U.S. Solid USS-DBS00059

U.S. Solid Digital Precision Lab Scale 15KG x 0.1g (Model USS-DBS00059) Instruction Manual

Electronic Balance with 150x180 mm Stainless Steel Weighing Pan

1. Introduction

This manual provides comprehensive instructions for the proper setup, operation, maintenance, and troubleshooting of your U.S. Solid Digital Precision Lab Scale, Model USS-DBS00059. This electronic balance is designed for accurate weighing in various applications, offering a maximum capacity of 15KG with a readability of 0.1g. It features a durable stainless steel weighing pan, multiple measurement units, AC/DC power options, and essential functions such as counting and tare.

Please read this manual thoroughly before using the scale to ensure correct operation and to maximize its lifespan.

2. Safety Precautions

- Operate the scale on a stable, level, and vibration-free surface.
- Avoid placing the scale near strong electromagnetic fields, heat sources, or direct sunlight.
- Do not expose the scale to extreme temperatures or humidity.
- Use only the provided AC adapter or specified DC batteries.
- Keep the weighing pan and surrounding area clean and free from debris.
- Do not overload the scale beyond its maximum capacity of 15KG.
- Disconnect power before cleaning or if the scale will not be used for an extended period.

3. Product Overview

The U.S. Solid Digital Precision Lab Scale (USS-DBS00059) is equipped with features designed for reliable and precise measurements.

Key Features:

- **Capacity:** 15KG with 0.1g readability.
- **Weighing Pan:** 150x180 mm stainless steel for corrosion resistance.
- **Display:** Backlit LCD for clear readings.
- **Power:** AC (100-240V) and DC (9V battery) operation.
- **Units:** 11 selectable measurement units (g, ct, oz, ozt, lb, GN, t, dwt, kg, dr, tlT, N, %).
- **Functions:** Weighing, parts counting, tare, unit conversion, manual calibration, and fault alerts.
- **Construction:** Durable ABS housing with height-adjustable feet and a level bubble.

Components:

Figure 3.1: Front view of the scale, showing the display, control buttons, and weighing pan.

Figure 3.2: Included components: scale unit, stainless steel pan, AC adapter, and instruction manual.

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4. Setup

4.1 Unpacking

Carefully remove all components from the packaging. Verify that all items listed in Figure 3.2 are present and undamaged. Retain the packaging for future transport or storage.

4.2 Placement

Place the scale on a firm, level, and stable surface. Ensure the location is free from vibrations, drafts, direct sunlight, and rapid temperature changes, which can affect measurement accuracy.

4.3 Leveling the Scale

The scale must be perfectly level for accurate readings. Adjust the four height-adjustable feet located on the bottom of the scale until the bubble in the built-in level indicator is centered within the red circle.

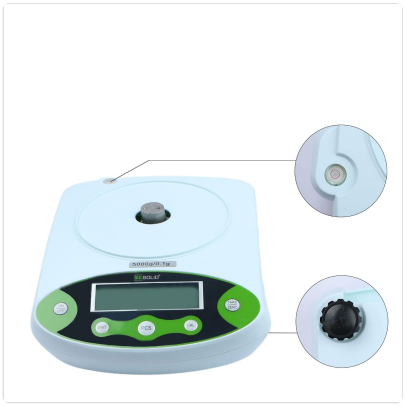

Figure 4.1: Side view illustrating the leveling bubble and adjustable feet.

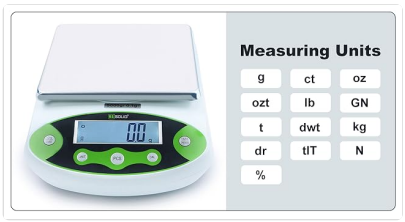

Figure 4.2: Visual guide for horizontal adjustment and ensuring environmental stability.

4.4 Power Connection

- **AC Power:** Connect the provided AC adapter to the power input port on the rear of the scale, then plug it into a suitable electrical outlet (100-240V).
- **DC Power (Battery):** For portable use, open the battery compartment on the bottom of the scale (Figure 4.3) and insert a 9V DC battery, ensuring correct polarity.

Figure 4.3: Bottom view of the scale, indicating the battery compartment.

4.5 Initial Warm-up

After connecting power, allow the scale to warm up for at least 30 minutes before performing critical measurements. This stabilizes the internal components and ensures optimal accuracy.

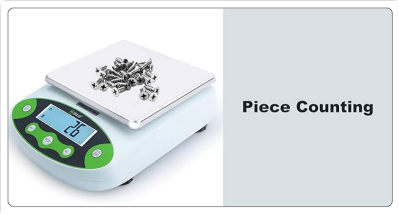

Figure 4.4: Instructions for warm-up time and calibration.

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5. Operating Instructions

5.1 Control Panel Overview

Figure 5.1: Control panel with ON/OFF, UNIT, PCS, CAL, and TARE/ZERO buttons.

Figure 5.2: Detailed explanation of button functions.

5.2 Power On/Off

- Press the **ON/OFF** button to turn the scale on.
- Press and hold the **ON/OFF** button to turn the scale off.

5.3 Basic Weighing

1. Ensure the scale is level and powered on.
2. Wait for the display to show "0.0" or "0.00" (depending on the unit).
3. Carefully place the item to be weighed onto the center of the stainless steel weighing pan.
4. Read the stable weight displayed on the LCD.

5.4 Tare Function

The tare function allows you to subtract the weight of a container, so only the net weight of the contents is measured.

1. Place an empty container on the weighing pan.

2. Press the **TARE/ZERO** button. The display will reset to "0.0" or "0.00".
3. Add the material to be weighed into the container. The display will show the net weight of the material.

5.5 Unit Conversion

The scale supports 11 different measurement units.

- Press the **UNIT** button repeatedly to cycle through the available units: g, ct, oz, ozt, lb, GN, t, dwt, kg, dr, tIT, N, and %.
- The selected unit will be indicated on the LCD.

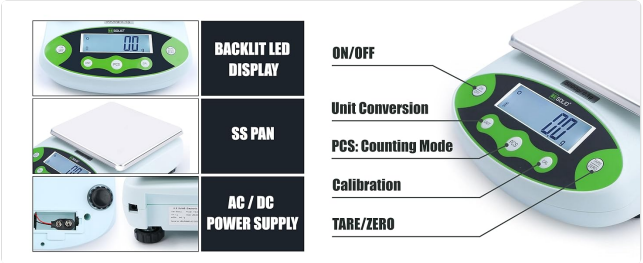

Figure 5.3: Available measuring units.

5.6 Parts Counting (PCS)

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

1. Place a known quantity of items (e.g., 10, 20, 50, 100) on the pan.
2. Press the **PCS** button. The display will show a prompt for sample size (e.g., "P-10").
3. Press the **UNIT** button to select the sample size that matches the number of items you placed on the pan.
4. Press the **PCS** button again to confirm. The scale is now in counting mode.
5. Add more items of the same type to the pan, and the display will show the total count.

Figure 5.4: Example of piece counting function.

5.7 Calibration

Regular calibration ensures the accuracy of your scale. It is recommended to calibrate the scale after initial setup, if it has been moved, or if you suspect inaccurate readings. A calibration weight (not included) is required.

1. Ensure the scale is powered on and the pan is empty.
2. Press and hold the **CAL** button until "CAL" appears on the display.
3. The display will then show the required calibration weight (e.g., "15000g").
4. Carefully place the specified calibration weight onto the center of the weighing pan.
5. Wait for the display to show "PASS" or return to normal weighing mode, indicating successful calibration.
6. Remove the calibration weight.

6. Maintenance

6.1 Cleaning

- Always disconnect the power supply before cleaning.
- Wipe the scale's housing with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- The stainless steel weighing pan can be removed and cleaned with mild soap and water, then dried thoroughly before reattaching.
- Ensure no liquids enter the internal components of the scale.

6.2 Storage

When not in use for extended periods, store the scale in a dry, dust-free environment at room temperature. If using battery power, remove the battery to prevent leakage.

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7. Troubleshooting

Problem	Possible Cause	Solution
Scale does not power on	No power supply; AC adapter unplugged; Dead battery.	Check AC adapter connection; Replace 9V battery.
Inaccurate readings	Scale not level; Drafts or vibrations; Needs calibration; Overloaded.	Adjust leveling feet; Move to a stable environment; Perform calibration; Do not exceed 15KG.
Display shows "OUE" or "EEEE"	Overload error.	Remove excess weight from the pan.
Display shows "UNST"	Unstable reading.	Ensure scale is on a stable surface, free from vibrations or air currents.
Display shows "LO"	Low battery.	Replace the 9V battery or use AC power.

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8. Specifications

Figure 8.1: Product dimensions.

Specification	Value
Model Number	USS-DBS00059

Specification	Value
Brand	U.S. Solid
Capacity	15 Kilograms (15KG)
Readability / Accuracy	0.1 Grams
Weighing Pan Material	Stainless Steel
Weighing Pan Dimensions	150 x 180 mm
Display Type	Backlit LCD
Power Supply	AC 100-240V; DC 9V Battery
Measurement Units	g, ct, oz, ozt, lb, GN, t, dwt, kg, dr, tlT, N, %
Functions	Weighing, Counting, Tare, Unit Conversion, Calibration
Item Weight	4.33 pounds
Package Dimensions	11.61 x 9.37 x 5.55 inches

9. Warranty and Support

U.S. Solid products are manufactured to high-quality standards. For information regarding warranty coverage, please refer to the warranty card included with your product or visit the official U.S. Solid website.

If you encounter any issues or require technical assistance, please contact U.S. Solid customer support. Contact details can typically be found on the product packaging, the official website, or through your purchase platform.