, and the "Memory" pointer disappears.



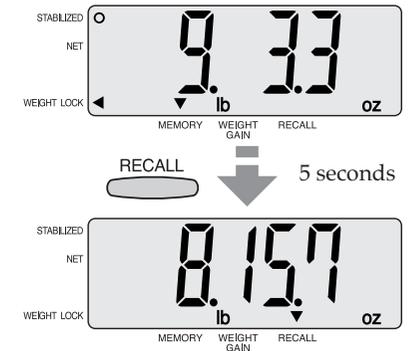
## Memory Value "Recall" Method

This function is used to check the value memorized previously.

- 1 Press the **RECALL** key. (Beep sound)

The value memorized previously is shown for 5 seconds.

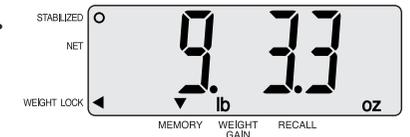
\* This key is valid only when this scale has a memorized weight.



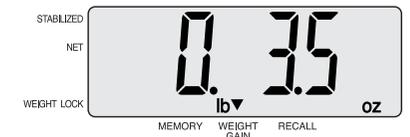
## Display Weight Gain

"Memorize" the weight before breastfeeding, and then take another measurement after breastfeeding. The increase is calculated automatically, by pressing weight gain.

- 1 Place the baby on the baby basket. (Beep sound)



- 2 Press the **WEIGHT GAIN** key. (Beep sound)  
"The currently displayed value - memorized value" is displayed as the weight gain (breastfeeding amount) for 5 seconds.



\* If the new reading (after breastfeeding) is less than the memorized value (before breastfeeding), a minus sign (-) is displayed.

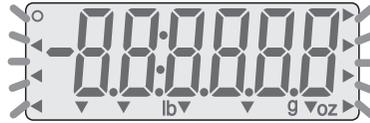
### ⚠ Caution

- When checking the weight gain for another baby, be sure to memorize his/her weight before measuring the weight gain. Each baby's weight must be recorded before and after breastfeeding for accurate measurement of the breastfeeding amount.

# Various Setting Methods

Three types of setting, namely "Display Hold Time" and "Auto Power Off Time" can be used on this scale.

**1** Press  key. (Beep sound)



**2** Press  key while the screen is flashing. (Beep sound)



## Display Hold Time

You can set certain seconds to keep the measurement on the display after removing the baby.

**3** Press  key. (Beep sound)

The hold time is shown (the default is 10 seconds), and the display changed by pressing this key.

\* The hold times that can be set are 10 seconds, 20 seconds, 30 seconds, or -- (None).  
-- (None) means the hold function is deactivated.



**4** To complete to set the hold time, press  again. (Beep sound)



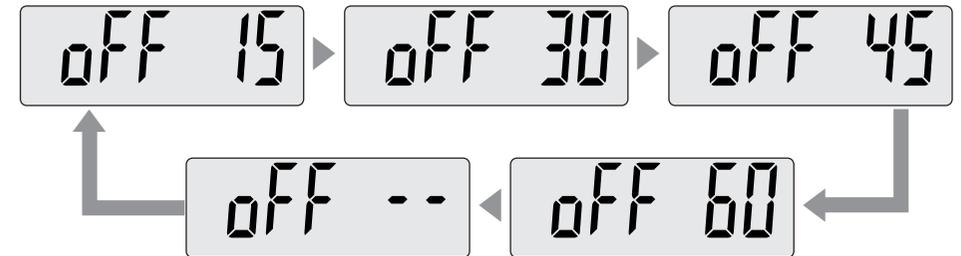
## Auto Power Off Time

The "Auto Power Off Time" setting automatically turns off the power when the scale is unused for the specified length of time.

**3** Press  key. (Beep sound)

The auto power off time is shown (the default is 15 minutes), and changed by, pressing this key.

\* The auto power off times can be set are 15 minutes, 30 minutes, 45 minutes, 60 minutes, or -- (None).  
--(None) means that the auto power off function is deactivated.



**4** To complete to set the auto power off time, press  again.

(Beep sound)

To save and complete that setting.



# Output Data Format

## Explanation for RS-232C-compliant output

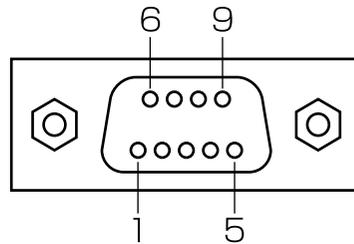
This explanation is for the interface to output the readings from the Digital Baby-Scale BD-815U to external equipment (e.g. PC) as a RS-232C-compliant signal.

## Specifications

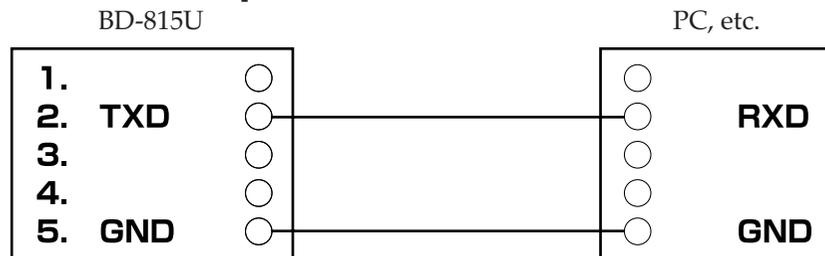
Communication standard	EIA RS-232C
Communication method	Asynchronous
Signal speed	9,600bps
Data bit length	8bit
Parity	NONE
Stop bit	1bit
Terminator	CR+LF
Flow control	None

## Signal line name and connection method

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



## Connection example



## Grams (g) mode (transmission data)

Transmission data is output immediately after measurement regardless 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.

### A. 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	"XXXXXX"	8-byte fixed length ("BD-815")
Body weight	Wg	XXXXX	3~5 bytes variable length (unit: g)

```

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
{ 0 , 1 6 , ~ 0 , 1 , M O , " B D - 8 1 5 " , W g , 3
28 29 30 31 32
9 7 2 CR LF
    
```

### B. When the Weight Gain key is pressed

Item	Header	Output data (ASCII code)	Details
Weight gain	Gg	XXXXXX	1~6 bytes variable length (unit: g)
Memorized weight	Rg	XXXXX	3~5 bytes variable length (unit: g)

```

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
G g 5 , 1 2 0 , R g , 2 8 6 CR LF
    
```

### C. When the Recall key is pressed

Item	Header	Output data (ASCII code)	Details
Memorized weight	Rg	XXXXX	3~5 bytes variable length (unit: g)

```

1 2 3 4 5 6 7 8 9
R g , 3 8 6 8 CR LF
    
```

## Note

- Commas (,) are used to separate data.
- Terminator (end of data) is CR (ASCII code: 0DH), LF (ASCII code: 0AH).

# Output Data Format (continued)

## Pounds/ounces (lb•oz) mode (transmission data)

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

### A. 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	"XXXXXX"	8-byte fixed length ("BD-815")
Body weight	Wo	XX.XX.X	5~7 bytes variable length (unit: lb•oz)

```

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
{ 0 , 1 6 , ~ 0 , 1 , M O , " B D - 8 1 5 " , W o , 9
28 29 30 31 32 33
. 3 . 3 CR LF
    
```

### B. When the Weight Gain key is pressed

Item	Header	Output data (ASCII code)	Details
Weight gain	Go	XXX.XX.X	5~8 bytes variable length (unit: lb•oz)
Memorized weight	Ro	XX.XX.X	5~7 bytes variable length (unit: lb•oz)

```

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G o , 0 . 3 . 5 , R o , 8 . 1 5 . 7 CR LF
    
```

### C. When the Recall key is pressed

Item	Header	Output data (ASCII code)	Details
Memorized weight	Ro	XX.XX.X	5~7 bytes variable length (unit: lb•oz)

```

1 2 3 4 5 6 7 8 9 10 11
R o , 8 . 1 5 . 7 CR LF
    
```

#### Note

- Commas (,) are used to separate data.
- Terminator (end of data) is CR (ASCII code: 0DH), LF (ASCII code: 0AH).

## Troubleshooting

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

GB

Problem	Check points	Page
Nothing is displayed when the  key is pressed.	<ul style="list-style-type: none"> <li>Have the batteries been removed, or has the AC adapter been unplugged?</li> <li>Are the batteries running low?</li> <li>Is anything stuck to the terminals of the batteries?</li> </ul>	P.12
 is displayed.	<ul style="list-style-type: none"> <li>The batteries are running out. Please replace them immediately or use the AC adapter.</li> </ul>	P.12
After the power is turned on,  is displayed, and an alarm sounds.	<ul style="list-style-type: none"> <li>Is any pressure being applied to the baby basket when the power is turned on?</li> <li>Has basket been removed?</li> </ul>	P.14
 is shown during measurement.	<ul style="list-style-type: none"> <li>The maximum measurable weight capacity for the scale (33lb / 15 kg) is exceeded.</li> </ul>	P.7

## Specifications

GB

Model	BD-815U	
Capacity	33 lb (15000g)	
d (division)	0.1oz(0-12lb) 2g (0-6000g)	0.2oz(12-33lb) 5g (6000-15000g)
Maximum tare	4lb (2000g)	
Extended calibration (uncertified)	0.05oz (1g)	
Display panel	Backlit LCD (Backlight is on only when the AC adapter is used)	
External interface	RS-232C (D-sub 9-pin female connector), unidirectional output	
Power supply	Input: AC 120 V (60 Hz) Output: DC 9 V / 200mA	
Regular voltage	DC 6 V (using the batteries) DC 9 V (using the AC adapter)	
Power consumption	0.12 W or less (using the batteries) 0.35 W or less (using the AC adapter)	
Consumption current	20mA (using the batteries) 38mA (using the AC adapter)	
Operating temperature	41°F - 95°F (5°C - 35°C)	
Storage temperature	14°F - 122°F (-10°C - 50°C)	
Overall dimensions	D16.1×W23.6×H6.2in (D409×W600×H157mm)	
Main unit mass	Approx. 10.1lb(4.6kg)	
Main material	ABS resin	
Made in	Japan	



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**TANITA®**

**TANITA Corporation**

14-2,1-chome, Maeno-cho, Itabashi-ku  
Tokyo, Japan  
Tel: (03)3968-2123 / (03)3968-7048 Fax: (03)3967-3766

**TANITA Corporation of America, inc.**

2625 South Clearbrook Drive  
Arlington Heights, Illinois 60005 U.S.A.  
Tel : 847-640-9241  
Fax : 847-640-9261  
<http://www.tanita.com>

**TANITA Health Equipment H.K.LTD.**

Unit 301-303 3/F Wing On Plaza,  
62 Mody Road, Tsimshatsui East,  
Kowloon, Hong Kong  
Tel : +852-2838-7111  
Fax : +852-2838-8667

**TANITA Europe GmbH**

Dresdener Strasse 25  
D-71065 Sindelfingen,  
Germany  
Tel : 07031-6189-6  
Fax : 07031-6189-71  
<http://www.tanita.de>

**TANITA UK LTD.**

The Barn, Philpots Close,  
Yiewsley, Middlesex,  
UB7 7RY, United Kingdom  
Tel : 01895-438577  
Fax : 01895-438511  
<http://www.tanita.co.uk>

**TANITA France S.A.S**

Villa Labrouste  
68 Boulevard Bourdon,  
92200 Neuilly-Sur-Seine,  
France  
Tel : 01 55 24 99 99  
Fax : 01 55 24 98 68  
<http://www.tanita.fr>