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> GOYOJO High Precision Lab Analytical Balance User Manual

GOYOJO GY50002

GOYOJO High Precision Lab Analytical Balance User Manual

Model: GY50002

1. INTRODUCTION

This user manual provides comprehensive instructions for the GOYOJO GY50002 High Precision Lab Analytical Balance. Designed for accuracy in laboratories, research facilities, pharmaceutical industries, and for precision-oriented hobbyists, this balance is a reliable tool for precise measurements. Please read this manual thoroughly before operating the device to ensure proper use, optimal performance, and longevity.



Image 1.1: The GOYOJO GY50002 High Precision Lab Analytical Balance, featuring a stainless steel weighing plate and a clear digital display.

The GOYOJO GY50002 model ensures high accuracy with a 5000g capacity and 0.01g precision, suitable for demanding scientific measurements. Its robust construction, featuring a tough stainless steel weighing plate and ABS housing, ensures longevity and durability.

WIDE RANGE OF APPLICATIONS

Widely used in fields such as chemical laboratories, pharmaceutical research and manufacturing, biological research, environmental monitoring, food science and quality control.



Image 1.2: Illustration showing the wide range of applications for the GOYOJO Lab Balance, including chemical laboratories, pharmaceutical research, environmental monitoring, and food science.

2. PRODUCT FEATURES

- **High Precision Weighing:** Offers a maximum capacity of 5000g with a readability of 0.01g, suitable for demanding scientific measurements.
- **Durable Construction:** Built with a high-quality stainless steel weighing plate and robust ABS housing for long-term reliability.
- **Versatile Measurement Units:** Supports multiple units including grams (g), carats (ct), ounces (oz), and pounds (lb), adapting to various measurement needs.
- **User-Friendly Interface:** Features a large, bright LED display for easy reading and intuitive buttons

for functions like weighing, tare, and piece counting.

- **Rapid & Consistent Readings:** Utilizes a high-precision strain gauge load cell for quick stabilization (less than 3 seconds) and consistent results.



Image 2.1: Diagram illustrating the "Smart Load Cell" technology, highlighting its role in improving efficiency and accuracy with 0.01g readability and a reading time of less than 3 seconds.

3. SAFETY INFORMATION

To ensure safe and proper operation of your analytical balance, please observe the following safety guidelines:

- Always place the balance on a stable, level, and vibration-free surface.

- Avoid placing the balance near strong electromagnetic fields, heat sources, or direct sunlight.
- Do not expose the balance to extreme temperatures or high humidity.
- Keep the balance away from strong air currents or drafts, which can affect measurement accuracy.
- Use only the specified power adapter or appropriate batteries (4 AA dry batteries).
- Do not overload the balance beyond its maximum capacity of 5000g.
- Keep liquids and corrosive substances away from the balance to prevent damage.
- Unplug the balance from the power source when not in use for extended periods or during cleaning.

4. PACKAGE CONTENTS

Upon unpacking, please verify that all components are present and undamaged:

- GOYOJO GY50002 Lab Analytical Balance Unit
- Stainless Steel Weighing Plate
- Power Adapter (for plugin operation)
- User Manual (this document)

Note: AA dry batteries are not included and must be purchased separately if battery operation is desired. Calibration weights are also not included.

5. SETUP

1. **Unpacking:** Carefully remove the balance and all accessories from the packaging. Retain the packaging for future storage or transport.
2. **Placement:** Place the balance on a firm, level, and stable surface, free from vibrations, drafts, and direct sunlight. Ensure the surface is clean and dry.
3. **Leveling:** The balance is equipped with adjustable feet and a bubble level (usually located near the display). Rotate the adjustable feet until the bubble is centered within the circle, indicating the balance is perfectly level. This is crucial for accurate measurements.
4. **Power Connection:**
 - **AC Power:** Connect the provided power adapter to the DC input port on the back of the balance, then plug it into a suitable power outlet.
 - **Battery Power:** If using batteries, open the battery compartment on the underside of the balance and insert 4 AA dry batteries, ensuring correct polarity.
5. **Initial Power On:** Press the **ON/OFF** button to turn on the balance. The display will typically show "0.00g" after a brief self-check.

6. OPERATING INSTRUCTIONS

6.1. Power On/Off

- To turn on the balance, press the **ON/OFF** button.
- To turn off the balance, press and hold the **ON/OFF** button for a few seconds until the display turns off.

6.2. Basic Weighing

1. Ensure the balance is on a stable surface and displaying "0.00g". If not, press the **TARE/CAL** button to zero the display.
2. Gently place the item to be weighed on the center of the stainless steel weighing plate.
3. Wait for the reading to stabilize (indicated by a stable reading on the display, usually within 3 seconds).
4. Read the weight displayed on the LED screen.

6.3. Tare Function

The tare function allows you to subtract the weight of a container or other object, so only the net weight of the substance inside is measured.

1. Place the empty container on the weighing plate. The display will show its weight.
2. Press the **TARE/CAL** button. The display will reset to "0.00g".
3. Add the substance you wish to weigh into the container. The display will now show only the weight of the substance.



Product Specifications

Model :	GY50002
Readability:	0.01g
Max. Capacity:	5000g
Units:	Multiple
Taring:	Yes
Piece Counting:	Yes
Calibration :	Calibration weight (not included)

Image 6.3.1: Visual demonstration of the Tare Function, showing the process of weighing a container, taring the balance, and then weighing the net content.

6.4. Unit Switching

The balance supports multiple units of measurement.

- To switch between units (g, ct, oz, lb), press the **UNIT** button repeatedly until the desired unit is displayed.

UNIT SWITCHING

※ Provides multiple mass units for switching
Accuracy 0.01g, Maximum Capacity 5000g



Image 6.4.1: The display of the GOYOJO balance showing various unit indicators, demonstrating the unit switching capability for different mass units.

6.5. Piece Counting

This function allows you to count a large number of small, identical items by weight.

1. Ensure the balance is displaying "0.00g".
2. Press the **PCS** button. The display may show a prompt like "10 PCS" or "20 PCS".
3. Place a known quantity of items (e.g., 10, 20, 50, or 100 pieces) on the weighing plate, corresponding to the displayed prompt.
4. Press the **PCS** button again to confirm the sample quantity. The balance will now calculate the average weight per piece.

5. Remove the sample pieces. The display should return to "0 PCS".
6. Place the bulk quantity of items you wish to count on the weighing plate. The display will show the total number of pieces.

Note: For accurate piece counting, ensure every sample object has a consistent weight. Individual differences should be within 5%.

PIECE COUNTING

※ In counting mode, ensure every sample objects have consistent weight (at least individual differences must be within 5%).

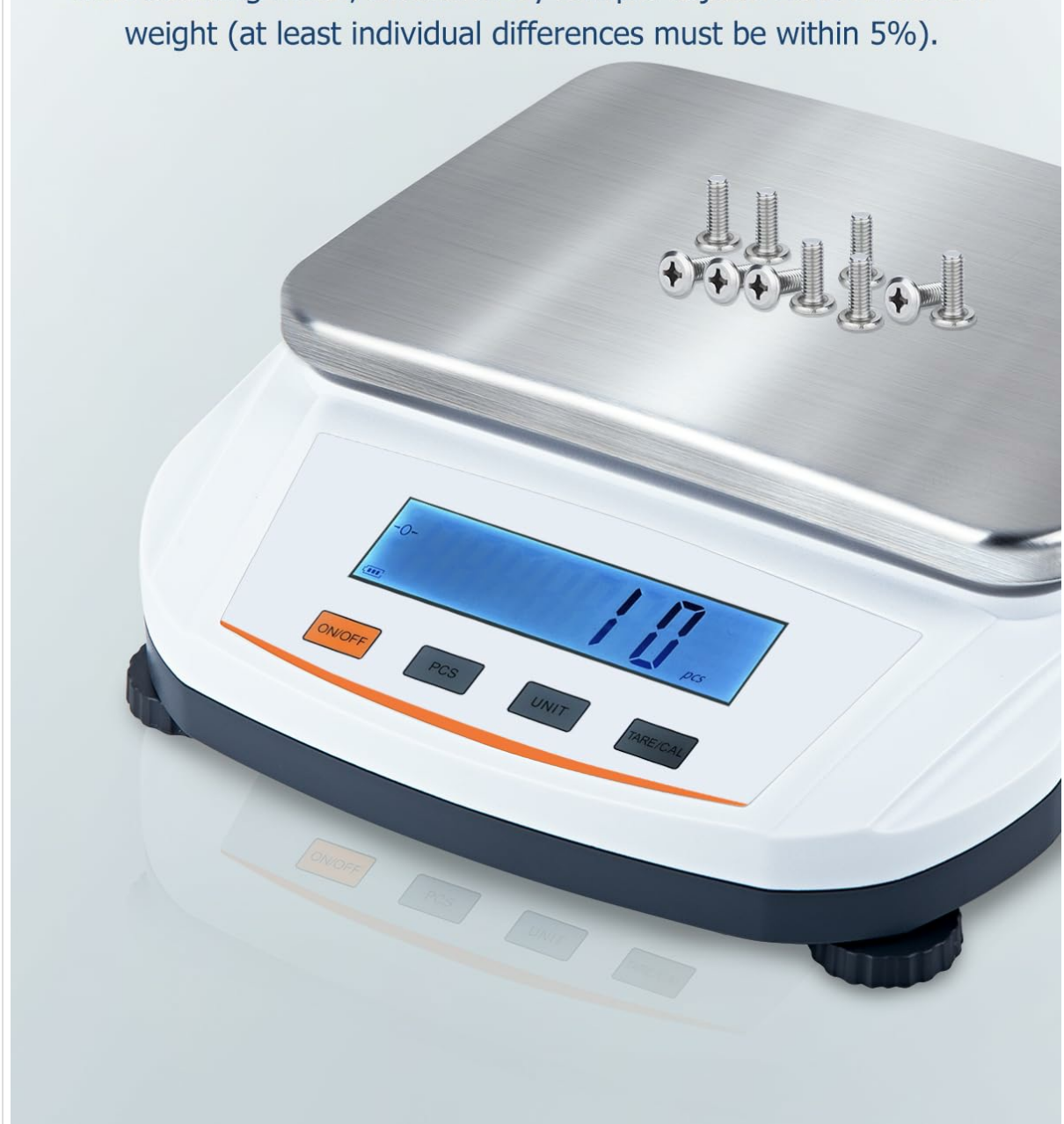


Image 6.5.1: The GOYOJO balance displaying "10 pcs" with small screws on the weighing plate, illustrating the piece counting function.

6.6. Calibration

Regular calibration ensures the accuracy of your balance. This model requires an external calibration weight (not included).

1. Ensure the balance is on a stable surface and powered on.
2. Refer to the specific calibration procedure outlined in the quick start guide or on the device itself, as procedures can vary. Typically, this involves pressing and holding the **TARE/CAL** button until "CAL" appears, then placing the specified calibration weight on the plate.
3. Follow the on-screen prompts to complete the calibration process.
4. Once calibration is complete, the balance will return to normal weighing mode.

7. MAINTENANCE

- **Cleaning:**
 - Wipe the stainless steel weighing plate and ABS housing with a soft, damp cloth.
 - Do not use abrasive cleaners, solvents, or immerse the balance in water.
 - Ensure the balance is unplugged before cleaning.
- **Storage:** When not in use for extended periods, store the balance in a dry, dust-free environment, ideally in its original packaging.
- **Battery Replacement:** If using battery power and the display indicates low battery, replace all 4 AA batteries with new ones, ensuring correct polarity.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Balance does not turn on.	No power, dead batteries, or faulty power adapter.	Check power connection. Replace batteries if using battery power. Ensure power outlet is functional.
Inaccurate or unstable readings.	Balance not level, unstable surface, drafts, vibrations, or needs calibration.	Ensure balance is level using the bubble indicator. Place on a stable, vibration-free surface. Avoid drafts. Perform calibration.
"O-Ld" or "EEEE" displayed.	Overload. Weight exceeds maximum capacity.	Remove excess weight immediately. Do not exceed 5000g.
Display shows "UNST" or fluctuating numbers.	Unstable environment (vibrations, air currents) or balance not settled.	Ensure stable environment. Wait for balance to stabilize before taking a reading.

9. SPECIFICATIONS

Parameter	Value
Model	GY50002
Max. Capacity	5000g
Readability	0.01g
Tare Range	0-5000g

Parameter	Value
Response Time	<3s
Weighing Plate Size	160x125mm
Balance Dimensions (LxWxH)	220x220x80mm (8.66 x 8.66 x 3.14 inches)
Units	g / ct / oz / lb
Power Source	4 AA Dry Batteries or Plugin
Operating Temperature	5-35°C
Relative Humidity	50-85%
Display Type	LED
Special Features	Backlit Display, Strain Gauge Load Cell

10. WARRANTY AND SUPPORT

The GOYOJO GY50002 Lab Analytical Balance is protected by a **1-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For warranty claims, technical support, or any inquiries regarding your product, please contact GOYOJO customer service through the retailer's platform or the official GOYOJO website. Please have your model number (GY50002) and proof of purchase ready when contacting support.

GOYOJO is committed to resolving any issues that may arise during the warranty period and ensuring your satisfaction with the product.
