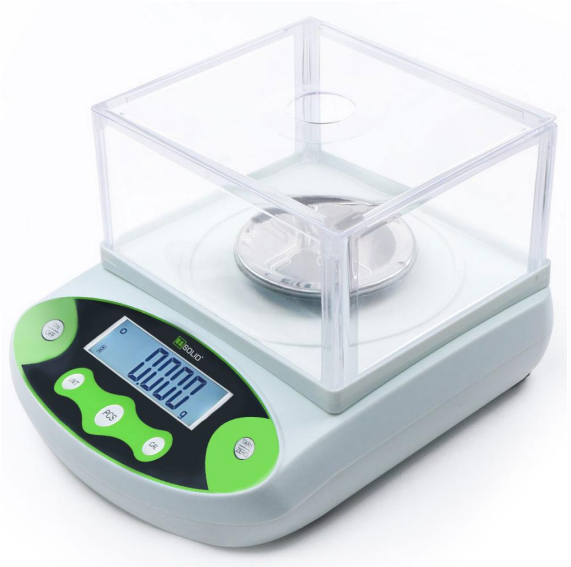
U.S. SOLID	OPERATING MANUAL Precision Balance	USS-DBS64 MODELS

Precision Balance

Manual No. : 8288



This manual should be made available to all users of this equipment. For best results, and for maximum durability of the equipment, carefully read and follow all instructions.

I. Table of Content

I. Getting Started

Thank you for choosing U.S. Solid's Precision 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 it 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 Precision 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 risk of injury when disassembling the balance.

•To prevent fire and electrical issues, avoid dusty or overly dry environments. In case of 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 piece's deterioration over the course of time.

ALWAYS MAKE SURE YOU CALIBRATE YOUR SCALE BEFORE USING, AND NEVER TOUCH THE INCLUDED WEIGHT WITH YOUR SKIN!

II. Specifications

Precision Balances offer offer fast and accurate measurements of mass, using strain gauge technology for fast, efficient measurement.

Technical Parameters

MODEL	USS-DBS64 -1	USS-DBS64 -2	USS-DBS64 -3	USS-DBS64 -5
Max Capacity	100g	200g	300g	500g
Accuracy Class	Class II			
Min. Capacity	10 mg			
Readability	0.001g			
Repeatability	±0.003g			
Linearity	±0.003g			
Operating Temperature	5° C- 35° C, with fluctuations of <1°C/Hour			
	41° F- 95° F with fluctuations of <1.8° F/ Hour			
Pan Size	Φ90mm			
Relative Humidity	50%-85%			
Power	AC110V-240V 50Hz/60Hz,DC9V			

III. Panel Description

Pan Explanations

1. ON/OFF: Turns device on and off
2. UNIT: Select between g, ct, oz, ozt, lb, gn, t, dwt, kg, dr, tlT, N
3. PCS: Piece counting mode
4. CAL: Calibration key
5.TARE/ZERO: Tare the balance

Features

- Strain gauge technology
- Stainless steel pan
- Backlit LCD display
- Plastic draft shield
- Height-adjustable feet
- Taring
- Multi-units of measure: g, ct, oz, ozt, lb, gn, t, dwt, kg, dr, tlT, N
- Piece counting function

IV. Installation

Choosing the installation location

When Precision Balances are used in routine lab or industrial measurement environments, the weighing speed will be much quicker, and the results more accurate. The location should meet the following conditions:

1.Work room should be clean and dry

2.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

d.Electromagnetic waves or fields

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.When moving from a cooler to a warmer place, the accuracy and reliability of the scale will be influenced by the moisture condensation inside the balance. In order to eliminate this influence, it is best to leave the scale unplugged in its new location for at least two hours before next use.

7.Avoid extreme temperatures or exposure to direct sunlight or air conditioners. Ideal working temperatures are between 15°C and 30°C (59 and 86°F) with temperature fluctuations of less than 2°C (3.6 °F) per hour.

8.Keep the balance clean.

9.Do not leave material on the balance when not in use.

10.Always use the correct power supply and voltage with the balance; the balance is supplied with a power adapter 110-220 V/50-60 Hz.

Unpacking and inspection

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

- Balance
- Pan
- Power Cable
- Calibration Weight

In case the balance or any component is damaged during transport, contact us immediately in order to process claims within the proper time frame.

V. Using the Balance

Level adjustment

Once the balance is placed at its location, check the bubble level; if bubble is not well-centered, turn the adjustable feet so the bubble moves to the center and the balance is properly leveled.

Start

1.Connect the balance to the power supply and press ON key on the panel.
2.When the balance turns on, wait 30 minutes for the necessary warm up time for better performance and stability for the balance.
3.Once warm up time has passed, it is recommended that the balance be calibrated.
4.After calibration, the balance will enter weighing mode.
5.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 of time, disconnect it from the power supply.
6.When the operating temperature changes, put the balance in the new place for two hours in the "power on" state to make the balance comply with the new temperature.
7. If the number on display is not stable at first boot, and this occurred at the operating temperature, you can press the "TARE" button repeatedly and lay aside for 30 minutes.

Calibration

To get accurate weighing results, the balance should be calibrated before the usage scenarios below.
1. Before first use.
2. Balance power off for a long time or power error.
3. After changing the operating environment.
4. Regularly in weighing procedure.

Standard Calibration

1. Press and hold down CAL key, when it shows "CAL" on display, release the keys; then 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. 100.000 g, 200.000g, etc., depending on the model).
3. Remove the weight from the pan.

4.The balance will enter weighing mode and display 0.000g.

Linear Calibration

1.Press and hold down "CAL", when it shows "CAL" on display, release it. Then press and hold down "PCS" immediately, when it shows"CAL" on display again, release the keys and wait for a few seconds, it will enter linearity calibration mode.

2. A value of the necessary weight will flash on display, put the calibration weight on the pan.Wait until the value of the calibration weight stops flashing, then remove the weight from the pan.

3. Another value will flash on the display (e.g. 100.000 g, 200.000g, etc., depending on the model). What number shows on, pis put the accordingly weight on the pan. Repeat Step2.

4. The balance will enter weighing mode and display 0.000g.

Note: Each balance includes the necessary weight to complete external calibration. If the standard calibration doesn't work, please try linear calibration.

Tare Function

1.Put the receptacle on the weighing pan; its weight will be displayed.

2.Press TARE key and the reading on the display will automatically be set to 0.000g; tare is complete.

3.If the receptacle is removed from the pan, the corresponding weight, with negative value will be displayed.

4.Press the TARE key again and the value on display will be set to zero again.

Weighing Unit Selection

Press UNIT key to select the desired weighing unit from g, ct, oz, ozt, lb, gn, t, dwt, kg, dr, tlT and N.

Note:The default weighing unit is g.

Piece Counting Function

1.Press the PCS button

2. Press the CAL button repeatedly to cycle through different counts. This function can be used with counts of 10, 20, 50, 100, 200 or 500 pieces.

3. Put the corresponding number of pieces on the pan, 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 PCS button again.

Percentage Function

1.When the scale displays “g”, placet the desired reference material on the weighing pan (e.g., 100g weight).
2.Press the “UNIT” button until the display shows the unit “%”,indicating that the sample weight is saved, and the display shows “100.00%”.
3.Remove the reference material from the pan, and then place the contrast material (e.g., 50g weight). The display will show the percentage of the sample in comparison to the reference weight (e.g., “50.00%”).

VI. 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 guide lines 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 air flow. 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.
• When the balance will be unused for a long period of time, lock the rechargeable battery.
• 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 include, but is not limited to, stainless steel, aluminum, coatings, etc.. These can damage the balance and lead to early erosion of effectiveness of the balance.
• Use a lint-free cloth, dampened with soapy water, that does not contain any abrasive surfaces, nor corrosive materials.

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

Troubleshooting Guide

Problem	Cause	Solution
Display not working	No power supply	Plug in the adapter
Display shows"_____"	Object weight below minimum threshold, taring issues exist, or balance is not properly calibrated.	Make sure item being weighed is at least 10 mg. Make sure receptacles have been tared, and the balance has been properly calibrated.
Display shows"-------"	Item being weighed is over maximum allowable weight.	Make sure balance is properly calibrated, and make sure item is below maximum allowable weight
Display shows "Err-1"	Power issues with the balance.	Machine may have a poor power connection. Check the power in the back, and the outlet. Leave machine off for several minutes, unplug fully, then reconnect and begin again.
Display shows "Err-2"	Unstable weighing conditions.	Re-calibrate machine, make sure balance is level, and make sure item being weighed is fully stable.

Note:According to the applicable legislation regarding“Non-automatic Weighing instruments”in which balances are included, by means of write 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 analysis made in medical or pharmaceutical laboratories
- Determining the price or total amount in sale price or in 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 nor 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 re-purposing old appliances, you are making an important contribution to the protection of our environment. Please inquire with your local community authorities for the proper disposal location.