

OPTIMA **SCALE**

OPH-T Weighing Scale **USER'S MANUAL**



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SAFETY PRECAUTIONS

- To avoid damaging the battery do not keep charger plugged in once battery is fully charged.
- Avoid installing the balance in direct sunlight. This may cause poor performance or malfunctions.
- If the balanced will not be used for a long period of time, remove all batteries from the battery compartment to avoid leakage, which may cause damage to the instrument.
- Avoid overloading or dropping material onto the platform as that may damage the balance.
- Place the weight on the center of the pan for accurate weighing.
- Make sure the weight is not over the Max capacity as it could damage the load cell inside.
- Do not spill liquids on the balance as it is not water-resistant. Liquids may damage the case and any liquid inside may cause damage to the electronics.
- Material that has a static electric charge could influence the weighing. Discharge the static electricity of the samples, if possible. Another solution to the problem is to wipe both sides of the pan and the top of the case with an anti-static agent.
- Do not operate the balance in hazardous environments. All outlets should be properly grounded for the operators security
- The balance receives power as long as the AC cord is plugged into the socket, even when the display is off. This is to keep the electronics warmed up and eliminate long start-up times. If you are not using the balance for longer than five days, you should unplug it

PREPARATIONS & SET UP

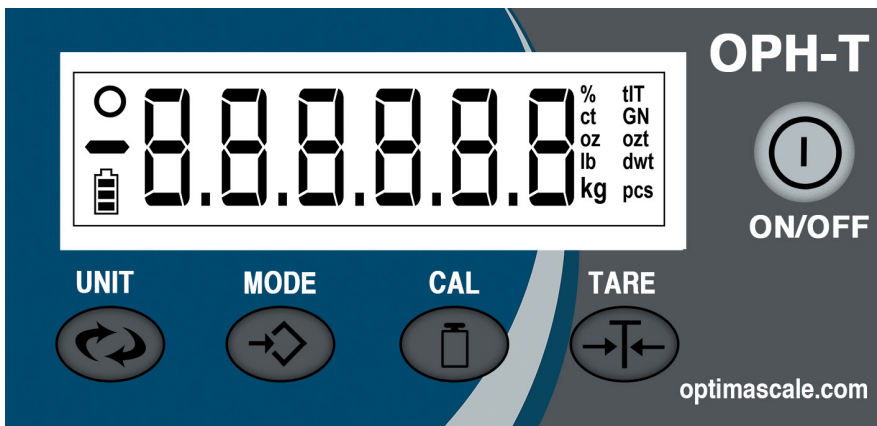
- Carefully unpack the balance and remove it from its styrofoam supports. You may want to keep the original box and packing materials for storing the balance when not in use.
- If the balance is damaged contact the supplier immediately. Keep all packing materials as they were when you received them.
- Place weighing pan onto its mount carefully
- Adjust the four leveling feet until the bubble on the spirit level is centered
- Proper placement will help to ensure the most accurate and repeatable results from balance
- The ideal location is in a corner, on a stable, vibration free bench, protected against drafts from doors, windows, ac units, fans, etc. Many laboratories set precision and analytical balances on marble or granite slabs or desks for maximum stability and anti-vibration
- The recommended working temperature is $68^{\circ}\text{F} \pm 45.5^{\circ}\text{F}$ ($20^{\circ}\text{C} \pm 7.5^{\circ}\text{C}$) with a deviation of no more than $41^{\circ}\text{F}/\text{hour}$ ($5^{\circ}\text{C}/\text{hour}$).
- The recommended relative humidity is 50-80°
- Plug into a wall outlet to avoid interference with other wirings
- Turn on the balance while there is no load on the pan
- Allow scale to warm up for 1 minute before use
- Calibration may be required before weighing when the balance is initially installed or moved from a location.

Note: You should let the balance warm up for 20-30 minutes before use for best results.

FEATURES:

- Large high contrast back-lit liquid crystal display (LCD)
- Comes with AC adapter, rechargeable battery is optional
- Splash proof keyboard and display
- Anti-static stainless steel weighing pan and glass windshield
- Calibration with reference weights
- Parts counting, percent weighing and dynamic weighing
- Multiple weighing units: g, lb, oz, ct, ozt, N, dwt, GN, tLT
- 1 year limited warranty

DISPLAY AND KEY DESCRIPTION



UNIT

Shifts between the different units of measurement

MODE

Shifts between weighing and counting mode

CAL

Used to enter calibration mode

TARE

It tare's/zero's the scale

OPERATING INSTRUCTIONS

Powering On

- Turn on the power by pressing the [ON/OFF] button located next to the scale's screen. Once on, the scale will display the following screens



- Once the display shows "0" you have entered the weighing mode

Zeroing

- If the screen reads any number other than 0 before weighing, press the [TARE] key to set to 0.

Unit Selection

- There are 9 possible weighing units, they are carat (ct), ounce (oz), pound (lb), kilogram (kg), tael (tl.T) grain (GN), troy ounce (ozt), pennyweight (dwt), pieces (pcs)
- To switch between measuring units press the [UNITS] key

Tare Function

- Put a container you wish to use on the pan, then press the [TARE] key and the display will reset back to 0
- Add your sample to the container to weigh without the weight of the container
- To exit Tare mode simply press either [TARE] or [ZERO] key

Note: If you remove your container the scale will show the minus weight of the container

Counting Function

- With items of uniform weight (ie. all the pieces weigh the same) it is possible to use this counting feature to quickly and accurately obtain a piece count.
- To use this mode press the [MODE] key until the display shows "pcs"
- The display will show "10 pcs" to indicate that you should place a sample quantity of 10 pieces onto the platform.
- You may change the sample size by pressing the [CAL] key. Possible sample sizes are 10, 20, 50, 100, 150, 200, and 500

Percent Weighing

- Put the full reference sample (100%) on the platform (or container)
- Press [UNITS] key until the display shows “%” to indicate percent weighing mode
- You can now add any quantity to the scale and the display will show the % as it relates to the reference sample

Note: The reference sample is not stored when exiting percent weighing mode.

TROUBLESHOOTING


Problem: The Display shows “F---”

Solution: 1. The weight on the scale is in excess of the rated capacity. Remove the excess weight
2. The balance may be improperly calibrated, try recalibration

Problem: The display fluctuates

Solution: 1. Vibration or wind is interfering with the measurement. Try using the balance in a more stable location
2. Electronic balances can be affected by static electricity and radio waves. Make sure the area is static free and away from any strong radio wave emitting devices such as cordless phones
3. The item on the platform is in motion. Wait for it to stabilize or try supporting it with whatever means is convenient

Problem: The scale is weighing inaccurately

Solution: 1. The scale requires recalibration.
2. The [TARE] feature has been used improperly. Remove the items and try again
3. The balance is not level. Adjust the leveling feet until the bubble level is centered
4. Battery power may be low (the  symbol will appear). Replace the batteries.

CALIBRATION

When to calibrate

- When the scale is initially installed
- When the scale's location has changed
- After the scale has not been used for a long period of time
- If ambient temperatures have changed greatly

How to calibrate

- Prepare the calibration weight (1 kg)
- Clean the weighing pan and press [TARE] to re-zero the balance
- When the scale is stabilized, hold the [CAL] button for 5 seconds
- The display will show "-CAL-", then the required weight will flash on the display (1000 grams)
- Place the calibration weight onto the center of the platform and wait for the display to stop flashing
- You may now remove the weight. The scale will return to normal weighing mode

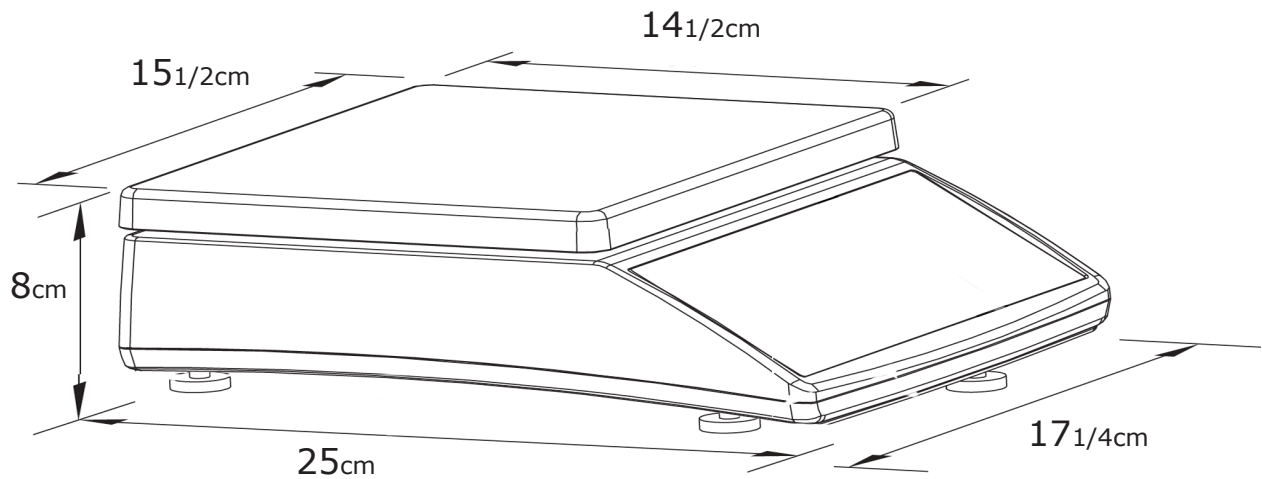
Linear Calibration

- Linear calibration adjusts the balance at two or more points, rather than just one. To enter linear calibration:
- Prepare the calibration weights (2 kg & 1 kg)
- Clean the weighing pan and press [TARE] to re-zero the balance
- When the scale is stabilized, hold the [CAL] button for 5 seconds
- The display will show "-CAL-", then the standard calibration weight will flash on the display
- At this point, press and hold the [MODE] key for 5 seconds
- The display will flash the first required calibration weight (2000 grams)
- Place the required weight onto the center of the platform
- Once the weight is accepted the display will stop flashing
- Remove the weight and the display will flash the next required calibration weight (1000 grams)
- Place the next required weight onto the center of the platform
- When the last required calibration weight is removed, the display will return to zero to indicate that calibration is complete and will return to the normal weighing mode

SPECIFICATIONS

Model#	OPH-T02	OPH-T302	OPH-T502	OPH-T602	OPH-T2001	OPH-T3001	OPH-T5001	OPH-T6001
Capacity	200g	300g	500g	600g	200g	300g	500g	600g
Readability	0.01g				0.1g			
Repeatability	0.02g				0.2g			
Linearity	0.02g				0.2g			
Dimension	7" x 10" x 3" / 17 x 26 x 7cm							
Pan Size	5"/12.5cm diameter					6.25" x 5.75" / 15.5cm x 14.5cm		
Power	Input 100V-240V AC (adapter included)							
Power	Output 6vDC-9vDC/600mA							
Temperature	40°-110°F							
Weight	2 lbs (1kg) approximately							

DIMENSIONS



CONTACT US

Please e-mail sales@optimascale.com for any sales related question

Please e-mail support@optimascale.com for any support related questions

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