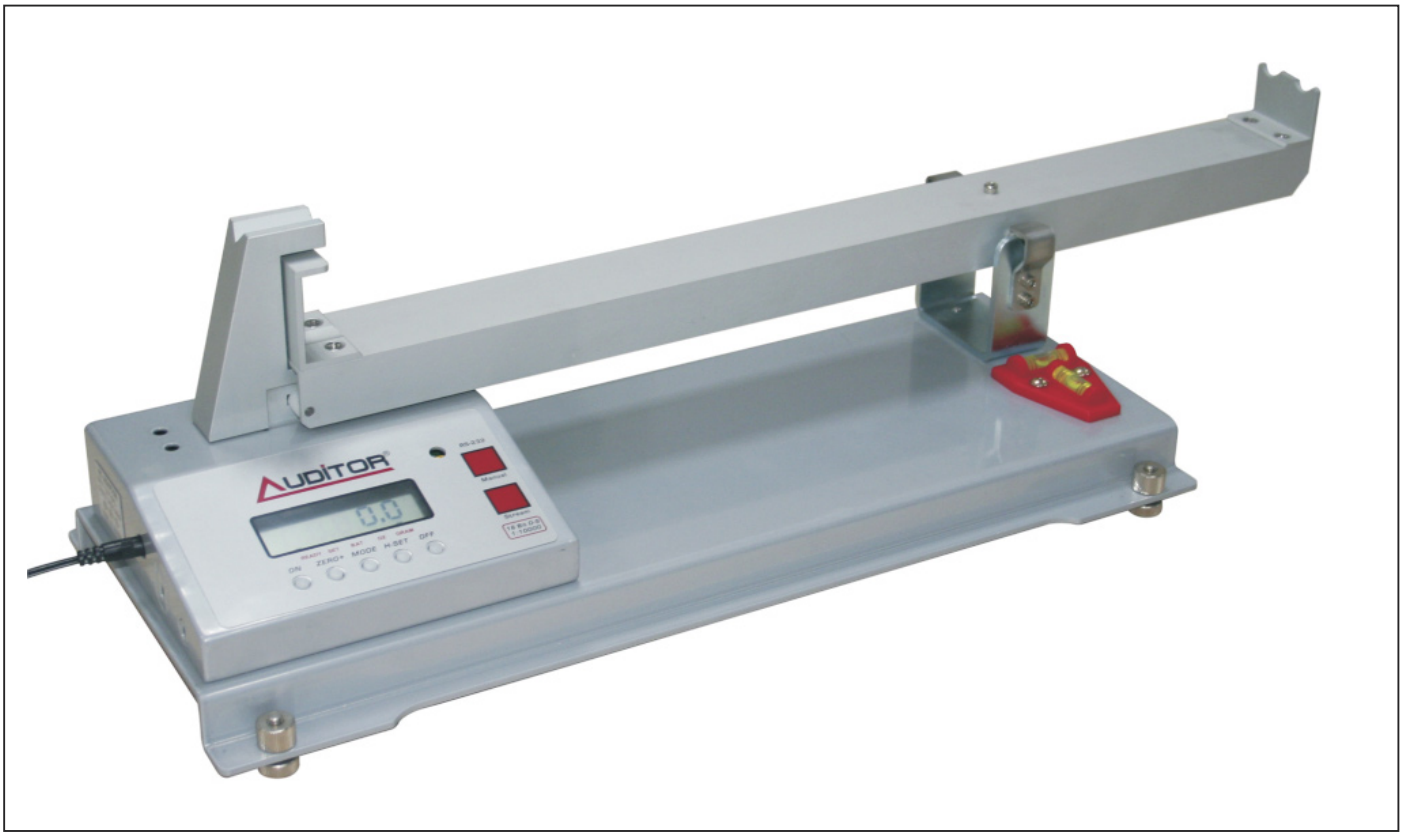
THE GOLFWORKS®

Instructions For:

Auditor Professional Digital Swingweight Scale

Code: **GM1048**

14" FULCRUM CLASSIC DIGITAL SWING WEIGHT SCALE



OPERATION MANUAL
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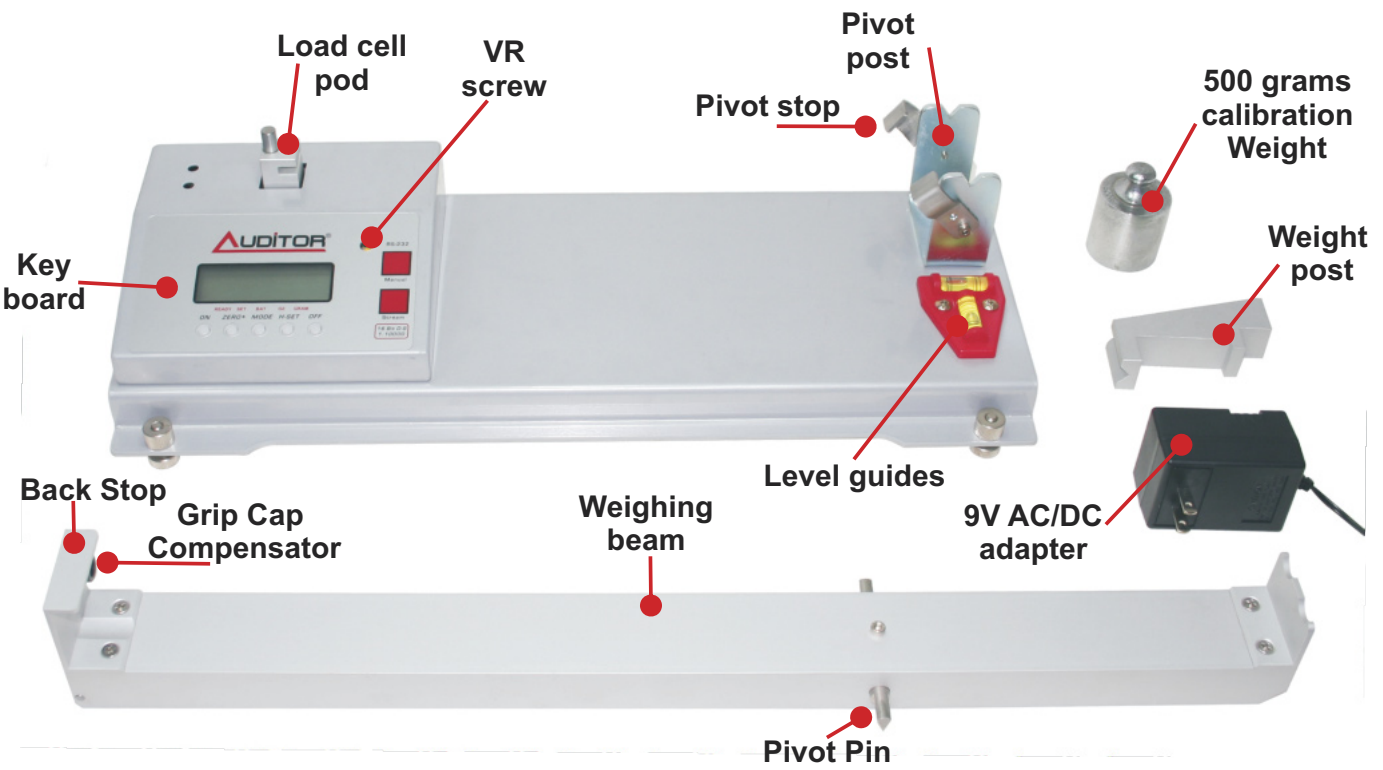

Introduction

The Auditor Digital Swing-Weight Scale is designed for those demanding clubmakers who want; speed and accuracy when swing weighting golf clubs. With these two essential features, the Auditor swing weight scale can weigh heads, shafts and grips in pre-assembled or component forms to the nearest 0.1 gram and 1/3 of a swing-weight point.

General guide lines & instructions

Unpack the Digital Swing-Weight Scale and check that there are no parts missing or damaged. If parts are missing contact **sales@golfmechanix.com** for assistance. The following parts are included:

-Basic unit with control panel and display
-Weighing pod.
-500-gram Calibration weight
-9 volt AC/DC adapter
-A 14-inch fulcrum weighting beam.
-Instruction manual.

Installation check List

-Familiarize yourself with the scale parts prior to assembly and how the parts should be put together.
-Read and understand the manual carefully.
-Familiarize yourself with the calibration procedure.
-Familiarize yourself with the modes of operation, weighing and swing-weighting procedures.

Do not tamper with the scale, or take it apart. This will void the warranty. The scale has very specific settings and unless these procedures are followed the scale will not function properly.

Swing Weight Scale Do's and Don'ts

Do not initiate the calibration procedure or alter the factory defaults unless you understand the instructions clearly.

Do not tamper with the VR screw located on the front panel. This screw does not make the scale run better, improve precision, increase its capacity or stabilize the display. The VR is used only when the calibration procedure requires it!

Tampering with the VR will cause the scale to malfunction or even worse damage the precision screw beyond repair. **Damaged VR screws will automatically void the warranty.**

The swing weight scale is factory set at 0.2 gram precision. If the displayed value is unstable, the probable cause is wind draft, golf club wobble or temperature variations in the workshop.

Do not **overload** the weighing beam. When **"Error"** is shown on the display, immediately remove any heavy objects off the beam.

When the swing weight of a club is out of range, the scale will revert to a moment reading.

Do not leave clubs or any other items on the scale when not in use. This may damage the Load Cell and lead to incorrect readings.

WARNING! DO NOT OVERLOAD THE WEIGHING PAN OR APPLY EXCESSIVE PRESSURE ON IT!

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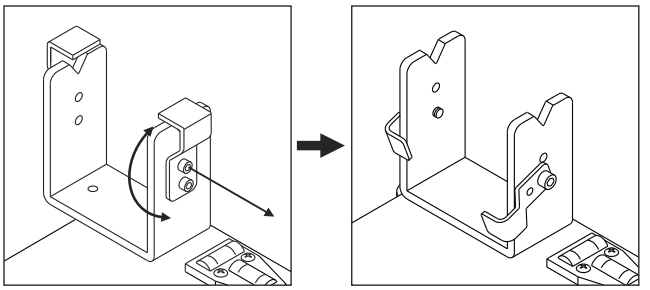
Step 1

Place the scale on a flat, level surface with enough room to allow swing weighting golf clubs. It is best to locate the scale away from direct sunlight, heaters, duct vents, bench grinders and the like as they may interfere with the proper functioning of the scale.

Step 2

Remove the upper screws holding the pivot side stops to expose the pivots.

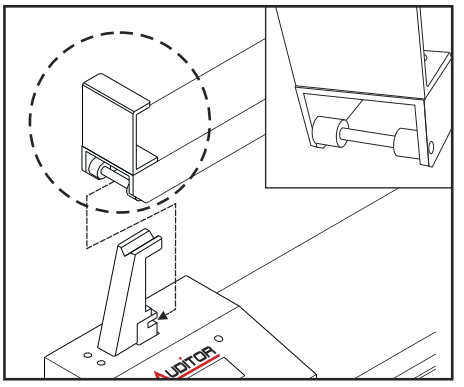


Step 3

Insert the weight pod into the load cell receptacle. Do not push hard as this may damage the load cell assembly.

Step 4-1

Before mounting the weighing beam on the scale, locate the load hook just underneath the weighing pod. This is where the weighing beam pin has to slot into. The spacers on the beam must be wide apart, for the beam to fit over the load cell hook.



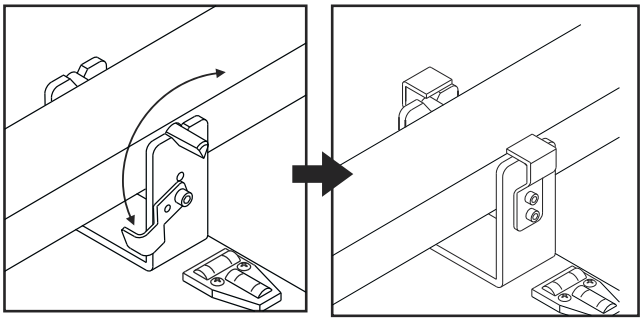
Step 4-2

Insert the beam at a slight angle with the back stop towards the weighing pod, and the white spacers wide apart. Mount the beam so that the pin rides inside the load cell hook as shown. Then lower the beam so that the pivots ride on the front posts as shown.

When done, make sure the beam is seated properly and free to move without jamming.

Step 5

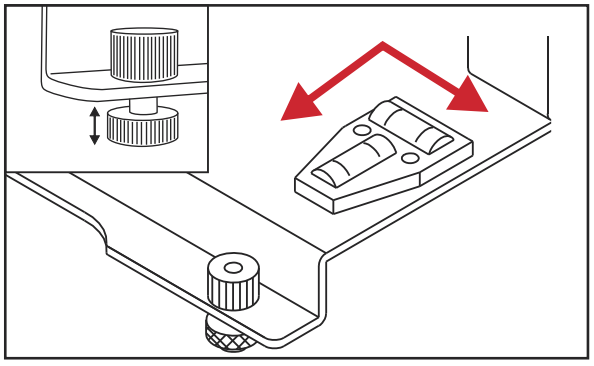
Return the pivot side stops to the upright position and replace the two screws previously removed to lock it in place.



Step 6

Using the bubble level mounted on the base, adjust the four feet to level the scale. The scale should be as level as possible to give the most accurate readings.

The feet are adjustable from the bottom nut and locked into place with the top nut.



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Step 7

Plug in the AC adapter plug into a power source and to the electronics, then turn the scale to **ON**. When the start up procedure is complete the scale will read “0.0” and the ready indicator will light up.

Step 8

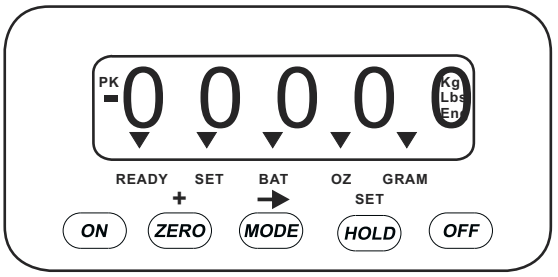
To make sure that the scale is properly setup place the calibration test weight on top of the weighting pod. The display should read 500 grams ± 0.2 gram.

Important!

If the scale does not display the correct value ± 0.2 grams, it may be necessary to run a quick setup check, prior to forcing a routine calibration. The following checks must be carried out:

1- The beam must be correctly mounted. A slight clicking sound must be heard when the beam is pressed at either ends, indicating that the pivot is riding smoothly over the supports.
2- Check that the weighing pod is not binding against the housing or the beam back stop.
3- Check that the pivot is not binding against the posts or side stops.

Operating the swing weight scale



On Turns the scale On

ZERO
Resets the display reading to 0 even if a part is on the weighing tray. Removing the part will show the part weight as a negative value.

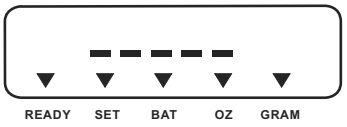
MODE
Used to toggle back and forth between Kgs, grams, Lbs, Ounces and swing weights.

HOLD
Locks the last reading on the LCD, even when no part is weighed . Pressing on the key again will clear the display for the next reading

OFF Tuns the scale off
READY Ready state indicator

OZ Ounce conversion mode indicator
Gram Gram conversion mode indicator
Kg Kilogram conversion mode
Lb Pounds conversion mode

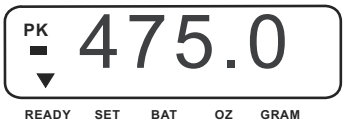
Error messages



The scale is over loaded. That is the weight or moment of the golf club

Exceeds the load capacity of the scale. Remove the club as soon as the condition is encountered! Failure to do so may damage the load cell. If the condition persists: Either the weighing beam is jammed and or the load cell broken.

Faded or sluggish LCD display is an indication of a broken load cell.



Frozen display. Peak mode is engaged. Pressing “mode” restores normal operation.

If you are unable to get a swingweight reading and the scale only displays the weight of the club, the club you are measuring is out of range. The minimum weight is 326g and the maximum is 538g.

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Swing weight mode

Checking the swingweight of a golf club:

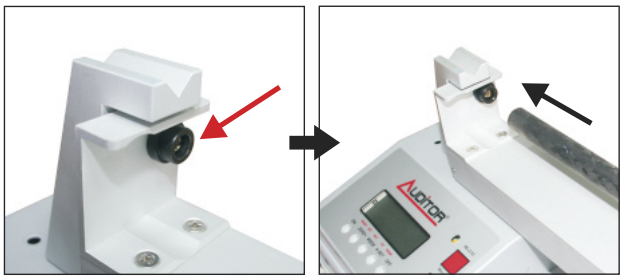
Place the golf club in the weighing beam with the grip cap under the grip back stop and the shaft resting in the cradle. Press the "Mode" key until swingweight is displayed. Please be careful not to ram the golf club against the grip backstop as this may damage the load cell assembly.

Checking the swing-weight of a grip-less club:

Lay a golf grip against the grip backstop and on top of the swing weighing pan, then place a grip-less golf club in the weighing beam as you would on a conventional swing-weight scale.

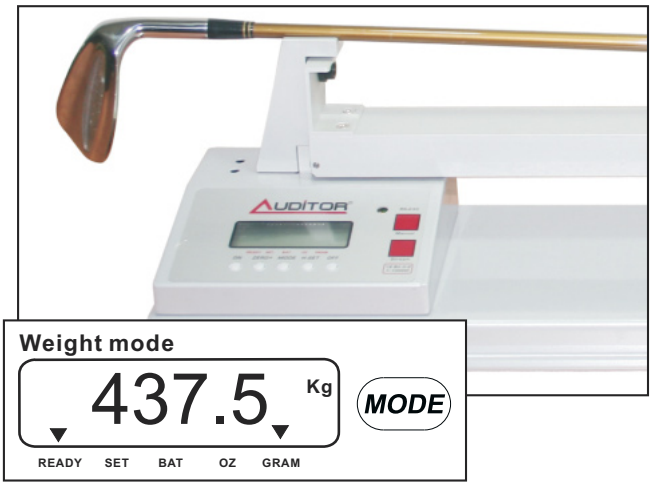
Important tip:

When checking the swing-weight of a grip-less golf club, slide the shaft over the grip cap compensator to maintain adequate accuracy with respect to club length.



Please note:

When checking the swingweight of a grip-less golf club you should not reset the scale by pressing on the zero key. This will automatically engage the tare function of the weighing pan.



Weighing a golf club:

Balance the golf club in the nested V on top of the weighing pod. Press the "Mode" key to toggle between grams & ounces.

Weighing components:

To weight golf club components such a club heads, grips and shafts, simply rest the part to be weighed on top of the weighing pod. Then use the “Mode” key to toggle between grams or ounces to get the desired reading.

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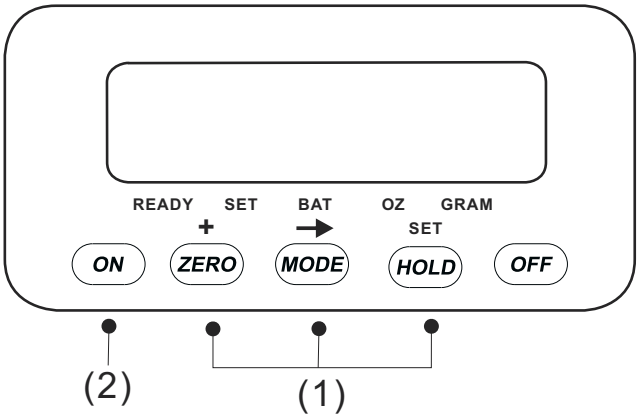
CALIBRATION

The Auditor Digital Swing Weight Scale has been designed for a trouble free operation and factory settings will seldom require adjustments. In order to enhance accuracy it is recommended that the scale be checked regularly.

When checking the scale for accuracy the reading should be within +/- 0.5 gram. If not, a partial re-calibration is required.

BASIC CALIBRATION PROCEDURE

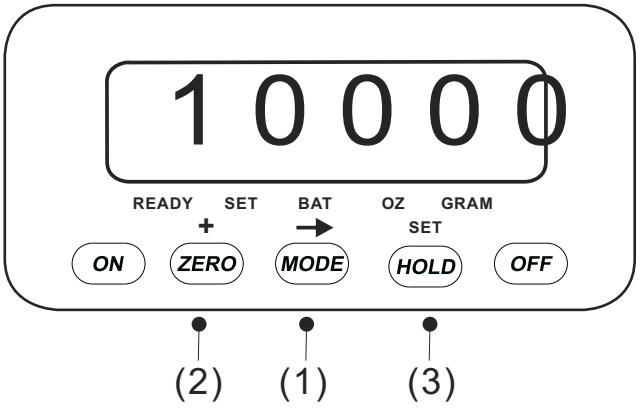
The weighing beam has to be removed before the calibration procedure is initiated.



1) Press on "Zero-Mode-Hold " simultaneously, then press "On". Do not release "Zero-mode-hold" until the start up cycle is complete.

LCD readout after startup cycle.

2)Press "MODE" to move one digit at a time from left to right. Use the "Zero" to change the LCD value to 10000. Then press "Hold".



The LCD readout will change to

3)Place the 500 gram calibration weight in the center notch on top of the pod as shown.

4)Press **"Hold".** The LCD will blank out and return after few seconds displaying 500 (+/- 0.5). If the value is within the range, press **"Hold".** The scale will restart.

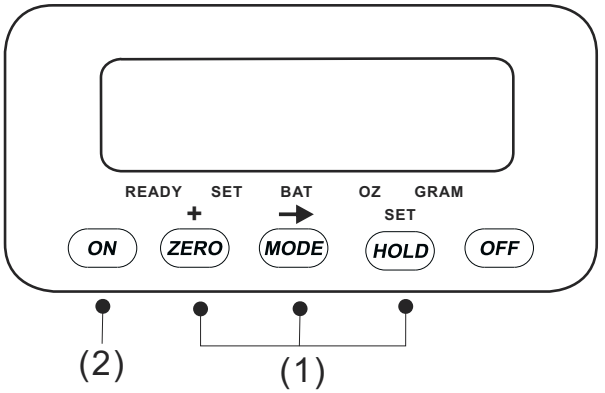
Note:

If during step 3 the value displayed is not within the range specified do the followings:

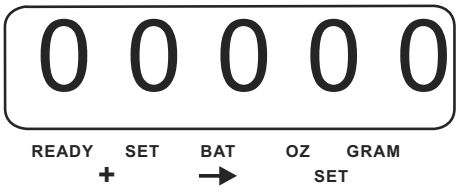
1) Remove calibration weight
2) Press **"Zero"** to clear the display
3) When the display reads "0" repeat step 1 ~3

ADVANCED CALIBRATION PROCEDURE

The advanced scale calibration is recommended only when the factory settings need to be altered, or when the standard calibration fails.

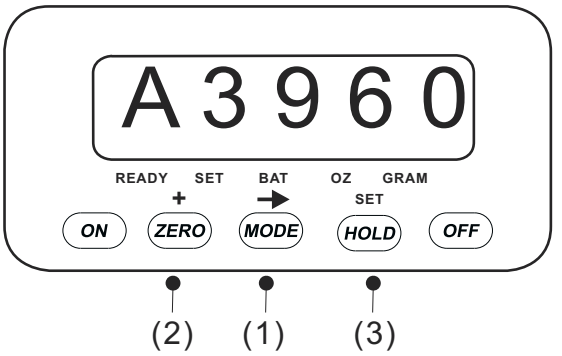


1)Press on **"Zero-Mode-Hold "** simultaneously and then press **"ON"** Do not release **"Zero-Mode Hold"** until the start up cycle is complete.



Lcd readout after startup cycle.

a) Press **"MODE"** to move from left to right.
b) Use **"Zero"** to change the LCD value to A3960. **c)** Press **"Hold".**



61000~6F000

2) The LCD readout will change to a floating number between **61000 and 6F000**. If the value is within the range, press **"Hold",** If not, access the adjustment screw through the hole provided. Turn the screw in small increments to adjust the readout to the correct range. DO NOT push hard or rotate screw more than 3 turns. When finished, press "Hold".

Accessing the adjustment screw through the face plate.

After the adjustment of the floating number is completed and pressing "Hold". The display will read "11005".

The numbers denoted from left to right:

Decimal point: 0=disable 1=enable

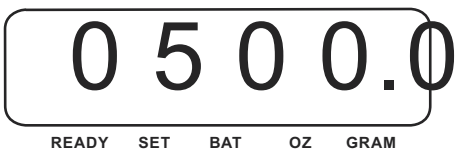
Sleep mode: Auto off 1= disable 0= enable

Capture: Hold=0 Peak capture=1

Resolution: 0=0.1gm,1=0.2gm,2=0.5 gm 3=1gm, 4=2gm, 5=5gm

Sampling rate: 0=1 1=x5,2=x6,3=x8, 4=x12, 5x20,6x36,7=x68,8=x132 numbers of reading per second

To change the parameters value during the set up use the mode key and the zero key to jump from one digit to the next and to toggle the values from 0~9. Use the **"Zero"** and **"Mode"** to change values. Press **"Hold"**.

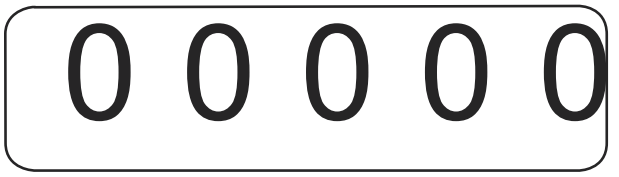


Step 1) The calibration weight value is displayed. If the calibration value is different, use the Zero and Mode key to change the value.

Place the calibration weight on the weighing pod

Step 2) Press **"Hold"...** The LCD will blank out, the LCD displays will show the calibrated weight value (+/-1%). Press **"Hold".** Do not remove calibration weight just yet.

Step 3) The LCD displays "01500.0" This is the maximum safe load limit depending on the



Step 4) The LCD displays "□□□□□". This is the trigger level setting in the "high" position. **Do not alter this value since the trigger function is not available on this model**. Press **"Hold"** to skip.

Step 5) The LCD displays "□□□□□" again. This is the trigger level setting in the "low" position. **Do not alter this value since the trigger function is not available on this model.** Press "Hold" to skip.

The scale will auto-restart with the new calibration settings. ***Remove the weight as machine is starting.***

Special notes on factory default settings

Decimal point setting:
This function enables fractional weighting in 1000 division increments. If the decimal point is disabled the scale will only read in one gram increments.

Sleep mode:
When sleep mode is enabled the scale will turn itself off after 2 minutes of inactivity.

Resolution:
When the decimal point is disabled the scale will automatically round up to the nearest gram or multiple of a gram in 1, 2, 5, 10, 20 and 50 gram increments.

When the decimal is enabled the scale will automatically round up to the nearest fraction of a gram in 0.1, 0.2, or 0.5, 1.0, 2.0 and 5 gram. increments.

Sampling rate:
The sampling rate dictates how fast and how accurate the weight readings are. The lower the sampling rate the faster the readings. This may cause the displayed value to become unstable. For most weighing applications the best sampling rate value is 4

Sampling rate:
The sampling rate dictates how fast and how accurate the weight readings are. The lower the sampling rate the faster the readings. This may cause the displayed value to become unstable. For most weighing applications the best sampling rate value is 4 or 5.

For swing weighing golf clubs and components the best sampling rate value is 6 or 7. The default factory setting is 7 as this allows the displayed value to settle after few seconds even when the club is spring up and down, especially drivers.

In a factory setting where clubs are swing weighted in batches of woods and irons, the sampling rate can be adjusted for irons to a value of 4 or 5. The best setting for woods, and especially drivers the sampling rate value should be at least 6. A value of 7 or 8 is best.