

**BALANZAS SERIE 5163
5163 SERIES SCALES
BALANCES DE LA SÉRIE 5163**

REF. - CODE - RÉF. KBD025, KBD026, KBD027, KBD028



Este manual es parte inseparable del aparato por lo que debe estar disponible a todos los usuarios del equipo. Le recomendamos leer atentamente el presente manual y seguir rigurosamente los procedimientos de uso para obtener las máximas prestaciones y una mayor duración del mismo.

This manual should be available for all users of these equipments. To get the best results and a higher duration of this equipment it is advisable to read carefully this manual and follow the processes of use.

Ce manuel est une partie indissociable de l'appareil et doit être mis à la disposition de tous les utilisateurs de l'équipement. Nous vous recommandons de lire attentivement ce manuel et de suivre scrupuleusement les procédures d'utilisation afin d'obtenir des performances maximales et une plus longue durée de vie de l'appareil.

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SAFETY PRECAUTIONS

Verify that the input voltage of the AC adapter matches the local AC supply. Use the scale only in dry locations.

For the best results, use the balance at the temperature specified optimum operating range.

Use the balance with care, loading the objects to be weighed gently onto the centre of the pan. Avoid rough handling will help to prolong the life of your scale.

Not recommended for use in low temperature environments.

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1. INTRODUCTION

The 5163 series precision balances are equipped with a high-precision strain gauge-based load cell, controlled by a microprocessor that optimises stabilisation with high speed and reliability. Their design allows their application in a wide range of sectors, including industrial, agricultural, commercial, educational and scientific, ensuring fast and accurate mass and quantity measurements on a variety of objects.

Technical characteristics:

Code	KBD025	KBD026	KBD027	KBD028
Capacity (g)	100	200	300	500
Calibration weight* (g)	50 (class M1)	100 (class M1)	200 (class M1)	500 (class M1)
Required weights in linear calibration (g)	100, 50, 20	200, 100, 50	300, 200, 100	500, 400, 200
Readability (g)	0.001			
Repeatability (g)	± 0.002			
Linearity (g)	± 0.002			
Units	gr, kg, ct, T, TAR, dr, PKT, GN, TMR, gsm, tJ, mo, dwt, oz, lb, tIT, ozt, tIH, %			
Interface	RS232C			
Plate size (mm)	Ø 90			
Dimensions (mm)	320x195x280			
Weight (kg)	2.6			
Power supply	100-240 VAC 50/60 Hz			



2. PREPARATION

- Place the balance on a flat, stable surface away from vibrations, direct sunlight, air blasts or strong magnetic disturbances, adjust all four feet so that the bubble is in the centre.
- Connect the AC adapter
- Press the “ON/OFF” button, the display shows the zero symbol. The scale enters the weighing state.



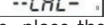
Note: If the display does not show the zero symbol, it means that the balance does not reach the steady state, please move the balance to another place.

3. CALIBRATION

3.1 Single point calibration

- Press the function key “TARE” to clear the readings to “0.0g”.
- Remove all loads from the coil, press and hold the “CAL” button for 3 seconds, release it when  appears on the display.
- When  appears on the display, enter a standard weight (in this example you should enter a weight of 2kg).
- When the display shows the weight figure, you can remove the weight to finish the calibration.

3.2 Multipoint calibration

- Remove all loads from the platter, press and hold the “CAL” button for 3 seconds, release the button when  appears on the screen.
- When  appears on the display press and hold the “PCS” button for 3 seconds, release the button when  appears on the display, place the corresponding standard weight, remove when stable, place the standard weight again until the scale shows “0.0g” to finish the multi-point calibration.



REMARKS:

Table of 5163 Series Calibration Weights

No	Code	One-point calibration	Linear calibration
1	KBD025	50g	100g,50g,20g
2	KBD026	100g	200g,100g,50g
3	KBD027	200g	300g,200g,100g
4	KBD028	500g	500g,400g,200g

4. OPERATION

4.1 Piece count

- Press the “PCS” button, the display shows  ---- 
- Put 10 pieces of an object in the tray (the size, shape and weight of the objects should be equal (deviation <5%, and weight of each pc >d).
- Press the “PCS” button again, wait until the figure on the display stabilises, the scale will start the piece counting mode.
- Press the “PCS” button in piece counting mode, exit piece counting mode.


4.2 Percentage

- The default unit of measurement is “g”, place the reference object on the tray.
- Press the “UNIT” button, until the display shows the unit “%”, the scale will enter the percentage mode.
- Place the required object on the tray, the display will show the percentage according to the reference object.

4.3 Conversion of units

Press the “UNIT” button to select the weighing unit.

4.4 Overload

When the weight of the object exceeds the maximum capacity of the balance, the display will show  , remove the object immediately to avoid damage to the balance.

4.5 Low battery indication

- Press "PCS" and hold down until the scale skips the piece counting procedure, when the display shows **CO--OFF**, the scale will enter low battery mode, "off" will be shown on the display all the time.
- Then press "PCS", the display shows **CO-- 1**, the low battery mode starts (1 indicates 1 second).
- When there is no object on the scale pan and the display shows '0', the display will turn off after 1 second.

4.6 Baud Rate Adjustment (Interface 232)

- Press "PCS" and hold it down, until the scale skips the piece counting procedure, when the display shows **CO--OFF** press the "TAR" button until the display shows **C3-- 2**
- Press the "PCS" button to set BRS.
C3-2----BRS 2400
C3-3----BRS 4800
C3-4----BRS 9600
C3-5----BRS19600

4.7 Print adjustment

- Press and hold "PCS" until the scale skips the piece counting procedure, when the display shows **CO--OFF** press the "TAR" button until the display shows **C5-- 3**
- Press the "PCS" button to set the print mode.
C5-0---- continuous printing
C5-2----keyprinting
C5-3---- print command (connect to computer)

4.8 Display speed

- Press and hold "PCS" until the scale skips the piece counting procedure, when the display shows **CO--OFF**, press the "TAR" button until the display shows **C2-- 2**
- Press the "PCS" button to adjust the speed.

5. ERROR MESSAGES

Error indication	Reason	Solution
Bottom line"---"	Object is not correctly loaded in the balance	Recalibrate the balance
Top line "---"	Overload	Remove the object Re-calibrate the balance