LABDEX

Magnetic Sensor Analytical Balance

LX301MSB

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1. Safety Measures

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 movements 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.

2. Introduction

Magnetic Sensor Analytical Balance LX301MSB is a high speed analytical weighing balance. Built-in magnetic force balance sensor for faster weighing with stability. The panel features five operational buttons with a slide glass windscreen for easy operation. Specially makes the fine pouring cast aluminum outer covering to enhance the balance of the antistatic and anti-jamming capability.

3. Features

- Cast aluminum outer covering
- Five operational button panel
- Sliding glass windscreen
- High precision magnet sensor
- Can be connected to external printer
- Anti-jamming and anti-static
- RS232 / RS485 interfaces provides speedy communication with computers and printers

4. Specifications

Model No.	**LX301MSB**
Weighing capacity	300 g
Sensor	Magnet
Minimum weighing	0.004 g
Resolution	0.001 g
Stable time	≤ 3 S
Display	LCD (white back light with black font)
Pan size	Φ 80 mm
Operation temp	15-35 °C
Repeat ability	±0.002 g
Liner	± 0.003 g
Draft shield size	240 x 190 x 265 mm
Calibration	External
Cal. weight	200 g
Interface	RS232
Packing size	490 x 360 x 510 mm
Gross weight	10 kg

5. Applications

Used for sample/standard preparation, formulation, differential weighing, density determination, interval weighing and pipette routine testing.

6. Installation

6.1 Unpacking the balance

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

6.2 Setting up the balance

6.2.1 Assembling the balance

1) Locate balance on a solid surface, free from vibration.
2) Open the sliding door and gently place the stainless-steel top.
3) Level balance using the adjustable feet and the bubble level.
4) Connect the power to the balance.
5) For best performance, let the balance warm up for 30-60 minutes and calibrate before using.

6.2.2 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.

7. Operations

7.1 Calibration of the balance

The balance needs calibration when it is not accurate, the steps are as follows:

1) Keep the balance in a stable environment and stable table, warm up the balance for more than 1 hour.
2) Press the **"CAL"** key, and it will show and shine: CAL-XXX.XXXX, put on the same value weight. Then the value will remain stable.
3) Then show the value of the weight, then move away the weight, and the calibration is finished.

7.2 Operation Settings

7.2.1 Sensitivity Setting

Keep pressing **ON**, when "Stab" is shown in the display. The operation is as below.

	Poorest Sensitivity
	Poor Sensitivity
	Normal Sensitivity
	High Sensitivity

Press →**0/T**← to save setting

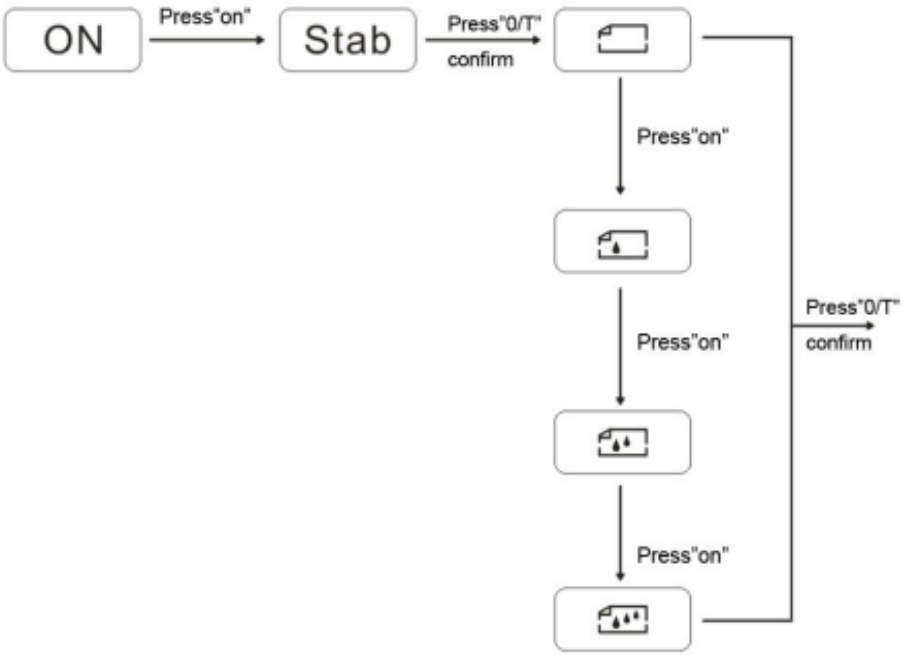

Figure-1

7.2.2 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 the setting.

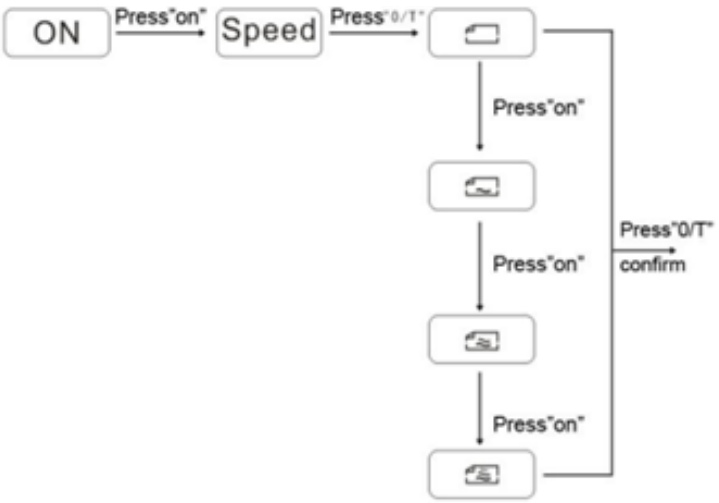

Figure-2

7.2.3 Weighing unit setting

Keep pressing **ON**, when the **Unit** is shown, then operate as below:

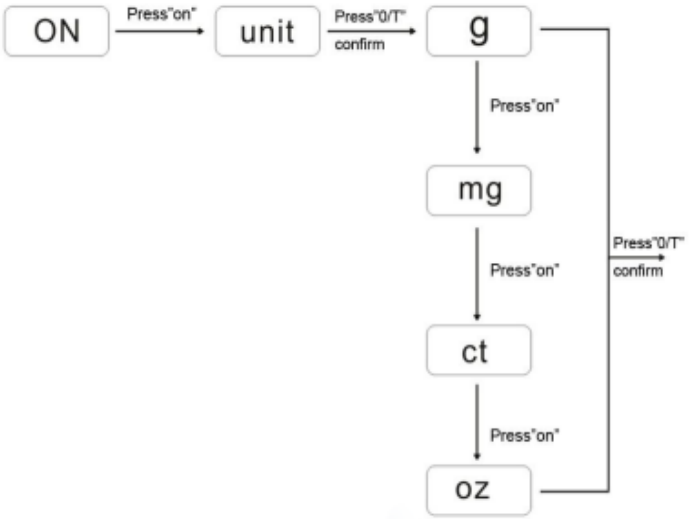

Figure-3

7.2.4 Counting Function

There are counting functions in the balance, and you can use this to count the quantity. And keep the products have the same weight, and the minimum weight must be ≥0.5mg.

The details of operations are as below:

1) Press the **"ON"** key, enter the menu, then press the **"ON"** key, until it shows "**COU**".

Figure-4

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

Figure-5

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

Figure-6

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

Figure-7

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

Figure-8

7.3 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

8. Troubleshooting

If the user comes across any problem, the user can check it by yourself and find the reasons.

Fault	Reason	Exclude
No display	Not connected to the power supply.	Plug in the power line.
	The fuse is broken.	Replace the fuse.
	Power transformer damage.	Replace the power transformer.
Weighing unstable	Bad working conditions.	Keep the environment stable and close the windows and doors.
	The windscreen is open.	Close the glass door.
	Something between the table and balance.	Take away the things.
	The power is unstable.	Connect the stable power.
	Weighing unstable.	
The weighing digit is wrong	The balance is not calibrated.	Do the calibration before operation.
	Did not tare before weighing.	Tare before weighing.
	Not adjusted the level.	Adjust the level feet.