

USER MANUAL

PRECISION ELECTRONIC BALANCE OPERATION MANUAL



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VI. RS232 Transmission

Press to enter printing

Baud Rate: 1200/2400/4800/9600 bps

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

Output	weigh:	XXXXXXXX	XXX
Note	A	B	D

A – Display weigh:

B – A Symbolic (+/-) 7 Data, Decimal point

D – Weight unit

VII. 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.

Charging tips

In LCD series when Battery status indication is * * and hold on. It means the battery will be full after recharging 1~2 more hours (Usually, it takes about 8~10 hours to charge fully.).

VIII. Troubleshooting Guide

Problems	Reasons	Ways to solve
When the screen appears 	Overload	Calibration
When the screen appears 	Interference/ overload	Power off/ Calibration
Unstable weights	1. Environment is not good.	Improve the environment
	2. There's something impacting the pan	Remove the things
	3. Unfixed the measured objects	Fix the objects
Inconsistent/ inaccurate weights	1. The balance didn't calibrate	Calibration
	2. Didn't tare before weighing	Tare
	3. Low battery	Recharging

IX. Advanced Function Setting

Press until the screen shows sensor code, then press will enter the advanced function setting (Press to select, press to confirm, press to exit.).

1) C Function (Zero Tracking Selection)

C---1: No zero tracking

I. Notes

1.) Do not get the balance wet. If the balance gets wet, please wipe it with a dry cloth. If water damage occurs, this will void your warranty.

2.) Do not drop or shock the balance. Do not drop any item(s) onto the tray. This may cause permanent damage. Operate the balance gently and gently place items onto the weighing tray. Overloading the balance will cause damage to the weighing sensor.

3.) Extreme temperatures (hot and cold), humidity, shocks and vibrations should be avoided at all times.

4.) If the balance will not be used for a long time, please remove or unplug the power source. Clean the balance and store in a non-static polybag. A desiccant is suggested to be included.

5.) Matter charged with static electricity can affect accuracy. Discharge all static electricity. For example, one method is to use Static-Guard spray. Please spray on both sides of the weighing platform.

II. General Information

i. Overview

This balance is very accurate balance, which is designed to meet the needs of laboratories, industry and commercial users. This balance has a very clear and big display which greatly reduces the chances of mistakes. The high-speed processor

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

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

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

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

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

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

2) P Function (Data Transmission Mode Selection)

P---1: Single transmission, data transmission according to press PRINT once.

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

P---3: Single transmission when stable. When the weight is stable, it'll print once. (Default)

3) FA Function (weighing speed)

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

FA---2: Weighing speed is faster.

Note: After changing the weighing speed, pls interior calibrate the machine.

4) b Function (Baud Rate Selection)

b---1: 1200 bps

b---2: 2400 bps

b---3: 4800 bps

b---4: 9600 bps (default)

5) BL Function (Power-saving mode Selection)

BL---1: Power-saving mode turns on. Power-saving mode will auto turn on within 60 seconds no using of the balance.(default)

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

6) Z Function (Back to Zero Tracking selection)

Z---0: no back to zero tracking

Z---1: back to zero tracking +/-1d

Z---2: back to zero tracking +/-2d

Z---3: back to zero tracking +/-3d

Z---4: back to zero tracking +/-4d

7)BEEP Function(Buzzer Sound Selection)

BEEP-0 buzzer will don't sound

BEEP-1 buzzer will sound

8) PASS Function(PST model Selection)

PASS-0, in weight checking, when the object is higher the low limit value and the object is lower the high limit value , the buzzer will sound.

PASS-1, in weight checking, when the object is lower the low limit value or the object is higher the high limit value , the buzzer will sound.

9) U Function (Unit Selection)

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

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

X. Unit conversion table

Mark	Unit	Conversion Factor
g	gram	1
ct	carat	5
oz	ounce	0.03527396200
ozt	troy ounce	0.03215074700
dwt	Pennyweight	0.64301493100
gn	Grain	15.43235835000
lb	pounds	0.00220462260
kg	kilogram	0.00100000000
tit	Taiwanese tael	0.02666666000
tih	Hong Kong tael	0.0271700000
gsm	grams for square meter	100
TAR	Tola/anna/ratti	0.01.2.2
TMR	Tola/masha/ratti	0.01.0.2

XI. Warranty

The balance is warranted for one year from the date of purchase against defects in materials and/or workmanship. If the products fails to operate to specification during this period, when used under normal conditions, we will repair or replace it at our option, without charge. You must obtain a return goods authorization and pay the shipping charges to us. Adjustment or modification of any internal components, by other than a factory authorized technician, voids warranty coverage. Warranty does not apply to accident, misuse or foreign material penetrating unit housing.

process the weight very quickly and will provide you with a very speedy weighing experience. The glass windshield protects against wind. The integrated RS232 enables you to auto send the weighing data to PC or other equipment.

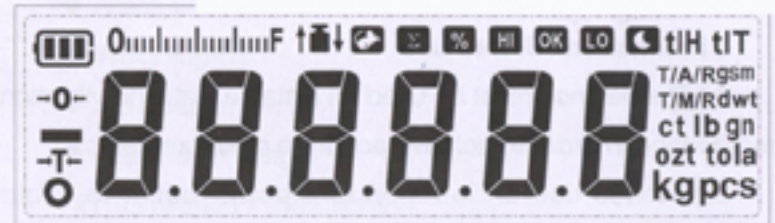
In order to provide a quick and easy weighing experience, the following functions are included.

1. Kinds of different international weighing units: g, ct, oz, ozt, dwt, gn, lb, kg, t, tola, gsm, TAR, TMR, tlt, tlh, etc.
2. Wide range of function: weighing, parts counting, check weighing, animal weighing, percent weighing, accumulating function, etc.
3. Large LCD display with backlight.
4. Power-saving mode.
5. Data Transmission- Serial RS-232
6. Over-loading Indicator.
7. Battery Indicator.
8. Data-saving Function.

ii. Parameter

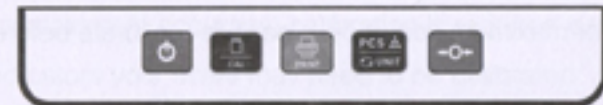
Mode	High Precision Electronic Balance
A/D Converter	24 bits
Division	30 000 ~ 300 000
Load cell	350 Ω load cell
Display	LCD display with backlight or LED display
Power	DC9V / 6V1.3AH battery
Temperature	0°C~40°C; ≤85%RH;

iii. Display



- Battery Indicator
- Calibration Indicator
- Negative Weight Symbol
- Overloading Indicator
- Accumulation Indicator
- Percent weighing Indicator
- OK Limit Value
- Animal Weighing
- GNET** Gross/Net Weight
- Zero and Tare
- Sleeping mode
- High Limit Value
- Low Limit Value

iv. Panel Functions



Name	Function
	Switch on or off
	Calibration
	Print Function
	Units conversion & Counting mode selection
	Zero and tare

III. Instructions for Use

i. Precautions Before use

1.) The balance must be used on a stable, flat, and vibration free surface in order to achieve accurate measurements.

2.) Please use an independent power outlet to avoid interference by other electronic appliances.

3.) In order to bring the balance into a horizontal position, the adjustable feet can be turned either clockwise or counter-clockwise until the air bubble is in the center of the marked circle.

4.) Do not put any object on the balance before powering on.

5.) When possible, please allow the balance to warm up for about 30–60 minutes before operations

6.) Items should always be placed on the center of the platform when being weighed.

7.) For maximum accuracy, please re-calibrate before each use.

ii. Storage and shipping condition

Allowable storage humidity: 50%~75%RH

temperature: 10°C~30°C (fluctuations \leq 1°C/h)

After unpacking the balance, please check it immediately for any visible damages as a result of rough handling during shipment

iii. Getting Started

1) Please check whether the components listed below on

the balance are in good condition:

- ◆ Glass windshield
- ◆ Weighing pan
- ◆ AC adapter
- ◆ Calibration weight

2) Installation instructions

- ◆ Place the weighing pan on the balance.
- ◆ Leveling the balance using the leveling feet so that the air bubble is centered within the circle of the level indicator.
- ◆ Close the windshield door carefully.
- ◆ Plug the cord on the AC adapter into the AC jack; then

plug the AC adaptor into a wall outlet. Please make sure that the voltage rating printed on the balance is identical to your local line voltage.

IV. Calibration


For maximum accuracy, calibration is required before use.

Indicators your scale may need to be calibrated:

- ◆ Firstly use this balance.
- ◆ Weighing for a long time (about after 30 days).
- ◆ The ambient condition changed.
- ◆ The temperature changed strongly.

Instructions for extramural calibration

1.) First remove all objects from weighing tray

2.) Press  until the scale show "CAL", calibration will begin.

3.) The scale will show the required weight for calibration. Place the required weight as indicated on the screen on the center

4.) Once the required weight is placed on the scale 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 set back to zero. Calibration is complete.


Note: Please make sure you are using the proper weighing mode when calibrating.


Instruction for Intramural calibration

Please enter interior calibration when the precision is different on different weight.

for example: 520g/0.01g

1.) First remove all objects from weighing tray.

2.) Press  until the balance shows "CAL".

3.) Then press  until the balance shows "CAL" once more. Intramural calibration will begin.


4.) The balance will show "500.00g". Place 500g weight on the center of the weighing pan. Then the balance will show lines across the screen -----, wait until it shows "500.00g" once more. Then remove the weight and the screen will show --- ---.

5.) The scale will show "200.00g". Place 200g weight on the center of the weighing pan. Then the balance will show lines across the screen -----, wait until it shows "200.00g" once


more. Then remove the weight and the screen will show --- ---. Then set back to zero. Calibration is complete.

V. Operations


i. Turning the balance On/Off

Press  to switch the balance On and Off.





ii. Zero and Tare Function

Press  will deduct the container weight or return the display to zero.




iii. Unit conversion


The models have 16 units selection. You can select the weighing unit by pressing  and scrolling through the options.

iv. Counting

Press  for about 3s and the screen will show "COU", place the item which needs to be counted. Press print key into counting model. The balance will show PCS in the right corner. Press  to select 10, 20, 50, 100, 150, 200, 250 and 500. Press  key to confirm. In the counting mode press  again into normal weighing mode.




v. Weighing in Percent





Press  key for about 3s and the screen will show "COU", Press  then the screen will show "PCT", place the item which needs to be calculated and press  key. The balance will show "100.00%" and " % " will show in the corner of the screen,





it's entering percent weighing. In the percent weighing mode press  key again into normal weighing mode.


vi Check Weighing

1. Preset high & low limit values operation


1) Press  key for about 3s and the screen will show "COU", Press  key twice and the screen will show "PST", and press  key into preset high & low limit values operation.





2) preset high limit values. the screen will show "----Hi---", and then "HI" display in the right corner, the screen display last high limit values. Press  key clear last high limit values, and then display "0-.-.-.-g". Press  key to select 0~9, press  key to confirm and right shift. When completely set the last bit, press  key again, high limit values operation success.

3) preset low limit values. the screen will show "----Lo--", and then "LO" display in the right corner, the screen display last low limit values. press  key clear last low limit values, and then display "0-.-.-.-g". Press  key to select 0~9, press  key to confirm and right shift. When completely set the last bit, press  key again, low limit values operation success.

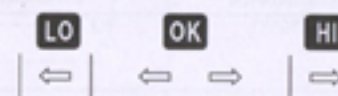
Note: in case want to exit, Please press  key.

2. Display high & low limit values operation

Press  key for about 3s and the screen will show "COU",

Press  key twice and the screen will show "PST". And press  key and the screen will show "----Hi----", and then "HI" display in the right corner. the screen display high limit values. Press  key and the screen will show "----Lo--", and then "LO" display in the right corner. the screen display low limit values. press  key to exit.

3. LCD indications and buzzer






10d low limit value high limit value





If set-up menu select PASS-0, when the object is higher the low limit value and the object is lower the high limit value, the buzzer will sound.

If set-up menu select PASS-1, when the object is lower the low limit value or the object is higher the high limit value, the buzzer will sound.

4. Clear the check weighing settings

Press  key for about 3s and the screen will show "COU", Press  key three time and the screen will show "PST CE". And press  key to clear the high & low limit values.

vii. Animal weighing

Press  key until the screen display  , the balance into animal weighing in the animal weighing mode, press  key until  disappear, balance into normal weighing mode.