



PRECISION BALANCE

BFT-1601 BBAL-103 BBAL-104 BFT-1604 BFT-1605 BFT-1606

INDEX

1. Know your balance	2
2. Specification	3
3. Features	4
4. Unpacking the balance	4
5. Calibration of the balance	5
6. Locating the balance	5
7. Setting Up The Balance	6
7.1 Assembling the balance	6
7.2 Levelling the balance	7
8. Operation Settings	7
8.1 Sensitivity Setting	8
8.2 Speed Setting	9
8.3 Weighing Unit Setting	9
8.4 Counting Function	10
9. Fault Judgement	11
10. Data Output	12

1. Know your balance

Thank you for selecting the Precision Balance.

This Instruction Manual will guide you of the installation, accessories, trouble-shooting, after sales service information, general maintenance of the balance, etc. it will also guide you through the various applications.

Please read this Manual thoroughly before starting the operations. If you need any clarifications, feel free to contact us.

The balances are ideal for laboratory and general purpose weighing. The balances can also be used for some advanced weighing functions.

2. Specification

Model	Range	Division	Repeatability	Linearity	Pan Size
BFT-1606	1200g	1mg	3mg	3mg	Ø 100mm
BFT-1605	1000g	1mg	3mg	3mg	Ø 100mm
BFT-1604	600g	1mg	3mg	3mg	Ø 80mm
BBAL-104	500g	1mg	3mg	3mg	Ø 80mm
BBAL-103	300g	1mg	3mg	3mg	Ø 80mm
BFT-1601	200g	1mg	3mg	3mg	Ø 80mm

Table 1

Model	BFT-1601	BBAL-103	BBAL-104	BFT-1604	BFT-1605
Range	200g	300g	500g	600g	1000g
Division	1mg				
Repeatability	3mg				
Linearity	3mg				
Resp. Time	≤ 4 Sec.				
Pan Size	Ø80mm/100mm				
Tare Range	Full				
Interface	RS-232 bi-directional				
Overall Dimensions	340 x 215 x 350mm				
Operating temperature	+10°C to 40°C				

Power Supply	External Power Adapter as standard (Input Voltage 220 V)
Net Weight	7.5 kg

Table 2

3. Features

Stainless Steel Pan
 Super bright LCD display with backlight
 RS232 Interface
 Mains adapter supplied as standard
 Windshield supplied as standard
 Height adjustable feet
 Auto Calibration
 Selectable measure units: mg, g, oz, ct
 Memory for accumulated time
 Weighing function
 Net weight / tare
 Below balance weighing Piece counting

4. Unpacking the balance

Remove the balance from the packing by carefully lifting it out of the box. Inside the box you will find everything needed to start using the balance.

5. Calibration of the balance

The balance needs calibration when it is not accurate, the steps are:
 Keep the balance in a stable environment and on a stable table, Warm up the balance for more than 1 hour.
 Press the "CAL" key, and it will show and shine: CAL-XXX.XXXX, put on the same value weight. Then the value will keep stable.
 Then there show the value of the weight, then move away weight.
 Calibration finish.

6. Locating the balance

The balance should not be placed in a location that will reduce the accuracy.

Avoid extremes of temperature. Do not place it in direct sunlight or near air conditioning vents.

Avoid unsuitable tables. The table or floor must be rigid and not vibrate.

Avoid unstable power sources. Do not use near large users of electricity such as welding equipment or large motors.

Do not place near vibrating machinery.

Avoid high humidity that might cause condensation. Avoid direct contact with water. Do not spray or immerse the balances in water.

Avoid air movement such as from fans or opening doors. Do not place near open windows or air-conditioning vents.

Keep the balance clean. Do not stack material on the balances when they are not in use.

7. Setting Up The Balance

7.1 Assembling the balance

Locate balance on solid surface, free from vibration

Open the sliding door and gently place the stainless steel top.

Level balance using the adjustable feet and the bubble level

Connect the power to the balance

For best performance, let the balance warm up for 30-60 min. and calibrate before using

7.2 Levelling the balance

After placing the balance in a suitable place, level it by using the bubble level. To level the balance turn the two adjustable feet at the rear of the balance until the bubble in the bubble level is centred.

8. Operation Settings

8.1 Sensitivity Setting

Keep pressing ON, when "Stab" is shown in the display,. Then operation as blow:



Poorest Sensitivity



Poor Sensitivity



Normal Sensitivity



High Sensitivity

press →0/T← to save setting

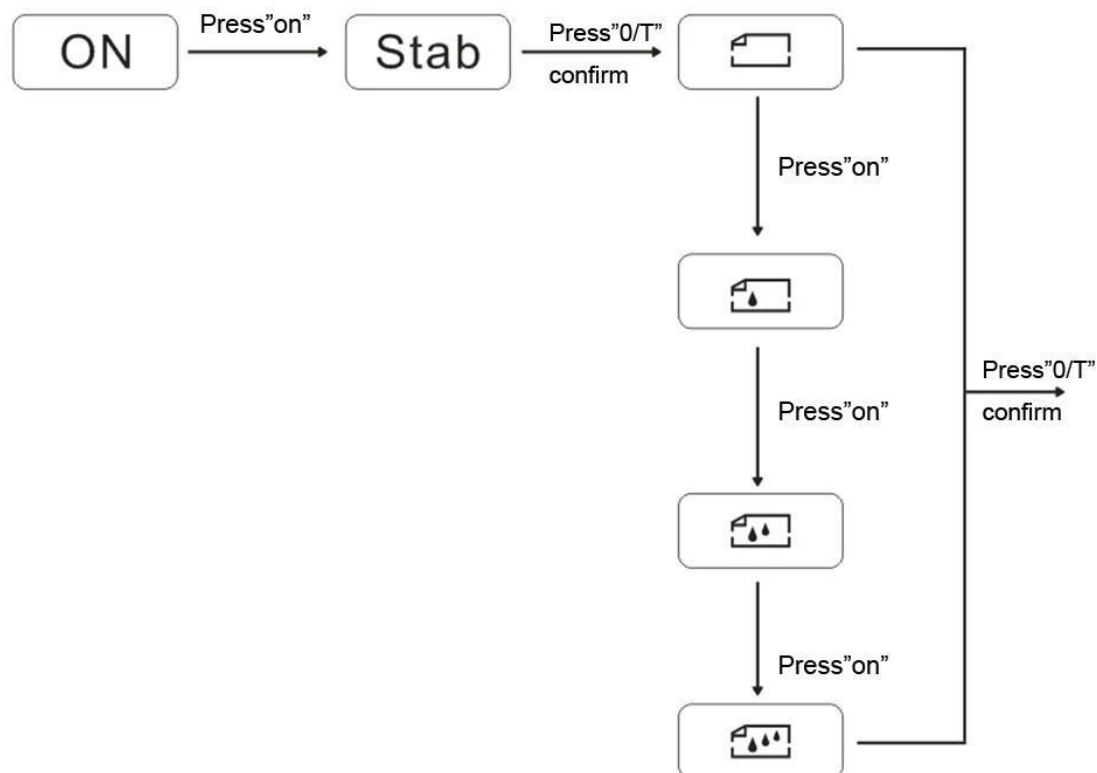


Figure 1

8.2 Speed Setting

Keep pressing ON, when "speed" will show in the display,

 Highest Speed

 High Speed

 Normal Speed

 Low Speed

press →0/T← to save setting

8.3 Weighing Unit Setting

Keep pressing ON, when Unit is shown ,Then operation as blow:

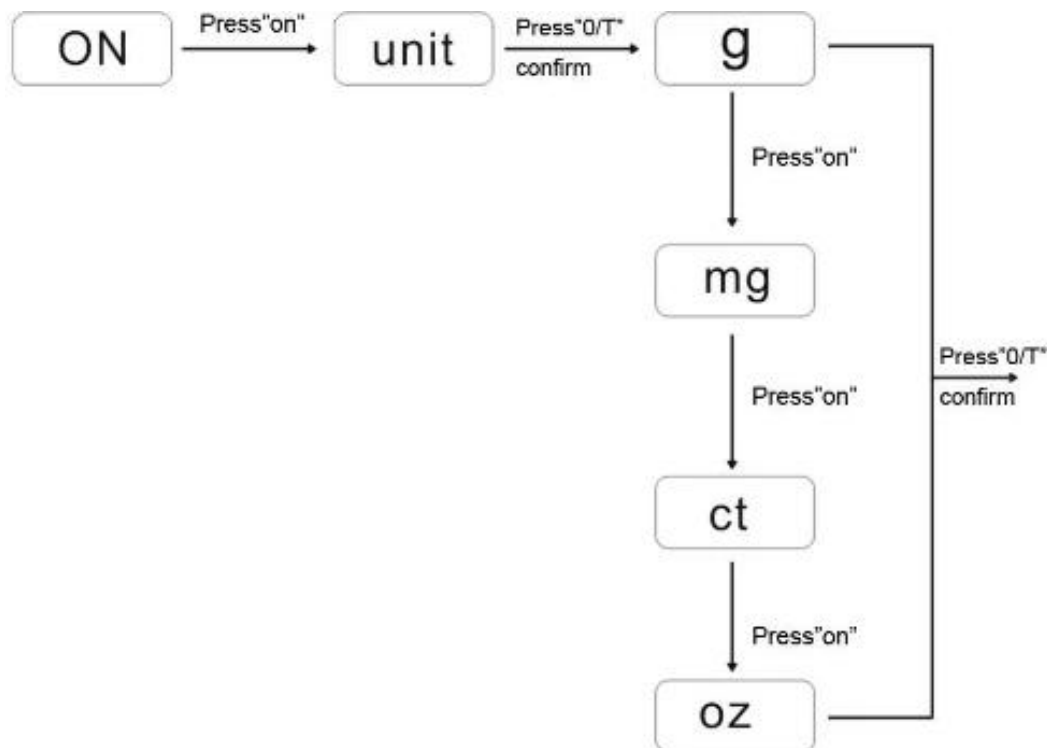


Figure 2

8.4 Counting Function

There are counting functions in the balance, and you can use this to count the quantity. And please keep the products the same weight, and the minimum weight must be $\geq 0.5\text{mg}$.

The details operation as blow:

1. Press "ON"key , enter the menuthen press "ON"key,until it show" COU";



Figure 3

2. Press"0/T"to enter the counting function,it show" COU 5pcs";



Figure 4

3. Press"ON"choose the quantity for sample,and put on the same weight,press"0/T"enter:



Figure 5

4. It will show the number after COU,then you can begin the counting



Figure 6

5. After the counting press "ON" and choose "weight, press "0/T" back to the weighing .



Figure 7

9. Fault Judgement

If you come across any problem, you can check it by yourself and find the reasons.

FAULT	REASON	EXCLUDE
No display	Not connected to the power supply; Fuse is broken; Power transformer damage;	Plug in the power line; Replace the fuse; Replacement of power transformer; Contact factory
Weighing unstable	Bad working conditions; The wind screen is open; Something between the table and balance; The power unstable; Weighing unstable;	Keep the environment stable, close the windows and doors; Close the glass door; Take away the things; Connect the stable power;
The weighing digits is wrong	The balance is not calibration. Not tear before weighing. No adjust the level.	Calibration. Tare before weighing. Adjust the level feet.

Table 3

10. Data Output

1	Model or a decimal point
2	A space or a decimal point
3	A space or *
4	+ or - or a decimal point
5	data
6	Data or a decimal point
7	Data or a decimal point
8	Data or a decimal point
9	Data or a decimal point
10	Data or a decimal point

11	Data or a decimal point
12	Data
13	Unit 1
14	Unit 2
15	Unit 3
16	Enter
17	Wrap

Table 4



Biolab Scientific Ltd.

Trillium Executive Center, East Tower, 675 Cochrane Dr, Markham, Ontario L3R 0B8, Canada
Email: info@biolabscientific.com | Website: www.biolabscientific.com