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U.S. SOLID
USS-DBS Digital Balance Scale

U S SOLID USS-DBS Digital Balance Scale Instruction Manual

Contents

U.S. SOLID

U S SOLID USS-DBS Digital Balance Scale

Specifications

- **Model:** USS-DBS61-12, USS-DBS61-22, USS-DBS61-32
- **Capacity:** 0-1200g, 0-2200g, 0-3200g
- **Readability:** 0.01g
- **Repeatability:** Linearity
- **Pan Size:** 128x157mm
- **Balance Dimensions:** 280x180x80mm
- **Net Weight:** 1200g
- **Power Supply:** AC100V-240V or DC4*1.5V

Product Usage Instructions

Getting Started
Thank you for choosing U.S. Solid's Analytical Balance. Please follow all instructions in the manual for best results and product durability.

Using the Balance
To use the balance:

1. Calibrate the scale before using it.
2. Add the desired reference material to the weighing pan when the scale displays the unit in grams.
3. Press the UNIT button until the display shows unit %, indicating that the balance is ready for use, showing 100%.
4. Remove the reference material and place the sample material on the pan. The display will show the percentage of the sample compared to the reference weight.

Maintenance and Cleaning
To maintain and clean the balance:

- Follow the maintenance suggestions provided in the manual for optimal results and product longevity.
- Ensure continuous and careful maintenance of the equipment.

This manual should be made available to all users of this equipment. For best results, and maximum durability of

the equipment, carefully read and follow all instructions.

Getting Started

Thank you for choosing U.S. Solid's Analytical Balance. We hope you enjoy your purchase. Please maintain the equipment according to all instructions within the manual. This product was developed according to CE marking regulations while emphasizing aesthetics and safety for the user. It has ISO certification, specifically ISO 9001 The high quality of the product, coupled with proper user care, should allow you to enjoy the product for years. Improper use of this equipment can cause accidents, including but not limited to: electric discharges, circuit breaker malfunctions, fire, etc. Please read the maintenance section, where this is explained more fully.

FOR BEST RESULTS AND LONGEVITY IN PRODUCT EFFICACY, READ THROUGH THIS MANUAL THOROUGHLY BEFORE USING THE PRODUCT

Please bear in mind the following:

- This manual should be kept with the analytical balance, so it is available to all users
- Be careful when handling the balance. Avoid any sudden movements when in its vicinity. Be sure to not drop the balance, nor drop any heavy/sharp objects on it. Keep liquids away from the balance to avoid spills.
- Never take apart the balance to try and fix yourself. This could ruin the entire balance and voids the product warranty. There is also the risk of injury when disassembling the balance.
- To prevent fire and electrical issues, avoid dusty or overly dry environments. In case of an electrical issue or fire, unplug the balance immediately.
- During setup, installation, and use, contact your wholesaler with any questions that arise.
- This equipment is protected under the Warranties and Consumer Good Regulation (10/2003)
- Overhaul is not covered by the equipment warranty.
- Changes made to the product by non-certified individuals will result in a loss of the product warranty.
- Accessories, including their loss, are not covered by the product warranty, nor does the warrant cover the piece's deterioration over time.
- Keep your invoice, either for having the right to a warranty or for asking for warranty coverage. Manufacturer reserves the right to modify or improve the manual or equipment.

ALWAYS MAKE SURE YOU CALIBRATE YOUR SCALE BEFORE USING,

FEATURES

- High-precision load cell
- Rugged plastic housing
- LCD
- Height-adjustable feet
- Overload protection
- Checking weighing, piece counting function
- Bubble Level
- RS232 Interface

Specifications

Technical Parameters:

Model	USS-DBS61-12	USS-DBS61-22	USS-DBS61-32
Capacity	0-1200 g	0-2200 g	0-3200 g
Readability	0.01 g		
Repeatability	± 0.03 g		
Linearity	± 0.03 g		
Pan size	128 x 157mm		
Balance Dimensions	280 x 180 x 80 mm		
Net weight	1200 g		
Power Supply	AC100 V-240 V or DC4*1.5 V		

Panel Description

Panel Explanations

1. ON/OFF: Turns the device on and off
2. UNIT: Press the UNIT key to select the desired weighing unit from g, kg, ct, T, TAR, dr, PKT, GN, TMR, gsm, tlJ, mo, dwt, oz, lb, tlT, ozt, tlH, %
3. COU: Piece counting mode
4. TARE/CAL: Tare the balance/ Calibration key

Installation

Choosing the installation location

The location should meet the following conditions:

1. The room should be clean and dry
2. The balance should be placed on a solid, stable, plain flat surface
3. Avoid locations in which the balance could be exposed to any of the following:
   a. Airflow from air conditioners, fans, doors, or windows
   b. Vibrations from surrounding or nearby equipment
   c. Direct sunlight or radiation
4. Do not use the balance anywhere exposed to explosive, combustible, or corrosive gases.
5. Do not use the balance in areas with high humidity or high levels of dust
6. Keep the balance clean.
7. Do not leave material on the balance when not in use.

Unpacking and inspection
Check that all of the items indicated below are included in the package and that nothing has been damaged:

Balance

- Power Cable
- Manual

  In case the balance or any component is damaged during transport, tell your transportation agent immediately to process claims within the proper time frame.
- RS232 Interface Balance (9 pins)
  - Printer/ PC (9 pins)
  - RXD(input) 2 ——— 3 (Output) 3——2

    (Ground) 5 5
- Download "Uartassist" Software
- The default Baud Rate is 9600 bps
- The data format is: 10 bits; 0 as the start bit, 1 as the stop bit, and 8 digits (ASCII code)
- No odd and even number adjustments

Data output format:

Data Output Settings

Continuous output

- Press and hold the COU button, and release it when 'CO-OFF' is displayed
- Press the TARE button and select C5-
- Press the COU button and select C5-0
- Finally press the TARE button to enter into "continuous output" mode

Key output

- Press and hold the COU button, and release it when 'CO-OFF' is displayed
- Press the TARE button and select C5-
- Press the COU button and select C5-2
- Finally press the TARE button to enter into "key output" mode.

You need to click "UNIT" to output weighing data. Each time you press "UNIT", the computer will output a result.

Using the Balance

Choose AC or DC Power before Starting

There is a power locker at the bottom of the balance. It is used to turn on or turn off the DC power. Eg, if you want to use the batteries, please switch the locker to 🔓 turn on the DC power. Conversely, if you don't want to use the batteries, simply switch the locker to 🔒 turn off the DC power and the scale will use the AC power directly.

Start

1. Connect the balance to the power supply and press the ON key on the panel. Wait 30 minutes after powering on for best performance.
2. After warming up, calibrate the balance.
3. After calibration, the balance will enter weighing mode
4. To turn the balance off, press the OFF key on the panel and the display will shut off. If the balance will be unused for an extended period, disconnect it from the power supply.

Backlit Setting

1. Press and hold down the "COU" button, and release it when 'CO-OFF' is displayed.
2. Press the "COU" to change the value between CO-OFF/ C0-1 / C0-5.
   CO-OFF: backlit is always on
   C0-1: backlit will be off after 1 second of no activity
   C0-5: backlit will be off after 5 seconds of no activity
3. Finally, click "TARE" until the program ends and returns to zero.

Standard Calibration

1. Press the TARE/CAL key; the value of the necessary weight will flash on display.
2. Put the calibration weight on the pan. Wait until the value of the calibration weight stops flashing and is fixed on the display (e.g.1000.00 g, 2000.00 g, etc., depending on the model).
3. Remove the weight from the pan.
4. The balance will enter weighing mode and display zero.

If the standard calibration doesn't work, then the balance needs to do linear calibration.

Linear Calibration

1. 1. Press and hold down the "TARE/CAL" button, when it shows"CAL" on display, release 'TARE/CAL'.
2. Long press "COU", when it shows "CAL" on display again, release
   "COU". It will enter linearity calibration mode, and the value of the necessary weight will flash on display.
3. Put the calibration weight on the pan. Wait until the value of the calibration weight stops flashing and is fixed on the display Remove the weight from the pan. Another value will flash on display, and the related calibration weight on the pan (What number is displayed, pis put the corresponding weight on the pan).
4. Finally, the balance will display zero and enter weighing mode.

Tare Function

1. Put the receptacle on the weighing pan; its weight will be displayed.
2. Press the TARE/CAL key and the reading on the display will automatically be set to 0.00g; the tare is complete.
3. If the receptacle is removed from the pan, the corresponding weight, with a negative value will be displayed.
4. Press the TARE/CAL key again and the display value will be set to zero again.

Piece Counting Function

1. Press the COU button.
2. Press the TARE/CAL button repeatedly to cycle through different counts. This function can be used with counts of 10, 20, 50, 100, 150, 200, 250, or 500 pieces.
3. Put the corresponding number of pieces on the pan, and press the PCS button to confirm.
4. Remove the pieces from the pan and the balance is ready to be used in piece-counting mode.
5. To return to weighing mode, simply press the COU button again.

Unit Package Locking

1. Press and hold down the "COU" button, and release it until 'CO-OFF' is displayed.
2. Click "TARE" to choose C06-1. Press "COU" to choose C06-1 /C06-2/C06-3/ … or C06-16. Different numbers represent different unit locks.
   C06-1 Unit Package: g, ct
   C06-2 Unit Package: g,t,C T, oz, lb
3. Finally, click "TARE" until the program ends and returns to zero.

Maintenance and Cleaning

To get the best results and for product longevity, be sure to follow the suggestions below.

Note: All of the suggestions and guidelines mentioned below and throughout this manual will only be effective with continuous and careful maintenance of the equipment

- Follow all processes outlined in the manual
- Make the manual available to all users of the equipment
- Prevent the balance from any sudden movements or falls, as well as from direct sunlight or airflow. The balance is a precision instrument and must be handled carefully.
- Balance must be plugged into a grounded electrical outlet and the socket should be easily accessible to unplug in case of emergency.
- Never unplug the balance by pulling on the wire, do so from the base
- Never use the balance in a wedged-in location, such as a shelf
- Never use other objects such as pens, pencils, etc. to press the buttons on the control panel; use only your fingers
- Never place anything on the pan heavier than the maximum capacity of the balance, or the sensor could be damaged
- Do not submerge the balance, nor spill any liquids on it
- If any liquid does come into contact with the electrical parts of the balance, immediately disconnect it and send it in for service to be checked and adjusted if necessary
- Always use only original components and supplies. Other devices and parts may appear similar but can damage the equipment.

Cleaning

- Never use scourers or substances that can grate to clean metallic parts. This includes, but is not limited to, stainless steel, aluminum, coatings, etc .. These can damage the balance and lead to early erosion of the

effectiveness of the balance.

- Use a lint-free cloth, dampened with soapy water, that does not contain any abrasive surface, or corrosive materials

ATTENTION!! If equipment is not properly cleaned and cared for, technical service will be unable to fix or repair issues

Note: According to the applicable legislation regarding "Nonautomatic weighing instruments" in which balances are included, using a writ dating from the 22nd of October, 1994 (BOE
1 /3rd/95), these balances must not be used for:

- Commercial transactions
- Calculating taxes, tariffs, rates, indemnities, and other similar canons
- Judicial surveys
- Pharmaceutical medicine preparations, as well as analyses made in medical or pharmaceutical laboratories
- Determining the price or total amount in the sale price or prepackaged preparations

Instructions on environmental protection:

At the end of its life cycle, please do not dispose of this equipment by throwing it in the usual garbage. Instead, hand it over at a collection point for the recycling of electrical and electronic appliances. It does not contain dangerous or toxic products for humans, but inadequate disposal could still damage the environment. The materials are recyclable as mentioned. By recycling material or through other forms or repurposing old appliances, you are making an important contribution to the protection of our environment. Please inquire with your local com-munity authorities for the proper disposal location.

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FAQS

- **Q: What should I do if my balance malfunctions?**

  A: If your balance malfunctions, please refer to the maintenance section in the manual for troubleshooting steps. If issues persist, contact technical service for assistance.
- **Q: How often should I calibrate the scale?**

  A: It is recommended to calibrate your scale before each use to ensure accurate measurements.

Documents / Resources

	U S SOLID USS-DBS Digital Balance Scale [pdf] Instruction Manual USS-DBS, USS-DBS Digital Balance Scale, Digital Balance Scale, Balance Scale, Scale

References

- **User Manual**