

Sartorius BCE 2202-1S

Sartorius Entris II Compact Precision Scale Lab Balance

MODEL: BCE 2202-1S USER MANUAL

1. Introduction

This manual provides essential instructions for the proper setup, operation, and maintenance of your Sartorius Entris II Compact Precision Scale Lab Balance, model BCE 2202-1S. This high-precision weighing system is designed for laboratory applications, featuring a high-resolution color touchscreen display, RS-232, and USB interfaces, and requiring external calibration for accurate measurements.

Please read this manual thoroughly before using the device to ensure safe and correct operation and to achieve optimal performance.

2. Safety Instructions

- Always operate the balance on a stable, level surface free from vibrations.
- Ensure the power supply matches the specifications indicated on the device.
- Avoid exposing the balance to extreme temperatures, direct sunlight, or strong air currents.
- Do not disassemble the balance; refer servicing to qualified personnel.
- Keep the weighing pan and surrounding area clean and free from debris.
- Use only original Sartorius accessories and spare parts.

3. Product Overview

The Sartorius Entris II BCE 2202-1S is a compact laboratory balance designed for precise measurements. Key components include the weighing pan, a high-resolution color touchscreen display, and intuitive control buttons.



Figure 1: Front view of the Sartorius Entris II Compact Precision Scale Lab Balance. This image displays the balance with its stainless steel weighing pan, the digital display showing '0.00 g', and control buttons below the display, including power and tare functions. The Sartorius logo is visible on the front panel.



Figure 2: Side view of the Sartorius Entris II Compact Precision Scale Lab Balance with indicated dimensions. The image shows the balance from an angled perspective, highlighting its compact form factor. Dimensions are marked as approximately 8.66 inches in width, 7.56 inches in depth, and 2.13 inches in height.

4. Setup

1. **Unpacking:** Carefully remove the balance and all accessories from the packaging. Retain the original packaging for future transport or storage.
2. **Placement:** Place the balance on a firm, level, and vibration-free surface. Ensure it is away from direct heat sources, air conditioning vents, and open windows to prevent measurement inaccuracies caused by temperature fluctuations or drafts.

3. **Leveling:** Use the adjustable feet at the base of the balance to level the device. Adjust until the air bubble in the spirit level (usually located near the display) is centered.
4. **Power Connection:** Connect the provided power adapter to the balance and then to a suitable power outlet.
5. **Initial Calibration:** This model requires external calibration. Refer to Section 5.4 for detailed calibration procedures before first use to ensure accurate measurements.

5. Operating Instructions

5.1 Power On/Off

Press the **Power** button (usually marked with a circle and a vertical line) to turn the balance on or off. Allow a brief warm-up period for stable readings after powering on.

5.2 Basic Weighing

1. Ensure the weighing pan is empty and the display shows '0.00 g'. If not, press the **Zero** button.
2. Carefully place the item to be weighed onto the center of the weighing pan.
3. Wait for the reading to stabilize (a stability indicator, often a small circle or arrow, will appear on the display).
4. Read the weight displayed on the screen.

5.3 Taring

Taring allows you to subtract the weight of a container, so only the net weight of the sample is measured.

1. Place the empty container onto the weighing pan.
2. Press the **Tare** button (usually marked with a 'T' or '→0←'). The display will reset to '0.00 g'.
3. Add the sample to the container. The display will show the net weight of the sample.

5.4 External Calibration

External calibration ensures the accuracy of your balance. This procedure requires a certified calibration weight appropriate for the balance's capacity (e.g., 2000g for a 2220g balance).

1. Ensure the balance is leveled and has been warmed up for at least 30 minutes.
2. Access the calibration menu via the touchscreen display. (Consult the on-screen prompts or the full Sartorius user manual for specific menu navigation).
3. Follow the on-screen instructions to initiate the external calibration process.
4. When prompted, place the specified calibration weight onto the center of the weighing pan.
5. Wait for the balance to complete the calibration process.
6. Remove the calibration weight when instructed. The balance will return to normal weighing mode.

6. Maintenance

6.1 Cleaning

- Disconnect the balance from the power supply before cleaning.
- Clean the weighing pan and housing with a soft, damp cloth and a mild detergent.
- Do not use abrasive cleaners, solvents, or harsh chemicals, as these can damage the display or housing.
- Ensure no liquids enter the balance housing.

6.2 Care

- Handle the balance with care; avoid dropping or subjecting it to shocks.
- Regularly check the leveling of the balance.
- Perform periodic external calibrations to maintain accuracy.

7. Troubleshooting

- **Unstable Readings:** Check for drafts, vibrations, or temperature fluctuations. Ensure the balance is level.
- **Display Error Message:** Refer to the full Sartorius user manual for specific error codes. Often, a power cycle (turning off and on) can resolve minor issues.
- **Balance Not Powering On:** Check the power cable connection and the power outlet. Ensure the power adapter is functioning correctly.
- **Inaccurate Readings:** Perform an external calibration (refer to Section 5.4). Ensure the weighing pan is clean and correctly seated.

If problems persist, contact Sartorius customer support or an authorized service technician.

8. Specifications

Feature	Specification
Model	BCE 2202-1S
Brand	Sartorius
Maximum Capacity	2220 g
Readability (Resolution)	0.01 g
Display Type	High-resolution color touchscreen
Calibration Type	External
Interfaces	RS-232, USB
Item Weight	14 Pounds
Date First Available	November 21, 2016

9. Warranty and Support

For warranty information, technical support, or service inquiries, please refer to the official Sartorius website or contact your authorized Sartorius dealer. Keep your purchase receipt and product serial number readily available when contacting support.



Comprehensive operating instructions for Sartorius CP | Gemplus Series electronic micro-, analytical, and precision balances, including CPA, GCA, and GPA models. Covers installation, operation, configuration, application programs, troubleshooting, maintenance, and specifications.



Comprehensive user manual for Sartorius Secura, Quintix, and Practum laboratory balances. Details installation, operation, safety guidelines, various weighing applications, system settings, and technical specifications for precise laboratory measurements.



Guida completa alle istruzioni per l'uso delle bilance elettroniche Sartorius CP e Gemplus (modelli CPA, GCA, GPA). Copre installazione, funzionamento, impostazioni, manutenzione e specifiche tecniche.

Sartorius Lab Balance Cross-Reference Guide: Find Your Perfect Model

Compare Sartorius lab balance models across Cubis MSE, Secura, Quintix, Practum, and Entris series. Find replacement models and FS catalog numbers for your laboratory weighing needs.



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Comprehensive operating instructions for Sartorius CP | Gemplus Series electronic micro-, analytical, and precision balances, including CPA, GCA, and GPA models. Covers installation, operation, configuration, application programs, and maintenance.