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> Lab Scale 1000gx0.01g Accurate Analytical Balance Digital Electronic Precision Balance Laboratory Scale Jewelry Gold Scale Scientific Scale Kitchen Scale |for Laboratory, Industrial, Business 1kg/0.01g

RUIZHAN RD1002|1kg/0.01g

RUIZHAN Lab Scale 1000gx0.01g User Manual

Model: RD1002|1kg/0.01g

INTRODUCTION

The RUIZHAN Lab Scale 1000gx0.01g is a high-precision analytical balance designed for accurate weighing in various professional and personal settings. Equipped with an upgraded high-sensitivity built-in sensor and a high-performance microcontroller, this scale provides quick and precise measurements. Its robust construction, featuring a stainless steel weighing pan, aluminum alloy base, and durable ABS body, ensures long-term reliability. This manual provides essential information for the proper setup, operation, maintenance, and troubleshooting of your new analytical balance.



Figure 1: Front view of the RUIZHAN Lab Scale, showcasing its compact design and digital display.

SETUP

Unpacking the Balance

Carefully remove all components from the packaging. Ensure all items listed below are present:

- Lab scale unit
- Stainless steel weighing plate
- Calibration weights (1*500g included)
- Power adapter



Figure 2: The RUIZHAN Lab Scale as it appears in its protective packaging.

Placement and Leveling

Place the balance on a stable, level surface free from vibrations, drafts, and direct sunlight. Use the adjustable leveling feet at the bottom of the scale to ensure it is perfectly level. Refer to the built-in level bubble on the front panel for guidance.

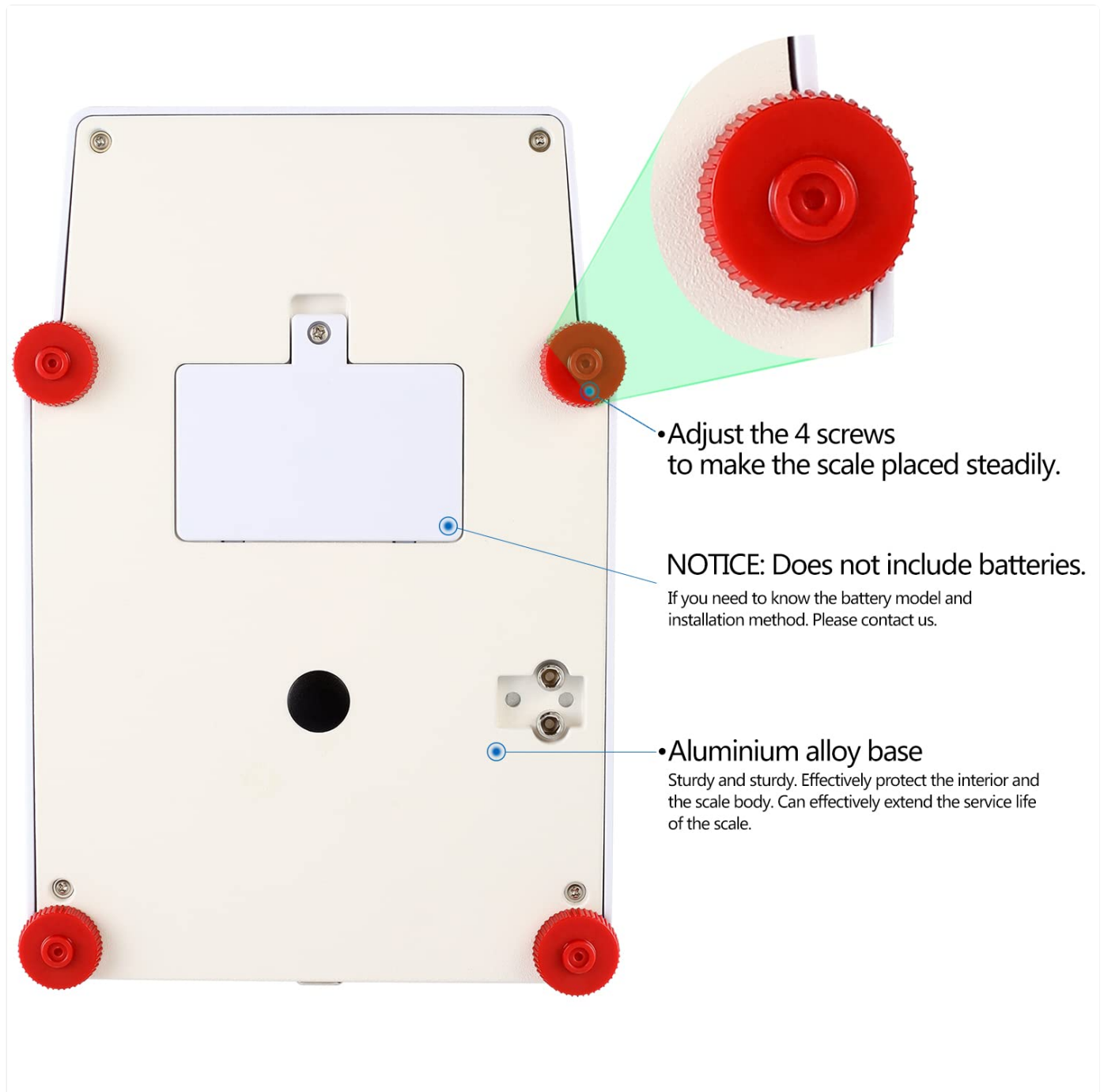


Figure 3: Underside of the scale, highlighting the four adjustable red feet for precise leveling.

Initial Power On

Connect the power adapter to the balance and a suitable power outlet. Press the **ON/OFF** button to turn on the scale. Allow the

scale to warm up for 3-15 minutes for optimal accuracy, especially in environments with temperature fluctuations. The display should show "0.00g" once stable.

OPERATING INSTRUCTIONS

Basic Weighing

1. Ensure the scale is powered on and displays "0.00g".
2. Place the item to be weighed gently on the center of the stainless steel weighing pan.
3. Read the stable weight displayed on the LCD screen.
4. To tare (zero out the weight of a container), place the empty container on the pan and press the **TARE/Menu** button. The display will return to "0.00g", allowing you to weigh only the contents.



Figure 4: Detailed view of the control panel, showing the ON/OFF, Print/Cal, Unit/Pcs, and Tare/Menu buttons.

Unit Conversion

The balance supports multiple weighing units. To switch between units (grams (g), ounces (oz), carats (ct), pounds (lb), GSM, KG, etc.), short press the **Unit/Pcs** button.

Video 1: Demonstration of unit conversion on the RD series electronic balance. This short clip illustrates how to cycle through different measurement units.

Counting Function

To use the counting function:

1. Long press the **Unit/Pcs** button until the display shows a counting sample size (e.g., 10, 20, 50, 100).
2. Place the corresponding number of samples (e.g., 10 pieces) on the pan.
3. Short press **Unit/Pcs** again to confirm the sample size. The scale is now calibrated for counting.
4. Add or remove items, and the display will show the number of pieces.
5. To exit counting mode, short press **Unit/Pcs**.

Video 2: Demonstration of the counting function on the RD series electronic balance. This video shows how to set up and use the piece counting feature.

Data Output (RS232)

The balance is equipped with an RS232 serial port for connecting to a printer or computer to output weighing data. A data cable is not included and must be purchased separately.



RS-232 interface for connecting printers and computers

Note: The product does not include a data cable. Need to buy separately.

Power adapter interface

Figure 5: Rear view of the scale, highlighting the RS232 serial port and the power adapter interface.

Video 3: Demonstration of data output from the RD series electronic balance to a printer. This video shows how weighing data can be printed directly from the scale.

Video 4: Demonstration of data output from the RD series electronic balance to a computer. This video illustrates how weighing data can be transferred to a computer for record-keeping.

CALIBRATION

Regular calibration ensures the accuracy of your balance. A 500g calibration weight is included with your scale.

1. Ensure the scale is placed stably and level.
2. Press and hold the **Print/Cal** button until the display shows "CAL".
3. The display will then show a twinkling weight value (e.g., "500.00g"). Place the corresponding calibration weight (e.g., 500g) onto the center of the weighing pan. The balance will automatically recognize and calibrate the current weight.
4. Wait approximately 3 seconds until the number stops flashing. Remove the calibration weight. The scale should display "0.00" (for 0.01g scale) or "0.0" (for 0.1g scale), indicating successful calibration. If the balance does not reset to zero,

repeat the operation.

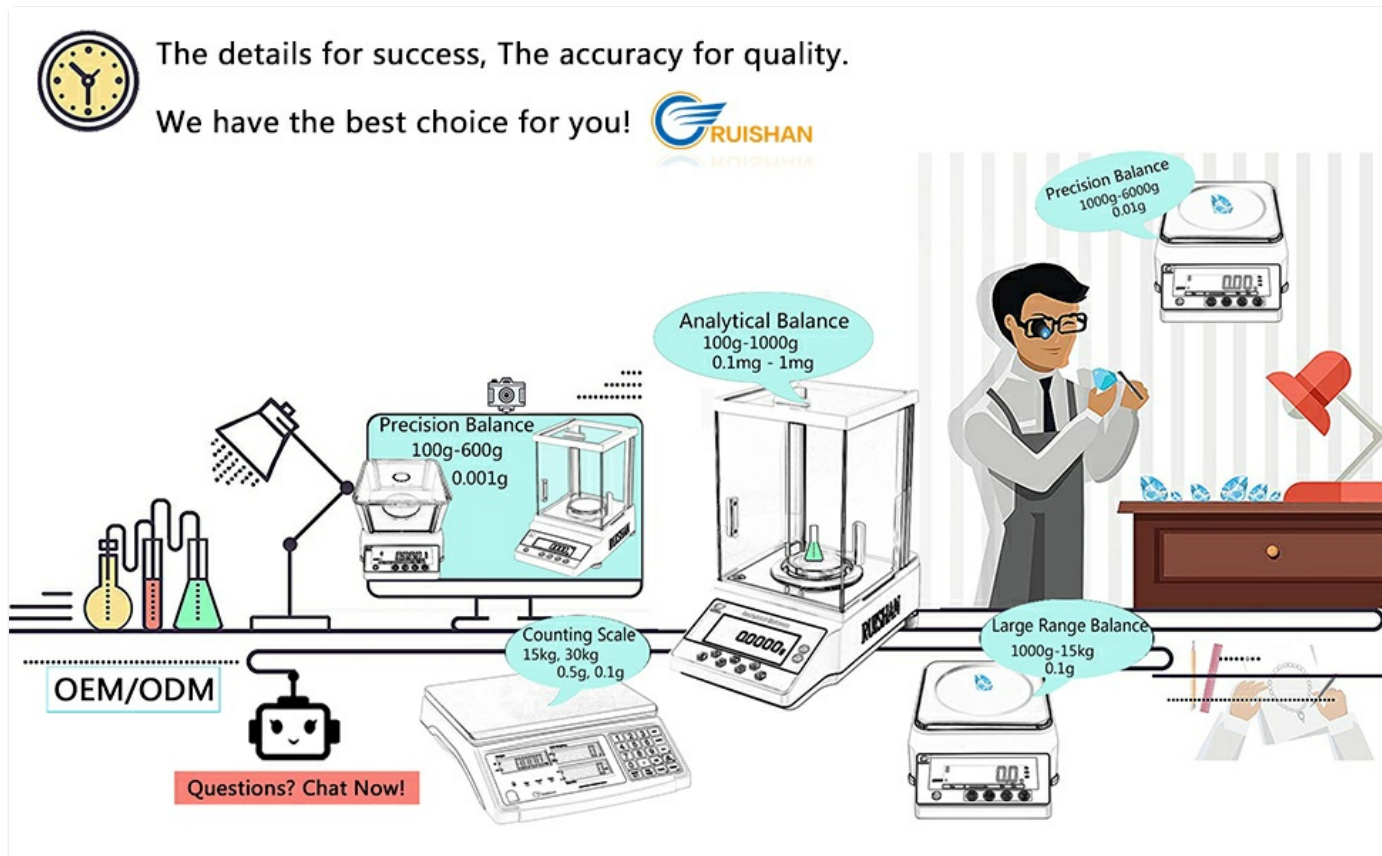


Figure 6: Visual guide for the calibration steps of the analytical balance.

Video 5: Demonstration of the calibration process for the RD series electronic balance. This video guides users through calibrating the scale for accurate measurements.

MAINTENANCE

Cleaning

To maintain accuracy and prolong the life of your balance:

- Wipe the stainless steel weighing pan and the ABS body with a soft, damp cloth.
- Do not use abrasive cleaners or solvents, as they may damage the surface or internal components.
- Ensure no liquids enter the internal parts of the scale.

Storage

When not in use, store the balance in a dry, stable environment away from extreme temperatures, humidity, and direct sunlight. Keep the weighing pan clean and free of debris.

TROUBLESHOOTING

This section addresses common issues you might encounter with your RUISHAN Lab Scale.

Problem	Possible Cause	Solution
Inaccurate readings	Scale not level, needs calibration, unstable surface, drafts.	Adjust leveling feet, perform calibration, move to a stable location, shield from drafts.

Problem	Possible Cause	Solution
Scale does not turn on	Power adapter not connected, power outlet issue, no batteries (if applicable).	Check power adapter connection, try a different outlet, ensure batteries are installed if operating without adapter (Note: Product does not include batteries).
Display shows "OVERLOAD"	Weight on pan exceeds maximum capacity.	Remove excess weight immediately to prevent damage.
Display shows fluctuating readings	Vibrations, air currents, unstable surface, electromagnetic interference.	Ensure stable surface, eliminate drafts, move away from electronic devices.

SPECIFICATIONS

Feature	Detail
Product Dimensions	11 x 7.5 x 3 inches
Item Model Number	RD1002 1kg/0.01g
Weight	6.02 Pounds
Manufacturer	RUISHAN
Country of Origin	China
Brand	RUISHAN
Color	White Blue
Recommended Uses	Coins, Jewelry, Herbs, Powders, Gemstones, Metals
Special Feature	Auto Shut Off or Manual Shutdown
Display Type	LCD
Accuracy	0.01g (10mg)
Stabilization Time	≤5s
Linearity Error	±0.02g
Pan Dimensions	170*170 mm
Pan Material	Stainless steel

WARRANTY AND SUPPORT

RUISHAN stands behind the quality of its instruments. This product comes with a 1-year warranty from the date of purchase. For any questions, technical assistance, or warranty claims, please refer to the contact information provided in your product packaging or visit the official RUISHAN website. Detailed user instructions are also available for further reference.

