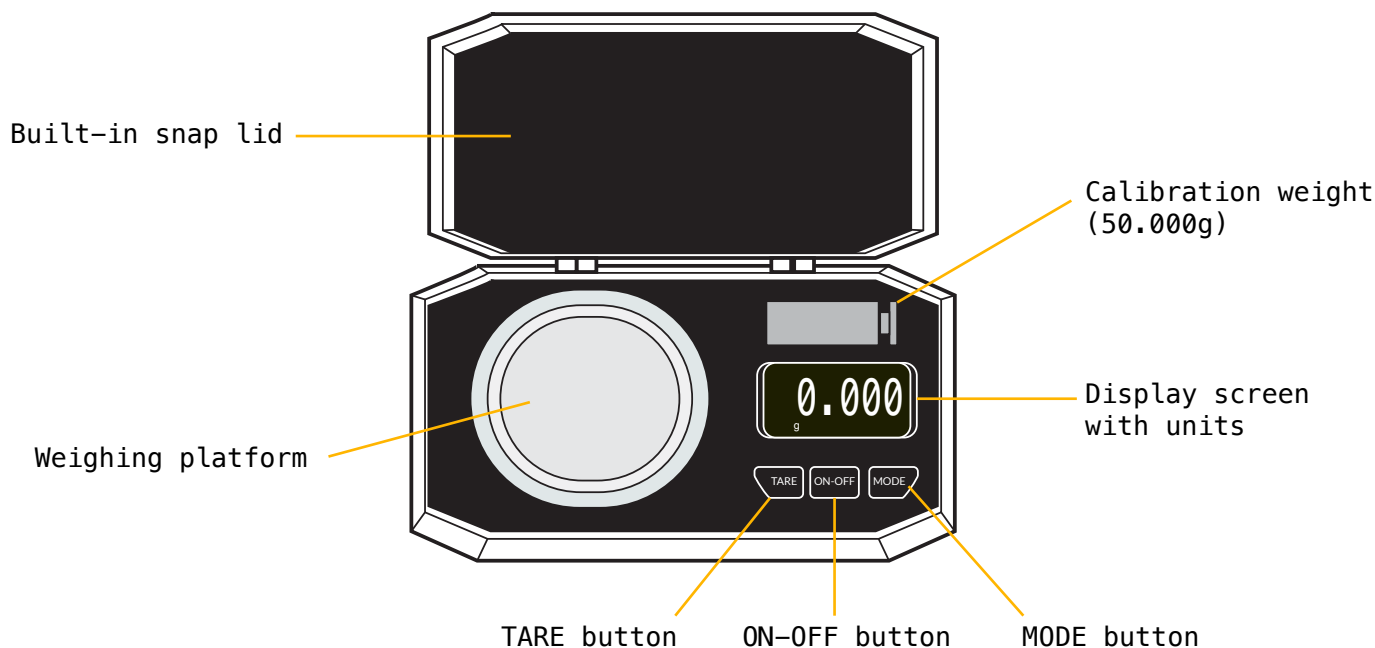# 3-decimal point scale *Quick Guide*

Welcome!

You are now the owner of an easy-to-use 3-decimal point scale. Whether you plan to use it to measure weight of a sample, to complete the pipetting exercise, or for general lab needs, your scale will be a great asset to your biotechnology lab. This quick guide will help you learn how to use and take care of it.

Features:

- a weighing range of 0.000 g to 50 g
- an energy-saving auto shut-off feature,
- a low-battery indicator,

- a built-in hinged cover for protection,
- an unstable location indicator,
- an external calibration weight.

Built-in snap lid

Calibration weight (50.000g)

Weighing platform

Display screen with units

TARE button   ON—OFF button   MODE button

Setting up your scale

When you first receive your scale and before your first use, you will need to set it up, and many need to calibrate it. Let's learn how:

1. Your scale will require 2x AAA batteries. Install the batteries in the battery compartment on the bottom of the scale following the battery polarity (+/-) indicated.

2. Place your scale on a level surface and open the lid. You will notice two foam pieces under the silver weighing platform. Gently pull these out to remove them, as these were only needed during shipping. You can hold on to them and place them back under the weighing platform to protect your scale if you plan to move it between locations.

3. Press the ON/OFF button and allow your scale to warm up for a few seconds after turning it on. The scale screen will display "0.000" and "g ." If the scale display reads UNS - this means the scale is unstable. Place it on a level, stable surface to continue.

Choosing your units
The scale can measure in Grams (g), Ounces (oz), Troy ounces (ozt - often used for precious metals), Pennyweight or Denarius weight (dwt - also used for precious metals), Grains (gn - can be used for dosage, particulates), Carats (ct - for gems and pearls). To switch between these units, press the MODE button - you will see the unit abbreviation appear at the bottom of the LCD screen.

In biotechnology, we will use grams (g). Set your scale back to grams if you cycled through the options.

Calibrating your scale
Your scale came with a calibration weight, and it is good practice to calibrate before using it for the first time.

1. While the scale is turned on, press and hold the MODE button until the display reads "CAL" for calibration.

2. Press the MODE button again and wait for the screen to start flashing "50.000."

3. Take the calibration weight out of the plastic bag, and place it in the center of the weighing platform.

4. Once the screen reads "PASS," the scale is calibrated and will go back into regular weighing mode.

If the screen reads a value over 50.000, clear/clean the weighing surface with isopropyl alcohol or hot water to remove any potential debris that is adding weight. You can also verify that the calibration weight is clean. When cleaning the weighing platform, avoid pressing down too hard on it or getting water on the screen/scale surface outside of the weighing platform.

5. You can now remove the calibration weight and place it back in the holder. Your scale is calibrated!

Operating your scale

Follow these simple guidelines to make the best use of your scale:

1. Always place your scale on a level surface. Remember - if the scale display reads UNS - this means the scale is unstable, and you should move it to a level, solid surface before use.

2. Keep your scale clean - dust off any powders or liquid that fall on it during use. (See below for cleaning instructions).

3. Always handle your scale with care. Although your scale looks robust and straight-forward, it is a precision laboratory instrument. Please keep it away from moisture, magnets, and static electricity to ensure optimal results and longevity.

4. Your scale was manufactured to work optimally between 10-30 ºC/50-86 ºF. For the most accurate result, use it under these conditions.

5. Always gently place the items you weigh on the weighing platform to avoid spills, weight overload, or shock to the internal mechanism.

6. Remember to allow your scale to warm up after turning it on before you start using it. Waiting 30 to 60 seconds will give it time to stabilize before use.

7. Remember to check the scale unit setting before starting your experiment.

Using the TARE function
If you are new to using scales in science, the TARE function may be new to you. This function is a handy feature most scales have to allow you to weigh the content within a tube, bowl, weigh boat or other container without including the weight of the container itself. This is called "taring," and it works like this:

1. With the scale on, and the units set as you need them, place the empty container on the weighing platform,

2. Press the TARE button and wait until the screen displays "0.000".

3. You can now remove and fill your container with the thing you want to weigh and place it back on the scale to obtain its weight. The screen will now display only the weight of the item you are weighing. Pretty useful!

You'll notice that removing the empty container from the weigh platform before you fill it will display a negative value. That's the weight of your container. If you were to place your container on the weighing platform before you turn on your scale, it would also act as if you had tared the container.
Remember that if you have the auto-off feature on, if you take more than 180 seconds (3 minutes) to fill your container before you place it back on the scale, your scale will turn off, and you will lose your tare. You can turn off the auto-off feature or gently give the weighing platform a push to wake up the scale again and reset the auto-off timer.

The auto-off feature
If the scale is not used for 180 seconds, it will automatically turn off to conserve battery life. You can change this auto-off timing or turn off the feature:

1. In weighing mode, press the TARE button until the display shows the current auto-off time (the factory default is 180).

2. To change the timing, press the MODE button to switch between 0, 60, 120, and 180. Choosing 0 turns off the auto-off feature.

3. Press the ON/OFF button to confirm your choice. This will also turn off the scale. Turn it back on to test your new auto-off setting!

Cleaning and storing your scale between uses

To clean your scale, dust off any powders into the garbage can using a soft cloth or paper towel. Once powder dust is gone, you can use isopropyl alcohol or hot water on a paper towel to gently wipe your scale. Do not over-wet the paper towel - you don't want water to get inside the scale; you want to wipe off any dust from the scale.

To store the scale between use, turn it off and close the lid. Easy! If you plan on bringing the scale to a different location like school, work, or a community lab, you can place the two pieces of foam back under the weighing platform before you close the lid. If you kept the bubble bag it came in, place the scale in it for transport. Avoid dropping your bag on the ground when you transport it to avoid damaging its delicate internal workings.

Troubleshooting

If the display reads Lo, 88888 or shows a battery icon, your batteries are low, and you should replace them as soon as you can to continue using your scale without issues.

If the display reads UNS, your scale is on an "unstable" surface. Move it to a solid, level, and flat surface before continuing.

If the display reads OUT2, you must recalibrate your scale. Follow the instruction in the setup section to recalibrate your scale.

If the display reads 0-Ld, the item you have placed on the weighing tray is too heavy and is "overloading" your scale. Remove the item(s) quickly to avoid damaging the weighing mechanism.

If the display reads LLLLL, your scale has been damaged by dropping it or placing excessive weight on it. Try recalibrating it using the instructions above - it may correct the issue.