

# 电子天平

Electronic balance

使用说明 INSTRUCTIONS

首次使用前请阅读说明书 Read the manual before first use

# 致用户词

Letter to Customers

#### To User word

#### 亲爱的用户:

让我们借此机会,对于您选购北斗星电子天平表示感谢。 我们特别建议您在着手操作本仪器前,要仔细阅读此使用说明书, 以备后续参考之用此本说明书.

Dear User.

We would like to express our gratitude for purchasing our electronic balance.

Before operating this machine, we highly recommend that you carefully read this manual and keep it in a safe place for future reference.

- ■本公司拥有对本说明书的最终解释权。
- ■对本说明书,本公司保留对其修改的权利,若有变动恕不另行通知。
- ■未经本公司的事先书面许可,此说明书之部分或全部不准复制,翻译或译成其他种语言。

Our company retains the ultimate authority to interpret this manual.

The company reserves the right to modify this manual without prior notification.

Without written approval from the company, this manual or any part thereof cannot be copied or translated into other languages.

### 如需更多电子秤产品可联系经销 (口袋秤、珠宝秤、厨房秤、克拉秤、电子天平、称重仪表等)

If you need more electronic balances, please contact our distributors (Pocket scales, jewelry scales, kitchen scales, electronic scales, weighing indicator, etc)

### 警告 Warning

请勿擅自打开机壳(或后盖),维修检查只可委托专业人员进行。

Please do not open the casing (or back cover) without authorization. Maintenance and inspections should only be entrusted to professionals.

### 保修服务 Warranty service

#### 请保存好保修卡以备后续享受售后维修服务的凭证。

Please keep the warranty card for future proof of after-sales maintenance service.

### 存放和运输条件 Storage and transportation conditions

请勿将仪器放置于温度过高或过低、易碰撞、剧烈震动、温度较大、气流较大的环境中。

Avoid placing the instrument in environments with excessively high or low temperatures, where collisions are likely to occur, where there is violent vibration, or where there is significant airflow.

### 开箱 Unboxing

○ 拆开包装后,请即刻对仪器的外观进行观察,看是否有因运输途中搬运不当造成的损失。

After opening the package

please promptly inspect the instrument's appearance to check for any damage that may have occurred during transit due to improper handling

〇 如发现破损,请您及时跟厂家联系。

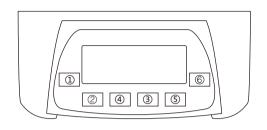
If you discover any damage, please contact the manufacturer promptly.

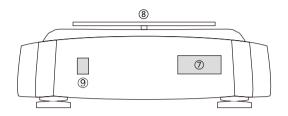
### 配件 Accessory

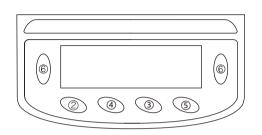
天平主机 balance host	1台	1piece
秤盘 weighing pan	1个	1piece
充电器 Charger	1个	1piece
合格证 Certificate	1份	1piece
说明书 Manual	1份	1piece
用户反馈表 User feedback form	1份	1piece
校准砝码 (1.5公斤及以上不包含) Calibration weight( ≥1.5kg not include )	1个	1piece
蓄电池 Battery	1个	1piece

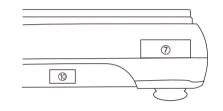
#### 识别部件和操作键盘

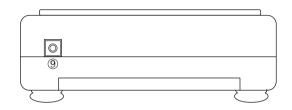
Component identification and keyboard operation









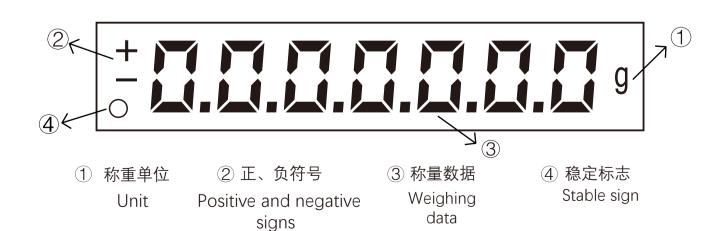


- ① 开关键(PN系列) Power key(PN Series)
- ② 校准键 MODE Calibration key
- ③ 单位转换键 UNIT Unit conversion key
- ④ 打印键 PRINT Print key
- ⑤ 计件数功能 PCS Counting function

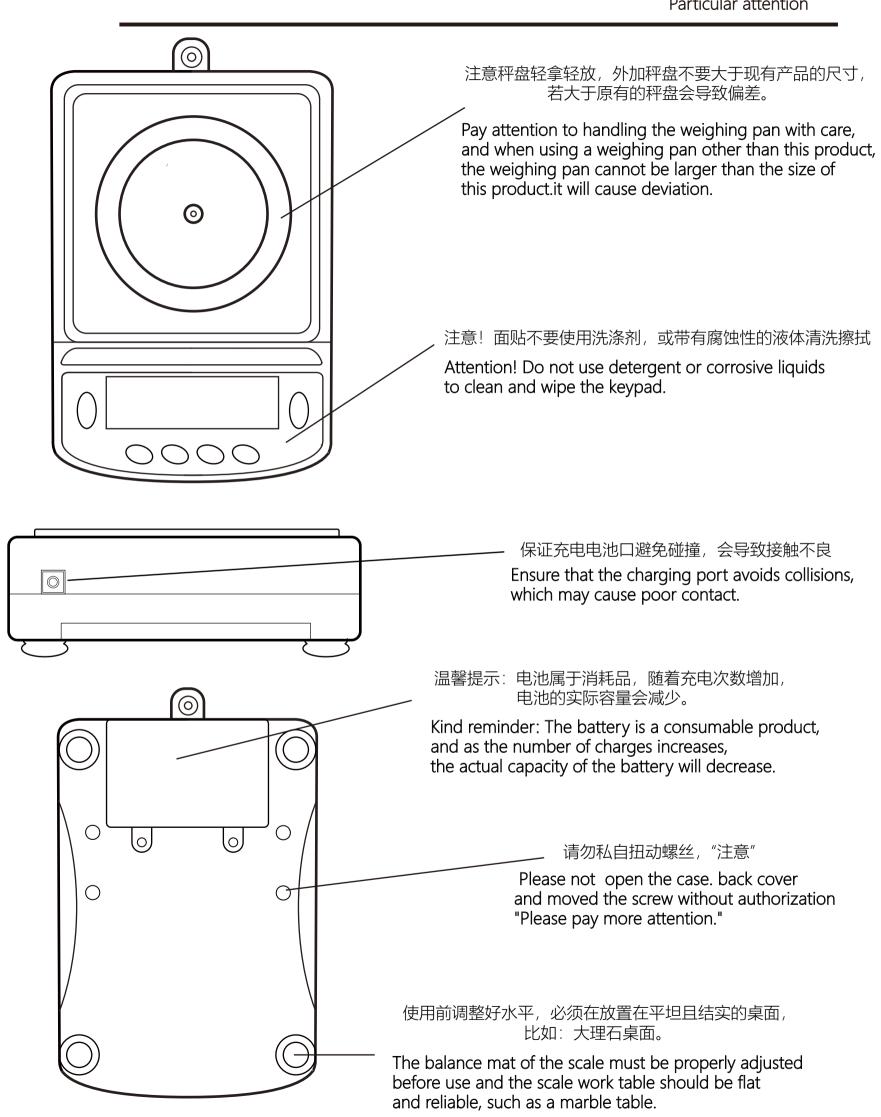
- ⑥ 去皮键 TARE key
- TARE
- 7 RS-232输出接口 RS-232 output interface
- 8 秤盘部件 Weighing pan
- 9 DC插口(220V交流电输入) DC Port
- ⑩ 开关键 (DJ系列) Power key(DJ Series)

### 显示窗介绍

**Display Window Introduction** 



# 这一页是产品的按键功能,请看下一页



## 请继续观看下一页 (使用者必须仔细阅读)

Use and operation of the balance

#### 校准 Calibration

经过预热的天平,在使用之前,应进行校准,这样可以使您的天平达到最佳工作状态。

The preheated balance should be calibrated before use, so that your balance to work optimally.

#### 1.按去皮键 Press TARE key

消除秤盘上的物品,按去皮键,使天平显示为"0"。





Remove the item from the weighing pan,press" TARE" key,make the balance display" 0".

#### 2. 长按住MODE出现FO

Long press" MODE" key,the balance display" FO" .





#### 3. 按PRINT键 Press"PRINT" key

按"Print"键,后出现"LoRd"和"数字"跳动(可按PCS键选择不同的砝码重量进行校准操作),并放置相等重量的砝码,稍等3-5秒。

Press the "Print" key, and "LoRd" and "Number" will flash9(Can be press the PCS button to select different calibration weights for calibration operations), and place the weight relative to the number, and wait for 3-5 second.

#### 4.校准完毕 Calibration completed

屏幕背光亮起和左上角稳定符号 "o"出现,自动回到称重状态。校准完毕,取下砝码即可。



The backlight of the screen is on and the stable symbol "o" appears in the upper left corner, and it returns to the weighing state automatically. After calibration, remove the weight

#### 5.注意事项 Precautions

当天平不稳定或秤盘上有物品时进行校准操作, 屏幕会显示CALF字符, 无法进行下一步操作。 则需要将天平转移到平坦地面或桌面, 并进行第六项操作步骤



Calibrate when the balance is unstable or there are items on the weighing pan, the screen will display CALF characters, and the next step cannot be performed. You need to transfer the balance to a flat ground or table, and perform the sixth operation step

#### 6.线性标定

当天平出现负数或秤盘上的物品称重不准,如校准后仍然无法解决,请到当地购买的经销代理处进行线性标定操作。标定要求:长按住MODE键,出现FO,按PRINT键,出现校正量程,再按MODE键,显示相对应的砝码值,进行线性标定。(非专业人士勿操作)

Linear calibration requirments:Long press the "MODE"key, when display shows "FO",and press the "PRINT"key, after the calibration range appears,press the "MODE"key ,and put the calibration weight according to the displayed value.(Non-professionals are not allowed to do)

# 特别注意!请阅读本页的校准提示!

Please pay special attention to read the calibration prompts on this page!

Use and operation of the balance

### 计数 Counting

该天平具有计算物品个数的功能。

The balance has the function of counting the number of items.

1 清除秤盘上的物品,按去皮键,使天平显示为"o"。

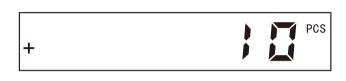




Remove items from Balance and perss the "Tare" that is displayed "0"

2 将需要计数的物品清点10个放在秤盘上,待读数稳定后,按计数PCS键,天平进入计数工作状态,显示"PCS"





Put 10 pieces of the items that need to be counted on the weighing pan. After the reading is stable, press the "PCS" key. The balance enters the working status and display "PCS".

3 此时在秤盘上添加或拿掉若干 个物品,天平自动显示秤盘上 物品的数量。



At this point, add or remove items from the weighing pan. The balance automatically displays the number of items on the weighing pan.

4 如需称重所计数物品的重量,可再按 PCS PCS 中次计数" PCS"键,即回到称重状态并显示对应重量;此时也退出计数功能。



If you need to weigh the weight of the counted items, you can press the counting "PCS" key again to return to the weighing state and display the corresponding weight; at this time, you will also exit the counting function.

### 5 注意事项 Precautions

- ①计数的物品应根据物品的 重量设置不同的样本数,重量 较轻的样品应该使用较大的标本数。
- ②物品单个重量应大于10d, 且计数的物品之间重量差应 小于天平的精度。。
- ③功能的样本数出厂设置为10,还可选择样本数为20,50,100
- ① For items to be counted, different sample sizes should be set based on their weights. Lighter samples should use larger sample sizes.
- ② The individual weight of each item should be greater than 10d, and the weight difference between counted items should be smaller than the precision of the scale.
- ③ The default sample size for counting function is set to 10, but it can also be selected as 20, 50, or 100.

Use and operation of the balance

#### 称重 Weighing

如何操作称重

How to weigh

1 将待测物品放在秤盘上,当稳定标志 "o "出现。」 在屏幕的左上角时,表示数值稳定,此时天平 显示即为物品重量



**18.00** g

Place the item to be tested on the weighing pan. Wait until the stable indicator "o" appears in the upper left corner of the screen.Indicates that the value is stable, and the balance displays the weight of the item at this time.

2 如需在秤盘上称重第二种物品时, 可按去皮TARE键,使天平 显示为"o"。



**1.11** 9

If need weighing the second item on the weighing pan,can press "TARE" key,make the balance display "0" .

3 叠加放上第二种物品,显示值为该物品的重量 put thesecond item on top, and the displayed value will be the weight of the item



4 再按去皮" TARE"键,屏幕显示, "o"则将前面两种物品拿掉,此时 天平显示值为两种物品的总重量





Then press the "TARE" key, the screen will display o, then remove the first two items, and the balance will display the total weight of the two items at this time

5 将秤盘上的物品全部拿掉, 天平显示两物品的总重量。 Remove all items from the weighing pan, the displayed valued is the weighing of the 2items.



# 天平的操作

Operation of the balance

#### 单位转换 Unit conversion

该天平具有十多个称重单位以满足不同国家不同客户的需求

The balance has more than 10pcs weighing units to meet the needs of different customers in different countries

1 清除秤盘上的物品,按去皮TARE键,使天平显示为"o"。

TARE

Remove the items from the weighing pan ,press "TARE" key,make the balance display "0"



 将待测物品放在秤盘上,当稳 定符号 "o"或者 "△"出现在左上角时, 表示读数已经稳定,



**78.00**9

此时天平的显示值即为该物品的重量

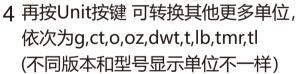
Put the item to be tested on the weighing pan, when the stable sign "o" or " $\triangle$ " appears, it means the value is stable, and it is the actual weight of this item

3 按Unit单位转换键,天平的显示值为克拉单位示值状态。



+ ct

Press the unit key, the display value of the balance is the value of Carat unit.





UNIT

**18.11**9

Then press the Unit key, and the displayed value of the balance will be converted into other units, and the order is: g.ct.oz.ozt.dwt.t.lb.tmr.tl. (Different versions and models display different units.)

输出接口: RS232 输出接口

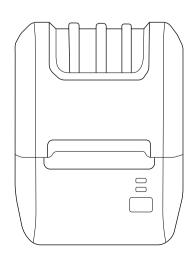
RS232 Output Interface

该天平具有RS232输出接口, 支持连接热敏打印机输出数据等

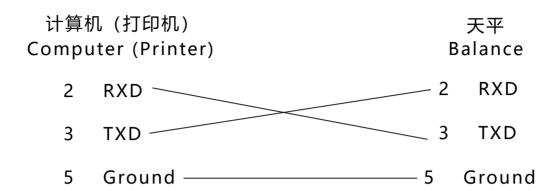
The balance has an RS232 output interface, which supports connecting to a thermal printer to output data, etc.

### 具体详细操作方法请至第9~10页

For specific and detailed operation methods, please refer to pages 9-10



Use and operation of the balance



通讯模式:连续打印(RS-CO),加载稳定打印(RS-St),按键打印1(RS-Pr1),按键打印2(RS-Pr2),指令模式((RS-od),五种模式 默认按键打印1模式,按按键打印

Communication Mode: Continuous printing (RS-CO), Printing after loading stable (RS-St), Key printing 1 (RS-Pr1), Key printing 2 (RS-Pr2), Command mode ((RS-od) Five modes; default key printing 1 mode, press the key to print.

传输方式:串行异步通讯 Transmission method: Serial Transmission

波特率: 2400/4800/9600/19200/38400/115200 默认9600

起始位1位,数据位8位,停止位1位(无校验位)

数据格式: 稳定/不稳定 空格/- 数据 单位符号 回车 换行 1位(ST/US) 1位 7位 3位 1位 1位。

以上字符为ASCII码,7位数据中的一位是小数点。

Baud rate: 2400/4800/9600/19200/38400/115200 bps(bits per second);

Default baud rate of 9600

1 Start Bit, 8 Data Bits, 1 Stop Bit(No parity)

**Data Format:** 

Stable/Unstable(ST/US), Space(-), Data, Unit Symbol, Carriage Return, Line Feed 1bit, 1 bit, 7bits, 3bits, 1 bit, 1 bit

The above characters are ASCII codes,

where one of the 7 bits in the data represents a decimal point.

\_\_\_\_\_

### 不同机型,不同版本,需联系经销商或者厂家

Use and operation of the balance

单位是电子天平显示的单位,3位数据。例如g: 0x67 0x20 0x20

例如: 稳定重量213.45a

0x53 0x54 0x20 0x20 0x32 0x31 0x33 0x2e 0x34 0x35 0x67 0x20 0x20

不稳定重量213.45g

0x55 0x53 0x20 0x20 0x32 0x31 0x33 0x2e 0x34 0x35 0x67 0x20 0x20

稳定重量-213.45g

0x53 0x54 0x2d 0x20 0x32 0x31 0x33 0x2e 0x34 0x35 0x20 0x20 0x67

不稳定重量-213.45g

0x55 0x53 0x2d 0x20 0x32 0x31 0x33 0x2e 0x34 0x35 0x67 0x20 0x20

Unit is the unit displayed by the electronic balance, 3 bits.

For example q: 0x67 0x20 0x20

For example:

Stable weight 213.45g

0x53 0x54 0x20 0x20 0x32 0x31 0x33 0x2e 0x34 0x35 0x67 0x20 0x20

Unstable weight 213.45g

0x55 0x53 0x20 0x20 0x32 0x31 0x33 0x2e 0x34 0x35 0x67 0x20 0x20

Stable weight-213.45g

0x53 0x54 0x2d 0x20 0x32 0x31 0x33 0x2e 0x34 0x35 0x20 0x20 0x67

Unstable weight - 213.45g

0x55 0x53 0x2d 0x20 0x32 0x31 0x33 0x2e 0x34 0x35 0x67 0x20 0x20

#### 计算机连接时:

在通讯模式为指令模式 (RS-od) 时, 计算机发送50H指令, 要求天平发送一次数据。

计算机发送5AH指令(任意模式), 天平进行一次置零功能并发送字符 "Z"

计算机发送54H指令(任意模式),天平进行一次去皮功能并发送皮重数据。 计算机发送74H指令(任意模式),天平进行一次去皮功能并发送字符"t"

计算机发送55H指令(任意模式),要求天平切换一次称重单位并发送字符 "U"

#### Connect the computer:

When the communication mode is command mode (RS-od),

the computer sends a 50H command, requiring the balance to send data once.

The computer sends the 5AH command (any mode),

the balance performs a zero function and sends the character "Z".

The computer sends the 54H command (any mode),

and the balance performs a tare function and sends the tare data.

The computer sends the 74H command (any mode),

and the balance performs a tare function and sends the character "t".

The computer sends the 55H command (any mode),

requiring the balance to switch the weighing unit once and send the character "U".

### 故障检修 Troubleshooting

故障现象 Fault phenomenon	引起原因 Cause	解决办法 Solution
显示不亮 Display not show	电源未接通 Power is not connected	检查电源与充电器 Check power and charger
显示"L" Display"L"	秤盘没有放好 The weighing pan is not placed	重新放置秤盘 Reposition the Weighing pan
	天平没有校准 The balance is not calibrated	重新校准天平 Recalibrate the balance
显示"H"	超重 Overweight	拿掉秤盘上的物品 Remove the Items from the pan
Display "H"	天平校准出错 Balance calibration error	重新校准天平 Recalibrate the balance
显示值不稳定 Unstable display value	秤盘没有放好 The weighing pan not placed well	重新放置秤盘 Reposition the weighing pan
	有振动或气流 There is vibration or airflow	选择合适的环境 Choose the right environment
显示值误差大 Large display value error	称重前没去皮 Not tare before weighing	使用前先去皮 Please tare before use
	天平没有校准 Balance is not calibrated	重新校准天平 Recalibration the balance
显示LO Display "LO"	电量不足 Low battery	关机充电12小时 Turn off and charger for 12 hours

- 1.用户在使用中,尽量不要长时间充电。
- 1.Please don't to charge for a long time during use the scales
- 2. 用户在买到电子天平后即可正常充电,尽量每次将电子天平电量使用出现低电报警滴滴或者显示(LO),即可正常连接充电器充电,当电子天平提示充满后,即可断开电子天平连接,即使连接12小时,也是没有什么用的。
- 2. Charging properly when you receives the scales and ready to use it.If the "di di di" low battery alarm sounds or the "Lo" symbol appears on the screen, it is necessary to connect the charger to recharge. Disconnect the charger when the charging indicator in the lower left corner of the screen show green color
- 3.建议您尽量避免长时间边充边用,此时电子天平电池发热加剧, 高温下长时间充放电,会加速电池老化。
- 3.Avoid using the balance while charging for long periods of time. This will cause the temperature of the batteries in the balance to rise, thus accelerating the deterioration of the batteries and reduced service life

温馨提示: 电池属于消耗品, 随着充电次数增加, 电池的实际容量会减少。

产品名称:		发票号码:
型	号:	购买日期:
仪器编号:		分 销 商: (电 话):
保修记录:		

保修证	心求:

	日期	故障情况
1		
2		
	修理人	修理计划
1		
2		

对于本公司生产和销售的产品, 凭产品保修卡和购货发票, 本公司将向您提供:

- 1. 一年免费保修期,在保修期内,凡属正常使用范围内出现的生产质量问题,经本公司检查确定后,免费给予修理或调换。
- 2. 下列情况不属于免费服务范围:

①用户自行维修或非本公司指定维修点维修而造成破坏;②无购货发票、涂改发票和无产品保修卡的;③如电压异常、水(火)等外部因素而造成的损坏;④未按说明书要求而造成的损坏;⑤因不可抗拒的因素而造成损失的。

上述情况, 本公司不负产品质量责任, 可按价进行修理。

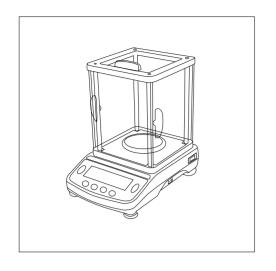
Product Name:	Invoice No.:
Model:	Purchase Date:
Serial number:	Distributor: ( Phone) :
Repair record:	( I HOHE ) .

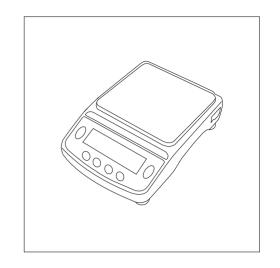
Date	Fault conditions
1	
2	
Repairer	Repair plan
1	
2	

For the products produced and sold by our company, with the warranty card and purchase invoice, we will provide you with:

- 1. One-year free warranty period. During the warranty period, all production quality problems that occur within the normal use will be repaired or replaced free of charge after our inspection and confirmation.
- 2. The following situations do not belong to the scope of free services:
- 1. Damage caused by user repairs or repairs agent not designated by us
- 2. No purchase invoice or warranty card or altered invoice
- 3. Damage caused by external factors such as abnormal voltage(Or Water/Fire)
- 4. Damage caused by failure to follow the instructions
- 5.Loss caused by irresistible factors

In the above situation, we are not responsible for product quality and can repair at a price



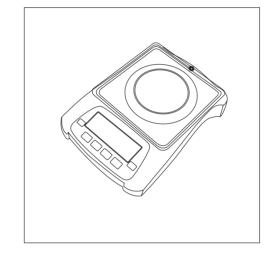


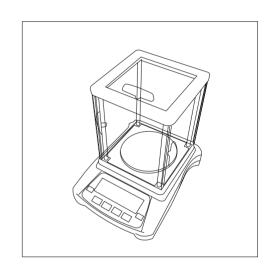
DJ-A GLASS COVER (0.01g/0.001g)

DJ-A ACRYLIC COVER (0.01g)

DJ-B SQUARE PAN (0.1g/0.01g)







PN-B SQUARE PAN (0.01G/0.1G)

PN-A ROUND PAN (0.01G)

PN GLASS COVER (0.01g/0.001g)

# SUITABLE FOR DJ/PN SERIES 适用于DJ/PN系列

# 感谢您的明智之选 Thank you for your wise choice