



Intelligent-Lab Models

PBW

PMW



USER MANUAL

Intelligent –Lab range of balances

We have a combined 60 years of experience in the weighing and measurement industry, both in the USA and worldwide. With contacts in over 50 countries, we provide you with the weighing and measurement equipment you need.

QUALITY - Products solidly built from the ground up with superior engineering and components for exacting results.

VALUE - Equipment priced for real-world business applications, with superior service and support.

EXPERIENCE - Expert advice to help you choose just the right product for your application.

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CONTENTS

1	INSTRUCTIONS FOR USE.....	2
2	PARAMETERS.....	2
3	DISPLAY SYMBOLS.....	3
4	KEYBOARD FUNCTION.....	3
5	OPERATION.....	4
	5.1 UNIT SELECT.....	4
	5.2 COUNTING FUNCTION.....	4
	5.3 ZERO AND TARE FUNCTION.....	4
	5.4 RS232 TRANSMISSION.....	4
	5.5 CALIBRATION.....	4
6	ADVANCED FUNCTION SETTING.....	6
7	POWER.....	7
8	PROBLEMS & SOLUTIONS.....	8

1 INSTRUCTIONS FOR USE

- 1) Keep the balance away from high temperatures and damp environments;
- 2) Avoid shock loading or objects dropping on the balance;
- 3) The load placed on the weigh pan must not exceed the maximum weighing capacity of the balance.
- 4) Please warm up the balance for 15~20 minutes before operation.
- 5) Ensure the platter is clear before turning on.
- 6) Items to be weighed should be placed at the center of the platter when being weighed, and should not exceed the dimension of the platter. Note! Always press **【TARE】** before each weighment.
- 7) If the balance is not used for a long period of time, recharge it every 3 months so as to ensure a long life of the battery (if fitted). Fully recharge it before using again. Take care not to keep the balance being charged for too long.
- 8) Please note when the low battery symbol on the screen, the battery needs to be recharged.

2 Parameters

MODEL: PMW, PBW series;

Division: 320 000;

Load cell: 350 Ω load cell;

DISPLAY: Large LCD display with built-in backlight

POWER: DC9V and

Built-in 6V4AH rechargeable battery(option only)

Temperature: 5°C~40°C;

Humidity: ≤85%RH

3 DISPLAY SYMBOLS

LCD DISPLAY SYMBOLS



- Battery status indication



- Stable indication

pcs

- Indicating that the balance is in the simple counting mode.

4 KEYBOARD FUNCTION

- ✧ 【ON/OFF】 : Switch on or off
- ✧ 【CAL】 : CAL Key to enter calibration.
- ✧ 【TARE】 : Tare Key to deduct the container weight or zero the balance.
- ✧ 【MODE】 : Press this key to choose the desired unit weight and enter the counting mode.
- ✧ 【PRINT】 : Press this key to enter the print mode.

5 OPERATION

5.1 UNIT SELECTION

Press the **【MODE】** Key to choose the desired unit weight.

5.2 COUNTING FUNCTION

Place a sample of the item which needs to be counted and press **【MODE】**. The balance will show "COU", Press **【TARE】** key into counting mode. Press **【CAL】** to select 10, 20, 50, 100, 150, 200, 250 or 500 **【equal to how many you use in the sample】**. Press MODE to confirm. Press the **【MODE】** key again to return back to the weighing mode.

5.3 ZERO AND TARE FUNCTION

To zero or tare the balance press the TARE key, this will return the display to zero. Always press TARE before weighing.

5.4 RS232 TRANSMISSION (OPTION)

Press PRINT to enter printing.

Baud Rate: 1200 /2400/4800/9600 BPS

Data format: 8 Data Bit, No Parity Bit, 1 Stop Bit

Output	Weigh:	XXXXXXXX	SP	XXX
Note	A	B	C	D

A- Display Weigh: B Symbolic(+/-) 6 Data, Decimal point

C- The space character

D- Unit Weight

5.5 CALIBRATION

For maximum accuracy, calibration is required before use.

Indicators your balance may need to be calibrated:

- If your balance is not weighing correctly
- Your balance is stuck at zero

- Inconsistent/Inaccurate weights

Instructions for external calibration

- 1.) First remove all objects from weighing pan
- 2.) Press the CAL key until the balance shows "CAL", calibration will begin.
- 3.) The balance will show the required weight for calibration. Place the required weight as indicated on the screen on the center of the pan.
- 4.) Once the required weight is placed on the balance it will show lines across the screen -----, Then it will show the required weight once more.
- 5.) Then remove the weight and the screen will show ----- then return back to zero. Calibration is complete.

Note:

Please make sure you are using the proper weighing mode (g) when calibrating.

Internal Linearization (For scale technicians only)

T

- 1.) First remove all objects from weighing pan.
- 2.) Press CAL key until the balance shows "CAL".
- 3.) The balance will show & flash the required weight for calibration.
- 4.) Press MODE key until the balance shows "CAL" and the required weight once more.
- 5.) Place the required weight as indicated on the screen in the center of the pan. Once the required weight is placed on the balance it will show lines "-----" across the screen.
- 6.) The display will then show the next weight in the linearization sequence. Add this weight
- 7.) Repeat the procedure 5. & 6. until the display returns to

zero and no more weights are called for. Linearity calibration is complete.

6 **Advanced function setting**

Press PRINT until the screen shows "SET-UP", then it'll enter the advanced function setting.

1) C Function (Zero Tracking): Press PRINT to select, press MODE to confirm, press ON/OFF to exit.

C---1: No zero tracking

C---4: Zero tracking +/-3d

C---2: Zero tracking +/-1d (default)

C---5: Zero tracking +/-4d

C---3: Zero tracking +/-2d

C---6: Zero tracking +/-5d

Note: The larger the value, the more stable the system; the smaller the value is, the more sensitive the system is.

2) P Function (data transmission mode): Press PRINT to select, press MODE to confirm, press ON/OFF to exit.

P---1: Single transmission, data transmission if PRINT is pressed once.(default)

P---2: Continuous transmission. Press PRINT to transmit continuously, and then press PRINT to stop continuous transmission.

3) BL Function (power-saving mode) Press PRINT to select, press MODE to confirm, press ON/OFF to exit.

BL---1: Power-saving mode turns on. Power-saving mode will auto turn off within 60 seconds if the balance is not used.
(default)

BL---2: Power-saving mode is off.

4) FA Function (weighing speed) Press PRINT to select, press MODE to confirm, press ON/OFF to exit.

FA---1: Weighing speed is natural.(default)

FA---2: Weighing speed is faster.

5) b Function (Baud Rate selection) Press PRINT to select, press MODE to confirm, press ON/OFF to exit.

b---1: 1200 bps(default)

b---2: 2400 bps

b---3: 4800 bps

b---4: 9600 bps

6) U Function (unit select) Press PRINT to select, press MODE to confirm, press ON/OFF to exit.

U---ON: The selected weight unit displays on the screen.

U---OFF: The selected unit weight disappears on the screen.

7) RES Function (factory default setting) Press PRINT to select, press MODE to confirm, press ON/OFF to exit.

RES---0: Not restore the default settings;

RES---1: Restore default settings.

Note: View the sensor code: press TARE for about 4 seconds will display the sensor code; press "CAL" to exit.

7 POWER

LOW BATTERY

LCD series has the function of detecting the battery all the time. When  appears on the upper left corner of the display, the battery needs recharging. If you don't recharge in time, the power will be automatically cut off to protect the

battery after using 2~3 minutes. Please immediately recharge the battery. It is important to charge the battery when the  icon shows, failure to recharge will cause damage to the battery.

Charging tips

In LCD series when Battery status indication is “” and stays solid, it means the battery is fully charged (Usually, it takes about 8~10 hours to charge fully.).

8 PROBLEMS & SOLUTIONS

Problems	Reason	Solutions
When the screen appears “-----” or “-----”	Interference/overload	Power off/Re-calibrate
Unstable weights	1. Environment is not good.	Improve the environment, stop drafts, vibration etc.
	2. There is something impacting the pan.	Remove the obstruction.
	3. The object being weighed may be moving.	Keep the object still.
Inconsistent/inaccurate weights	1. The balance didn't calibrate correctly.	Calibrate again.
	2. Didn't tare before weighing.	Tare
	3. Low battery	Replace or Recharge the battery