

OPERATION


Selecting a Weighing Unit

Weight measurements can be displayed in any of the available weighing units. To select one of these weighing units for displaying weight measurements,

repeatedly press  until the desired unit indicator appears.


If the desired unit indicator does not appear, refer to the section on the Setup Menu for instructions on making the weighing unit available.

Weighing

1. Select the desired weighing unit as explained above.
2. Press  to obtain a zero reading on the Display.
3. Place the object to be weighed on the pan.
4. Wait until the unit indicator appears before reading the displayed weight. When the unit indicator appears, the reading is stable.

Taring

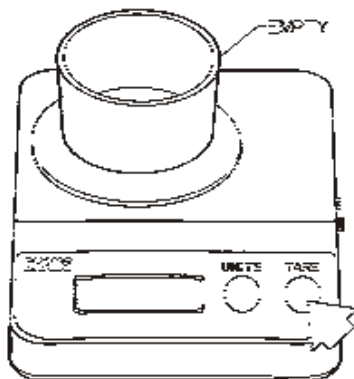
When weighing material or objects that must be held in a container, taring enables the balance to automatically subtract the weight of the container. Only the net weight of the material in the container will be displayed.

1. If necessary, press  with no weight on the pan to obtain a zero reading.

2. Place the empty container on the pan. Its weight will be displayed.

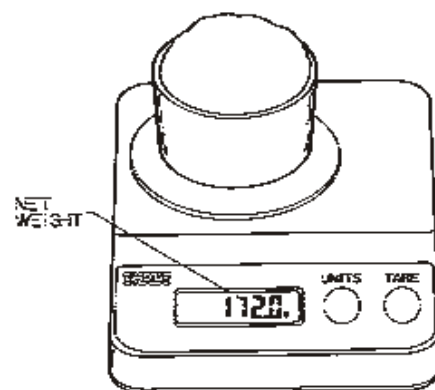
3. Press .

Zero will be displayed and the container's weight will be stored in the balance's memory. The weight of the container will be automatically subtracted from the next weighing.



4. Add the material to be weighed to the container. As material is added, its net weight will be displayed.

5. When the container and its contents are removed from the pan, the tared weight (of the container) will be displayed as a negative number.



(Example)

NOTE: The combined weight of the container and the material must not exceed the capacity of the balance.

The container's weight will remain in

memory until  is pressed again.

Parts Counting

Using the Parts Counting feature, you can place a batch of similar parts on the balance, and the balance will calculate and display the total number of parts. You can also read the total combined weight of the parts. In Parts Counting, the balance assumes a reasonably uniform weight among the parts.

NOTE: In order to use the Parts Counting feature, it must be enabled in the Setup Menu using the Unit Selection submenu.

To start Parts Counting,

repeatedly press  until "Con" is displayed.



1. Place an empty parts container on the pan,

then press  to tare the balance.

2. When  is released,

"Add 5" will be displayed. This is the default for the initial sample size. To set the sample size to 5, 10, 20, 30, 40, or 50 parts:

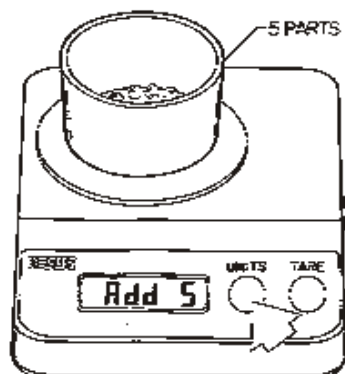


repeatedly press  until the desired quantity is displayed.

(Larger samples yield more accurate results.)

3. Add the sample number of parts to the container,

then press 



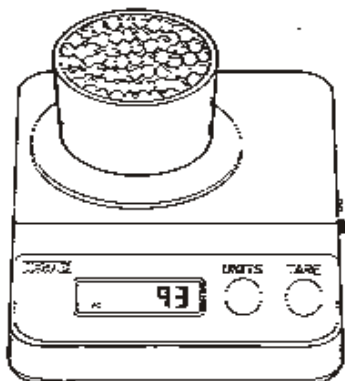
The balance will calculate the average part weight based on the net weight of the initial sample, and then display the current number of parts.

"PC" will also appear in the lower left hand portion of the Display indicating that the balance is in the Parts Counting mode.

NOTE: If the message "PCErr" appears on the Display, the count error due to weighing inaccuracies of the initial sample, exceeds 1 percent.

"PCErr" will be displayed briefly, then the balance will proceed with counting the parts. Increase the sample size for more accurate results.

4. Add parts as desired, and read the quantity on the Display.



(Example)

5. To read the net weight of all of the parts on the balance,

press 



(Example)

The net weight will be displayed in the default power-on units (see Setup Menu). Repeatedly pressing the UNITS button will cause the Display to switch between the parts quantity and weight.

NOTE: If in the Setup Menu, the default power-on unit was set for Parts Counting, the balance will choose the next available weighing unit to display the weight.

- If you wish to establish a new initial sample size, first remove the container.

Press and hold  until "Con" is displayed, then repeat the procedure from step 1.

- To exit Parts Counting,

press and hold  until "Con" is displayed.

Repeatedly press  until the desired weighing unit indicator is displayed.

CALIBRATION

The balance has been calibrated before shipment, however, it should be checked before use and recalibrated if necessary. Calibration could be influenced by factors such as:

- Variations in the earth's gravitational field at different latitudes of the world
- Rough handling
- Changes in work location

CT Series balances are calibrated in two ways - for Span and Linearity.

- Span calibration resets the balance's weighing range using two weight values: zero, and a weight value at or near the balance's specified capacity (the CT600 and CT6000 use a weight value one-half of the balance's capacity).
- Linearity calibration minimizes deviation between actual and displayed weights within the balance's weighing range. Three weight values are used: zero, a weight value at the midpoint of the balance's specified capacity, and a weight value at or near the balance's capacity.

The calibration procedures only take a few seconds to perform and should be performed as necessary to ensure accurate weighing. The calibration weights required to perform the procedures are listed in the following table:

Model	Linearity Calibration Weight	Span Calibration Weight
CT10	5g	10g
CT200	100g	200g
CT600	600g	*300g
CT1200	500g	1000g
CT6000	6000g	*3000g

Linearity calibration procedure requires both the Linearity and Span weight. Span weights are supplied with balances. Linearity weights are available as optional accessories (see page 28).

* Span weight for CT600 and CT6000 is one-half of the balance capacity.

Calibration Button

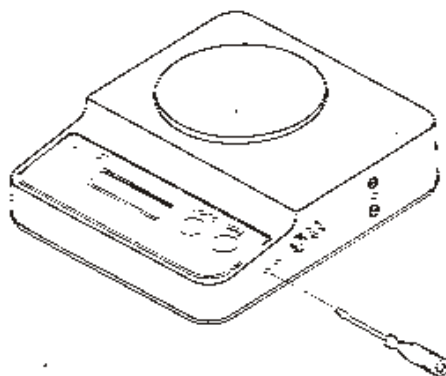
The calibration button can be seen inside the hole located on the right side of the balance, closest to the front of the balance. If there is a hole plug in the hole, remove it to expose the calibration button.



Span Calibration

Before beginning this procedure, allow the balance to warm-up for about 5 minutes. Make sure the correct calibration weight is available.

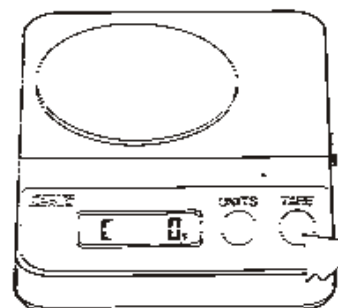
1. Remove all weight from the pan.
2. To start calibration, press the calibration button using a long narrow object such as a small screwdriver or pencil.



3. When the calibration button is released, "C 0g" will appear on the Display indicating that no weight should be on the pan.

With no weight on the pan,

press 



4. When  is released,

the Display will show "- C -" briefly, then "C" followed by the value of the calibration weight which must be placed on the pan.

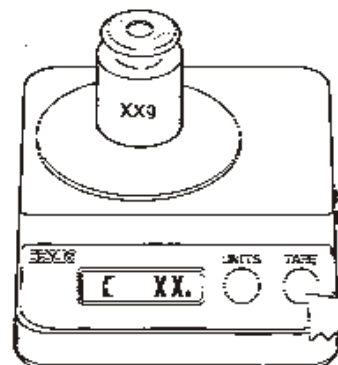


DO NOT disturb the balance when "- C -" is displayed. The balance is waiting for a stable weight reading and disturbances will result in improper calibration.

5. Place the required weight on the pan,

then press 

(The value displayed indicates the total weight which must be on the pan. If multiple weights are used, their total combined weight must be equal to the displayed value. Stack multiple weights one on top of the other to keep weight centered on the pan.)



The Display will show "- C -" while the balance recalibrates itself. DO NOT REMOVE THE WEIGHT(S) AT THIS POINT. When the balance returns to the normal weighing mode (the Unit Indicator will appear), Span calibration is completed and the weight can be removed.

Linearity Calibration

Linearity calibration has been performed before shipment and should not need to be repeated. Normally, only Span calibration is needed to keep the balance properly calibrated. If it is determined that Linearity calibration is needed, use this procedure.

Two calibration weight values are required to perform the Linearity calibration procedure. Before beginning this procedure, allow the balance to warm-up for about 5 minutes. Make sure the weights are available.

1. Make sure the balance is OFF and all weight is removed from the pan.
2. To start Linearity Calibration, press and hold the calibration button while switching the balance ON. Use a long narrow object such as a small screwdriver or pencil to press the calibration button.

3. When the calibration button is released, "C 0g" will appear on the Display indicating that no weight should be on the pan.

With no weight on the pan,

press 

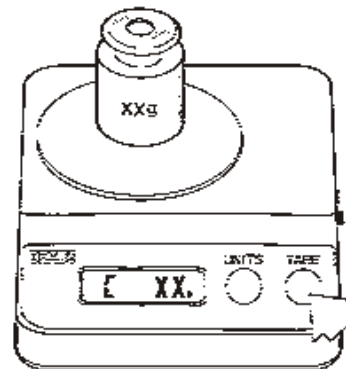
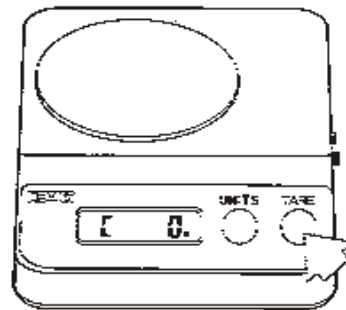
4. When  is released,

"-C-" will be displayed briefly, then "C" followed by the value of the first weight which must be placed on the pan.

DO NOT disturb the balance when "-C-" is displayed. The balance is waiting for a stable weight reading and disturbances will result in improper calibration.

5. Place the required weight on the pan,



then press 



6. When  is released,

the Display will show "-C-" briefly, then "C" followed by the value of the second weight which must be placed on the pan.

(The value displayed indicates the total weight which must be on the pan. If multiple weights are used, their total combined weight must be equal to the displayed value. Stack multiple weights one on top of the other to keep weight centered on the pan.)

7. Place the second weight on the pan, then press . When  is released, "-C-" will be displayed while the balance recalibrates itself.

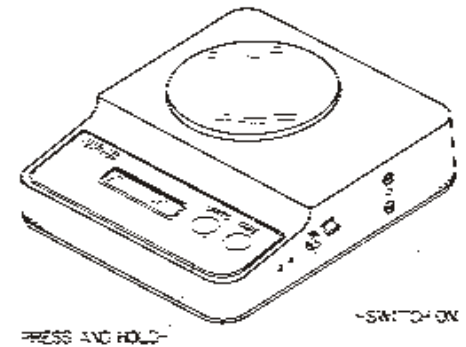
DO NOT REMOVE THE WEIGHT(S) AT THIS POINT. When the balance returns to the normal weighing mode (the Unit Indicator will appear), Linearity calibration is completed and the weight(s) can be removed.

SETUP MENU

CT Series balances contain a "Setup Menu" which permits you to specify which balance functions and weighing units will be active when operating the balance. Functions such as Auto Zero Tracking and High Speed Display Update can be switched on or off using the Setup Menu. Also, the various weighing units (grams, ounces, pounds, etc.) can be switched ON or OFF in the Setup Menu. This section explains how to access and use the Setup Menu.

To access the Setup Menu, first make sure the balance is OFF.

1. Press and hold  while switching the balance ON.



2. The segment check will appear briefly and then the word "SETUP" will be displayed.

When "SETUP" appears, release 