

Operation Manual



BBAL-105 to 112

Analytical Balance

About the Balance

Specification

Model	Range	Division	Repeatability	Linearity	Pan Size
BBAL-110	220g	0.1mg	0.2mg	0.5mg	ø 80mm

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
Select measure units:mg, g, oz, ct
Memory for accumulated time
FA-N is internal calibration

Applications

Weighing
Net weight / tare
Below balance weighing
Piece counting function

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01 KNOW YOUR BALANCE

Thank you for selecting the FA(N) Series Analytical 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 do not put the weight over the weighing capacity , it will be damage the weighing sensor.

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

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

FEATURES:

Stainless Steel Pan

Super bright LCD display with backlight

RS232 Interface

Adapter supplied as standard

Windshield supplied as standard

Height adjustable feet, Bubble Level

Auto Calibration

Select measure units, mg,g, oz, ct

Memory for accumulated time

Weighing function

Piece counting function

Below balance weighing

02 Product Introduction

Model	BBAL-105 (N)	BBAL-106 (N)	BBAL-107 (N)	BBAL-112 (N)
Range	0-100g	0-120g	0-200g	0-220g
Division	0.1mg			
Repeatability	0.2mg			
Linearity	0.5mg			
Resp. Time	≤ 4 Sec.			
Pan Size	ø80mm			
Tare Range	Full			
Interface	RS-232 bi-directional			
Overall Dimensions	340 x 215 x 350mm			

Operating temperature	+10°C to 40°C
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Power Supply	External Power Adapter as standard (Input Voltage 220 V)
Net Weight	7.5 kg

03 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

04 CALIBRATION THE BALANCE

The balance need calibration when it not accurate, the step as:

- Keep the balance in the stable environment and stable table, Warm up the balance more than 1 hours.
- Press "CAL" key,

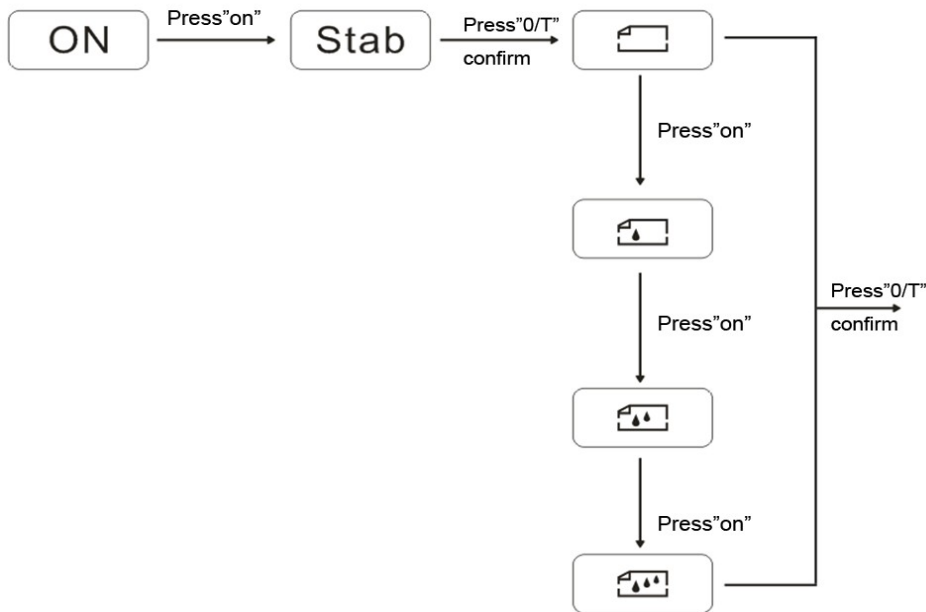
Series will show and shining: CAL-XXX.XXXX, put on the same value weight. Then the value will keep stable, Finally, move away the weight;

Series will going internal calibration, when it show 200.0000g, the calibration finish.

05 LOCATING THE BALANCE

- The balance should not be placed in a location that will reduce the accuracy.
- Avoid extremes of temperature. Do not place 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.



06 SETTING UP THE BALANCE

6.1 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

6.2 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.

07 OPERATION SETTINGS


7.1 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


7.2 SPEED SETTING

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

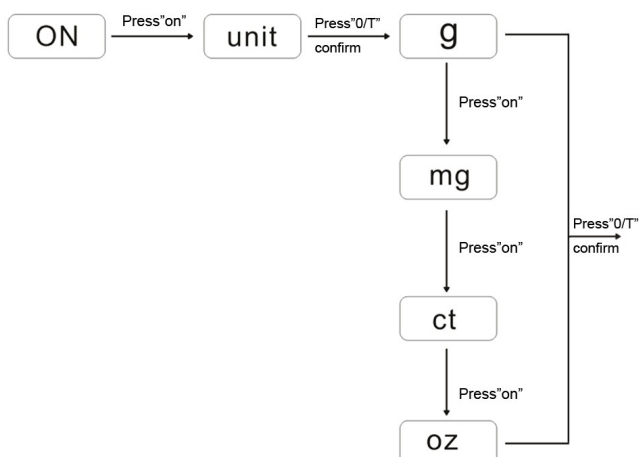
 ----Highest Speed

 ----High Speed

 ----Normal Speed

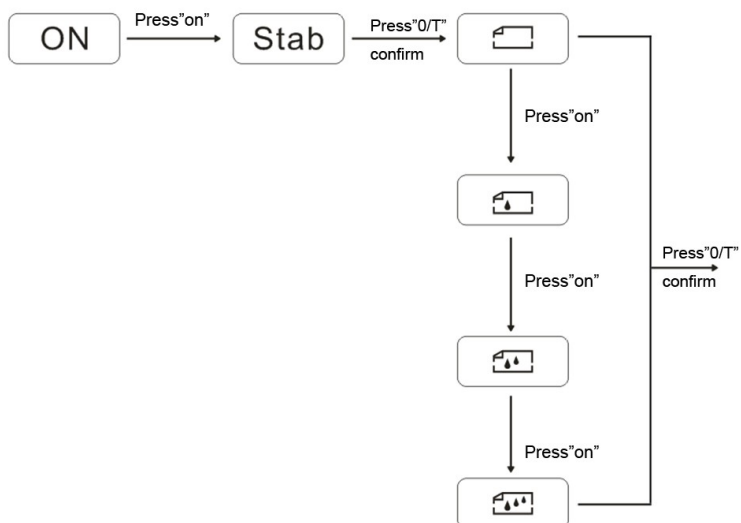
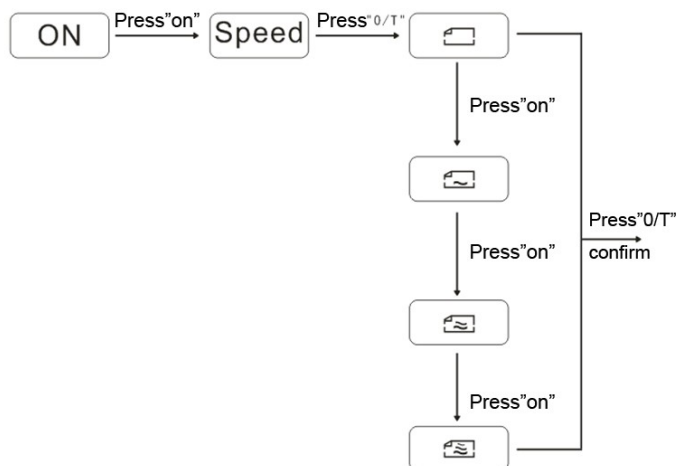
 ----Low Speed

press →0/T← to save setting



7.3 WEIGHING UNIT SETTING

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



7. 4 COUNTING FUNCTION

There are counting functions in the balance, and you can use this for count the quantity. And please keep the products have 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 menu, then press "ON" key, until it show "COU" ;



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



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



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




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




7.5 INTERNAL AUTOCALIBRATION TIME SETTING (Only For BBAL-109 & BBAL-110)


Press "ON" until it show "AUTO CAL", Press "0/T" to enter the automatic calibration time setting, press "ON" to choose the different time:

FA-N is internal calibration

-----10 minutes automatic calibration

-----30 minutes automatic calibration

-----60 minutes automatic calibration

-----Turn off the automatic calibration

Finally, Press "0/T" to confirm the setting.

08 FAULT JUDGMENT

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 digitsis wrong	The balance not calibration. Not tare before weighing. No adjust the level.	Calibration. Tare before weighing. Adjust the level feet.

09 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



Email: contact@biolabscientific.com
Website: www.biolabscientific.com