
ES-HB Series Manual

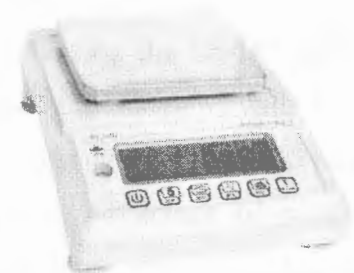
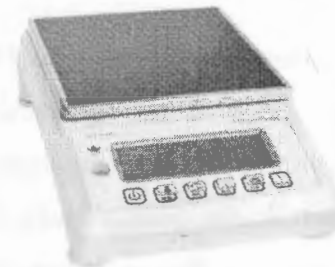
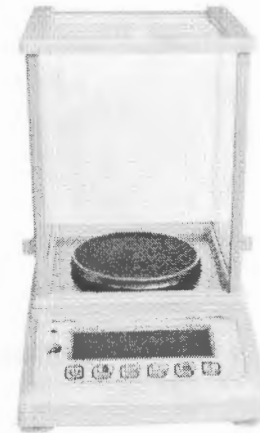
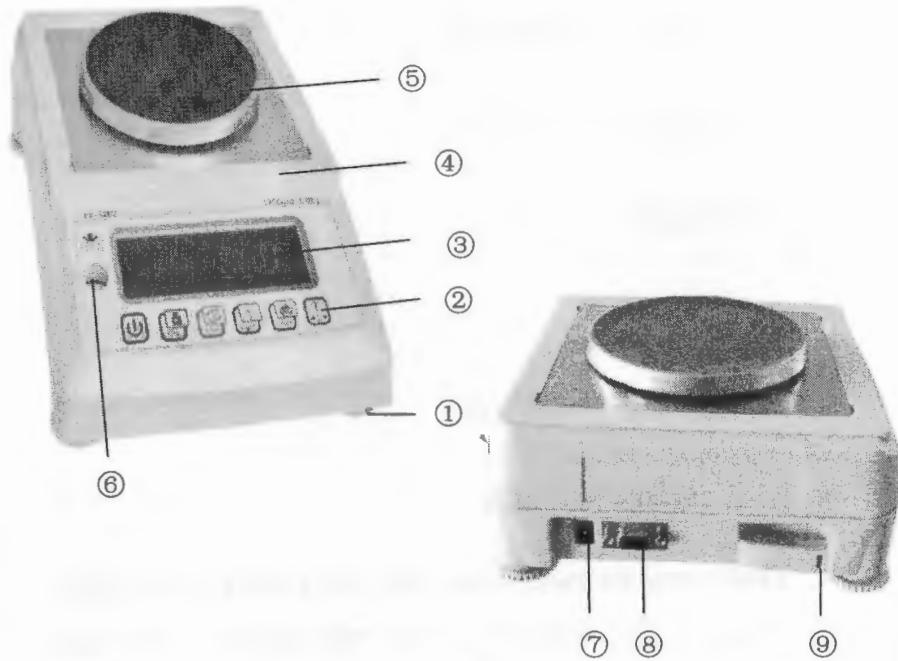


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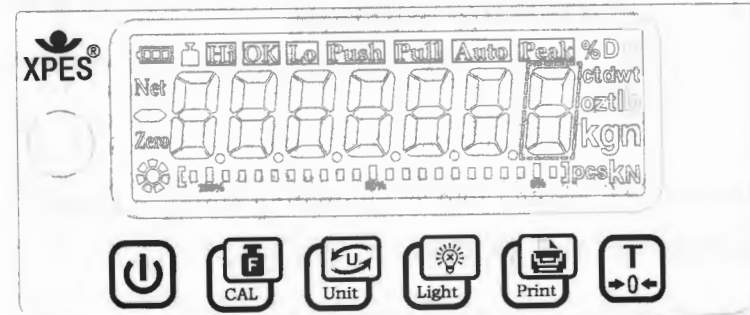
Thank you for purchasing and using the ES-HB series balances, The balances weigh and measure with high precision load cell, microcomputer and big liquid crystal display screen, which have the advantage of simple operation, speedy weighing, accuracy, stability, and so on, please read this manual carefully before using this product, in order to make full use of this product with the function and the Troubleshooting to help you.

1. structure diagram



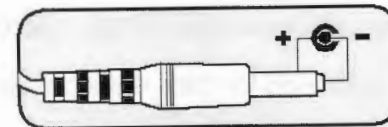
code	name	code	name
1	adjust foot	2	Key
3	Display	4	platform
5	Level	6	The power socket
7	RS232C interface	8	Kensington lock hole

2. Display and key



KEY	FUNCTION	ASCII CODE
	ON/OFF the machine	0x4F+0x0D+0x0A
	Calibrate the machine	0x43+0x0D+0x0A
	Exchange units	0x55+0x0D+0x0A
	Backlight mode switch	0x4D+0x0D+0x0A
	Date print	0x50+0x0D+0x0A
	Zero and tare	0x54+0x0D+0x0A




3. Adaptor




DC 6V/200mA adaptor

4. Operation

4.1. ON/OFF the machine



With no load on the platform, Put the round plug of AC adapter into the square hole on the back of the balance, then put AC adapter into an alternating outlet, or install 6 alkaline batteries **AA SIZE** in the battery holder at the bottom of the balance (pay attention to the Plus(+) and minus(-) ends), press the “” key to turn on the balance, and the balance will display the capacity and division, and then “0” will show, Press “” to zero, and Normal weighing can be started on, Press “” to turn off the balance.

4.2. weighing method




With no load on the platform, Press “” to zero, and the balance will display “0”, Put the object on the platform. Wait until the unit “g” appears and the reading value becomes stable, then the weight can be read.

4.3. Calibration

4.3.1. Sensitivity calibration






First, take away the object from the platform. Then, press “” key, the balance will display “CAL” and then press “” key, “0.00” will show and then the calibrating weight value will be shown, put the corresponding calibrating weight on the center of the platform according to the shown weight value. In a few seconds the display will stop, and meanwhile the calibrating weight value will be shown, indicating that calibration is over. Normal weighing can be started on. and the percentage of the state will increase from 0% to 100%, indicating that calibration is over. Normal weighing can be started on.

4.3.2. Linear calibration

First, take away the object from the platform. Then, press “” key, the balance will display “CAL” and then press “” key switch to “LINE”, Then press “” key and “0.00” will show and then the calibrating weight value will be shown, put the corresponding calibrating weight on the center of the platform according to the shown weight value. In a few seconds, the display will stop, and the percentage





of the state will increase from 0% to 100%, indicating that calibration is over. Normal weighing can be started on.


4.4. Counting Function (pcs)

Press " " key to switch to "pcs", and the balance enters the counting state. If you need resample for counting, please take away the object from the platform, and press " " key, the balance will display "0", then press " " key, "PCS=xxx" will display, "xxx" indicate the quantity value of samples, and press " " key to change the quantity value, then put the same quantity sample on the platform, then press " " key to confirm, when the reading value becomes stable, Normal counting and weighing can be started on.

NOTE: If the balance displays "no", that indicates the samples' weight is too light.


4.5. Percentage Setting Function

Press " " key to switch to "%" and enter percentage weighing; if you need resample, please take away the object from the platform, and press " " key to display "0", then press " " key to display "PEr=xxx", and "xxx" indicates the percentage value of sample, press " " key to change the


value, and put the same percentage samples on the centre of platform, press " " to confirm, when the reading value becomes stable, Normal percentage and weighing can be started on.

NOTE: If the balance displays "no", that indicates the samples' weight is too light.

4.6. backlight function

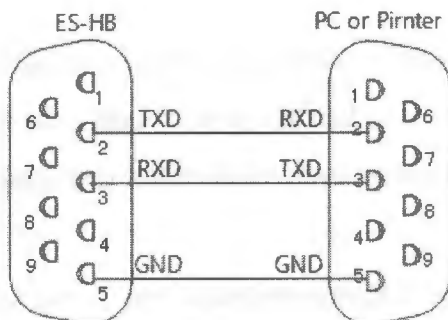
Press " " key to switch backlight, "ON" indicates backlight is always on, "oFF" indicates backlight is always off, and "Auto" indicate backlight is auto.

4.7. Unit Selection

This balance has the function to select these units: g、kg、ct、oz、ozt、lb、l、tl、dwt、gn、pcs、% Press " " to switch.

5. RS-232C Communication

RS-232C RS232C interface: Connecting to PC or printer, Wiring diagram is as follows



Baud rate = 9600bps, check bit = None, data bit =8Bit,
 stop bite=1Bit, input instruction format please read “Key”
 function; output data format: 7 bytes of data code +3 byte unit
 code +2 byte end code, all the characters are ASCII code

6. Troubleshooting

SYMPTOM	PROBABLE CAUSE	REMEDY
No Display	①Power Adapter not connected. ②Batteries are dead.	①Connect power Adapter. ②Replace batteries
Display	Batteries are weak	Replace batteries
Incorrect Weight Reading	①Balance was not set to zero. ②Balance has not been correctly calibrated.	① With no load on the platform, press “”. ②Recalibrate the balance.
Calibration incorrect	Incorrect weights being used	Use correct weights to calibrate.
Err-1	Over load	Stop weighing immediately