ELECTRONIC BALANCE
NEB-202

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1. Safety Measures

- Ensure the balance is powered on according to the specified requirements and allowed to warm up before use.
- Verify that the working environment and conditions meet the specified environmental requirements for optimal performance.
- Ensure that the total weight placed on the weighing tray does not exceed the balance's maximum weighing capacity.

2. Introduction

Electronic Balance NEB-202 is an electromagnetic weighing balance designed for the precise quantification of mass or samples. It is equipped with an aluminium based sensor for enhanced readability of the estimation procedure. It is featured with automatic zero tracking function to overcome any drifts in measurements.

3. Features

- ✓ Large white back-light LCD Display
- ✓ It is made up of 304 stainless steel material
- ✓ Both Internal as well as External Calibration is possible
- ✓ It provides RS232C Interface for data transfer and storage
- ✓ It can represent measured output of mass in different units like g, kg, oz, ct, lb, GN
- ✓ It is featured with over-protection, Full range tare and zero-tracking
- ✓ Automatic turn off post operation without manual activity

4. Specifications

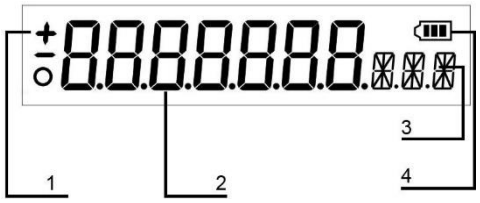
Model No.	**NEB-202**
Maximum Capacity	3100 g
Readability	0.01g
Repeatability	≤ 0.02g
Linearity	0.02g
Display dimensions(L×W)	110×30 mm
Pan circle diameter	Ø160mm
Value stable time	3 s
Loading cell dimension (L×W×H)	131×23×26 mm
Overall dimensions (L×W×H)	330×210×100 mm
Net weight	2 kg

5. Applications

It is widely used in Chemical and reagent manufacturing units, Pharmaceutical laboratories, bioorganic departments, food processing and development laboratories, and manufacturing units of processed or under process goods. It is also used for certain applications in test laboratories for educational purpose etc.

6. Instrument Introduction

Display Icon



1. **Status Icon:** The symbols "+" and "-" indicate the reading state. The "o" symbol represents the weighing process; the weight is stable when it disappears.
2. **Digits:** The digits display the weight of the object.
3. **Unit Icon**: Indicates the unit of measurement being used.
4. **Residual Battery Capacity:** Shows the remaining battery level.

Working Conditions:

- **Working Temperature**: 0°C to 40°C
- **Maximum Power Consumption:** 5W
- **Temperature Fluctuation**: ≤ 5°C/hour
- **Power Supply**: 100–220V, 50Hz/60Hz
- **Relative Humidity**: 50%–85%

7. Installation

The electronic balance should be placed on a stable working platform during operation to avoid the effects of mechanical vibrations, direct sunlight, and air currents.

8. Operations

8.1 Minimum Weight Setting

Under the desired weighing range, you can set the minimum weight according to your requirements. For example, if we choose "0.00" as the accuracy, the minimum weight can be set as follows:

1. Turn on the balance, and it will display “0.00”.
2. Press the “0” and “COUNT” buttons, and the display will show “1d” (you can choose between 1d to 5d for the number of digits).
3. Press “COUNT” or “CALIBRATION” to select the minimum weight you require.

8.2 Operation

Power-on: Press the “ON/OFF” key, and the display will sequentially show “8.8.8.8.8.8.”, followed by the "Max weighing capacity of balance", and then “= = = = =”. Finally, it will display the weighing mode as “XXX.XX”.

If an error appears on the display, turn the balance off and then turn it on again.

It should operate normally thereafter.

8.3 Calibration

1) Calibration Requirements

When distinct errors appear in the weighing of the balance, it should be recalibrated to ensure accurate readings. The recalibrated balance must be placed on a stable working platform, free from vibrations, air currents, and strong electromagnetic interference. The calibration results will be more accurate 20 minutes after the balance has been operated**.**

2) Calibration Procedure

One-point Calibration

Turn on the balance, and it will display the weighing mode as “0.00”. Then, press the “Cal” button until "CAL" appears, then release the button. The display will blink with the standard weight value. Place a standard weight with the same value on the balance. The display will show “= = = = = =”, then stabilize and display the weight value. Remove the weight, and the display will show “= = = = = =” again, followed by “0.00”. The calibration is now complete.

Three-Point Calibration

Turn off the balance, then press the “Cal” button and turn on the balance simultaneously until the display shows “CAL”, then release the button. The calibration procedure will proceed as follows:

1. The display will blink with the first standard weight value. Place a weight of the same value on the balance. The display will stabilize and show the weight value. Remove the weight, and “= = = = = =” will be displayed.
2. The display will blink with the second standard weight value. Place a weight of the same value on the balance. The display will stabilize and show the weight value. Remove the weight, and “= = = = = =” will be displayed.

3. The display will blink with the third standard weight value. Place a weight of the same value on the balance. The display will stabilize and show the weight value. Remove the weight, and “0.00” will be displayed.
   The calibration is now complete.

8.4 Tare

- If a container is placed on the weighing tray, the balance will display the weight of the container.
- Press the “TARE” button, and “0.00” will be displayed, indicating that the tare weight has been deducted.
- Place the object into the container, and the balance will display the weight of the object.

8.5 The counting operation of the balance

1) Press the “COUNT” button, and "COU" will be displayed. The display will then blink with one of the available counting mode values: “5, 10, 20, 40, 50, 100, 200, 300, 400, 500.”
   - Press the “TARE” button to select one of the mode values.
   - Place the items with the same quantity as the selected mode value on the weighing tray, then press the “Confirm” button.
   - The display will show “= = = = = =.” Shortly afterward, it will display the stable mode value, indicating the counting operation setup is complete.
   - After the setup, the counting operation can begin. Place the items on the weighing tray, and the display will show the quantity of items.
     Note: The weight of the items being counted must be at least four times the minimum reading value. If not, the difference in counting may be significant, and counting cannot be performed accurately.

2) Quit the counting operation
Press the “COU” button, and “= = = = = =” will be displayed. The balance will then exit the counting operation mode and return to the weighing state.

3) Overload Warning
When the weight of an object exceeds the maximum weighing capacity of the balance, the display will show “OVERLOAD” and indicate that the object is overloaded. The object should be removed to prevent damage to the balance.

9. Accessories

Optional Accessories

Accessories No	Name
1	Windshield
2	Printer
3	Weighing hook
4	Rechargeable battery

10. Packing List

Name	Quantity
Electronic balance	1set
Weighing tray	1
Instruction book	1copy
Power adapter	1

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