



OPERATING  
MANUAL  
PRECISION BALANCES

USS-DBS  
MODELS

# PRECISION BALANCE


manual No. 8502



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.

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**Instructions on environmental protection:**

DS3670YF 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 of repurposing 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.

## 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 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 precision balance so that it is available to all users.
- Be careful when handling the balance. Avoid any sudden movements when in its vicinity. Be sure not to drop the balance or any heavy/sharp objects on it. Keep liquids away from the balance to avoid spills.
- Never take apart the balance to try and fix it yourself. This could ruin the entire balance and void the product warranty. There is also a 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 deterioration of pieces over time.
- 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
- ABS plastic housing
- LED display
- Height adjustable feet
- Big size stainless steel pan
- Overload protection
- Checking weighing
- Piece counting function
- Manual calibration

## II. Specifications

### Technical Parameters:

Model	USS-DBS66-10	USS-DBS66-20	USS-DBS66-30
	USS-DBS67-10	USS-DBS67-20	USS-DBS67-30
	USS-DBS68-10	USS-DBS68-20	USS-DBS68-30
	USS-DBS69-10	USS-DBS69-20	USS-DBS69-30
Capacity	0-1000 g	0-2000 g	0-3000 g
Readability	0.01 g		
Repeatability	± 0.03 g		
Linearity	± 0.03 g		
Pan size	157 x 128 mm(6.2x5.0 in)		
Product Dim.	225 x 220 x 80 mm(8.8x8.6x3.1 in)		
Power	AC 100 V-240 V or 4 pcsx1.5 V batteries		
Operating Temperature	5-35 °C, with fluctuations of <1°C/Hour		
Moisture	50-85%		

## VI. Maintenance and Cleaning

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

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

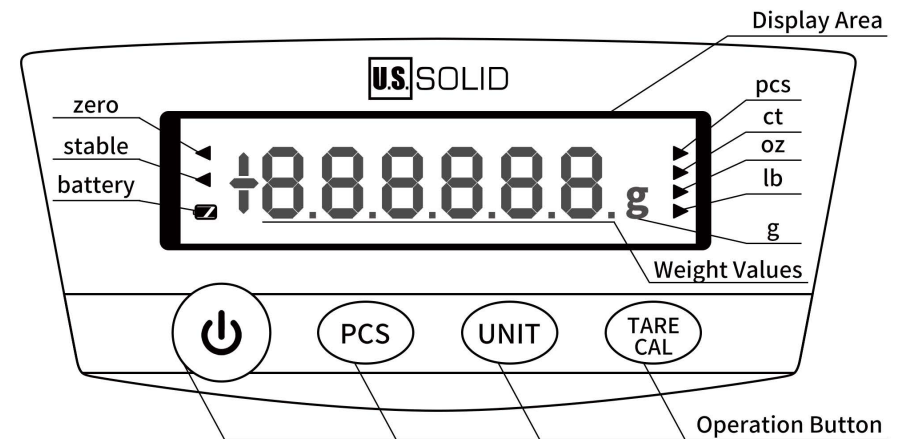
- Follow all processes outlined in the manual.
- Make the manual available to all users of the equipment.
- Prevent the balance from any sudden movements or falls, as well as from direct sunlight or air flow. The balance is a precision instrument and must be handled carefully.
- Balance must be plugged 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.
- 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 abrasive substances to clean metallic parts, including stainless steel, aluminum, coatings, etc. These can damage the balance and lead to a decrease in effectiveness.
- Use a lint-free cloth dampened with soapy water that does not contain any abrasive surfaces or corrosive materials.

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

### III. Panel Description



#### Linear Calibration

1. Press and hold down the "TARE/CAL" button, when it shows "CAL" on the display, release the "TARE/CAL" button.
2. Long press the "PCS" button, when it shows "CAL" on the display again, release the "PCS" button. It will enter linear calibration mode, and the value of the necessary weight will flash on the display.
3. Put the calibration weight on the pan and 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 then flash on display. Place the corresponding calibration weight on the pan (the number displayed indicates the weight to be placed 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; 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 value on the display will be set to zero again.

#### Piece Counting Function

1. Press the "PCS" button.
2. Press the "TARE/CAL" button to cycle through different counts. Each press will change the count to 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 now ready to be used in piece counting mode.
5. Place a certain amount of samples on the pan, and the display will show the counting result.
6. To return to weighing mode, simply press the "PCS" button again.

#### Operation Button

1.  : ON/OFF button, turn on or turn off the balance
2. UNIT: Select the unit between g, ct, oz, or lb (The unit "g" is displayed directly on the right side of the screen, while the units "ct", "oz", and "lb" need to be selected through the triangle on the right side.)
3. PCS: Select the piece counting function
4. TARE/CAL: Tare the balance (setting it to zero) / Calibration button

#### Display Area

1. zero: Lights up when balance is zeroed.
2. stable: Flickers when unstable, disappears when stable.
3. battery: Flashes when charging with AC power, shows remaining battery power on battery mode.
4. pcs: When the pcs triangle symbol is lit, it means the scale is in counting mode.
5. ct: When the ct triangle symbol is lit, it means the weighing unit is in carats.
6. oz: When the ct triangle symbol is lit, it means the weighing unit is in ounces.
7. lb: When the ct triangle symbol is lit, it means the weighing unit is in pounds.

## IV. Installation

### Choosing the installation location

The location should meet the following conditions:

1. The work room should be clean and dry.
2. The balance should be placed on a solid, stable, plain flat surface
3. Avoid locations where 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 in areas 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 ensure that nothing has been damaged:

- Balance
- Pan
- Power Cable
- Manual

If the balance or any component is damaged during transport, please contact us immediately to get a replacement.

## V. 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  to turn on the DC power. Conversely, if you don't want to use the batteries, simply switch the locker to  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 ON button on the panel. Wait for 30 minutes after powering on for optimal 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 button 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.

### Standard Calibration

1. Press the "TARE/CAL" button; the value of the required weight will flash on the display.
  2. Put the calibration weight on the pan and wait until the value of the calibration weight stops flashing and remains 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.