

# ANYLOAD®

## EC100 Counting Scale

Operations Manual (V1611)



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## **1. Introduction**

Thank you for choosing the EC100 Counting Scale. The EC100 is ideal for converting the weight of uniform objects into a reading of a number of items. The EC100 is available in 6 different capacities and incorporates a fast and stable display with a variety of functions. As an integral part of its design, it is equipped with adjustable feet and levelling bubble to ensure accurate weighing as well as a full keyboard with 9 one-touch memory buttons. With a stainless steel platform and full keyboard, these counting scales are ideal for industrial settings, wholesale markets and retail environments in which high accuracy counting functions are equipped.

This manual provides the user's guide in using the product, safety, installation, features and technical specifications, calibration procedures, configurations and other technical related in using the scale.

## **2. Safety Recommendations**

When using this weighing equipment the following recommendations shall be observed for safety:

The weighing machine may only be used with the power adapter supplied exclusively for use with the weighing machine.

Before inserting the power adapter, the user must ensure that the operating voltage stated on the power adapter agrees with the mains voltage.

If not, please contact Customer Service at the address above.

If the power adapter or its cable is damaged, the weighing machine must immediately be disconnected from the electricity supply (pull out the power adapter).

The weighing machine may only be operated from mains electricity supply with a power adapter which is in perfect condition.

If there should be any reason to believe that it is no longer possible to operate the weighing machine without danger, the weighing machine is to be immediately unplugged from the electricity supply (pull out power adapter) and secured against inadvertent operation.

The weighing machine must not be operated in an area subject to explosion risks.

Care must be taken when weighing liquids to ensure that no liquid is spilt into the inside of the weighing machine or into connections on the rear of the equipment or the power adapter. If liquid is spilt on the weighing machine, it must immediately be unplugged from the mains electricity supply (pull out power adapter). The weighing machine may only be operated again after it has first been re-checked by a service technician.

These instructions must be read by each operator of the equipment and must be available at the workplace at all times.

### 3. Preparation

Place the scale horizontally and keep the bubble inside the bubble level aligned with the red circle (See Fig.1).



Correct



Incorrect

(Fig.1)

### 4. Functions

#### 4.1 Key Functions

KEY	Function
<b>WEIGHT</b>	Indicates the gross or net (when the tare function activated) weight
<b>UNIT WEIGHT</b>	Indicates the average or set unit piece weight
<b>TOTAL</b>	Indicate the accumulated total piece number on the platter
<b>NUMERIC (0-9)</b>	To set numeric data for sample number, sample weight or limit number of checking
<b>DECIMAL POINT (.)</b>	To set the decimal position of sample weight
<b>[ZERO]</b>	To set or re-adjust the scale in correct zero

	position for accurate counting operation
<b>[TARE]</b>	To reduce the gross weight on the platter (box or container etc.) as the tare weight
<b>[SAMPLE/UNIT]</b>	To set the counted sample numbers on the platter into scale memory
<b>[UNIT WEIGHT]</b>	To set the known unit weight data into scale in normal operation
<b>[CE]</b>	To cancel the numeric setting data or canceling the previous unit weight data
<b>[QTY/SET]</b>	For the alternation of changing normal counting and quantity check operation
<b>MEMORY [M+]</b>	To memory accumulated counts data, up to 99 counts
<b>MEMORY CANCEL [MC]</b>	To cancel memorized data
<b>[TOTAL]</b>	For the alternation of changing normal counting and memory data recalling
<b>[SAMPLE/UNIT] (lb/Kg)</b>	To select weight unit; Once the unit is selected, the selected unit indicates the different calibration and weighing unit.

## 4.2 Indicator Lamps

LAMP	"ON"
<b>ZERO</b>	When the gross weight is zero
<b>TARE</b>	When tare weight is set
<b>LACK of SAMPLE</b>	When the sample unit weight is not heavy enough for accurate counting operation in case of number of sample setting mode

## 5. Operation

### 5.1 Tare

#### 5.1.1. Reduce tare weight

Place the empty container on the platter. Press [TARE] key then the tare indicator is turned on, the WEIGHT display shows Zero.

Remove the container from the platter after having reduced the weight, the WEIGHT display shows a minus sign.

### **5.1.2. Clearing the previous tare value:**

Remove weights from the platter then press [TARE] key so that the Tare indicator turns off and WEIGHT display returns to Zero.

## **5.2 Sample Settings**

There are two sample settings methods:

### **5.2.1 Number settings:**

This setting is used in the case of counting the unknown unit weight.

Place a certain number of samples on the platter, total weight will be displayed in WEIGHT display

Set the number of samples through numeric keys. Set number will be showed in UNIT WEIGHT display with flickering.

Press the [SAMPLE/UNIT] key, UNIT WEIGHT display shows the averaged unit weight per piece and TOTAL display shows the number of samples.

### **5.2.2. Unit weight setting:**

This setting is used in the case of unit weight is already known.

Set the unit weight data, then numbers will be displayed with flickering in UNIT WEIGHT. Press [UNIT WEIGHT] key, then flickering of UNIT WEIGHT display will stop.

To cancel previous unit weight and sample setting, press [CE] key.

### 5.3. Alarm Function

To avoid counting error, the scale has useful alarm function to inform an operator the counting error feasibility in case of sample number shortage or weight shortage of sample unit weight

#### 5.3.1. Sample number alarm:

Lack of Sample light will turn on if the total weight of sample is below the limit value, by adding the sample piece with counting until the lack of sample light is turned off.

Then set the new numbers of sample through numeric key then press [SAMPLE/UNIT] key.

**FREE SAMPLE FUNCTION** is the same as the above; scale will automatically adjust and calculate new average unit weight if operator add samples in slowly with the numbers.

**FREE SAMPLE FUNCTION** will not work if the displayed number exceeds 1,000,000 pieces.

#### 5.3.2 Unit weight alarm:

Lack of Piece Weight light will turn on if the averaged unit weight or set unit weight is not enough for accurate counting operation. Operator may use scale even the light is on, but counting error might occur.

#### 5.3.3. Alarming by press [QTY/SET]:

THE SCALE has useful check function to inform operator that the total piece counts quantity has reached the lower limit and the upper limit desired. This function is designed for packing purpose. For example, if the operator wishes to count 1,000 pieces for every package, he can set the lower limit and the upper limit as 1,000 pieces as following:

- (1) Press [QTY/SET] enter  
quantity alarm  
menu.
- (2)
- (3) Setting quantity alarm: repeat step (1), enter quantity alarm menu, press [ZERO] key to select, select "CH=on", this means quantity alarm is turned on. If "CH=off" is selected, this means quantity alarm is turned off.

- (3) Setting lower limit and upper limit: repeat step (1), enter quantity alarm menu, press **[TARE]** key to select. when the display shows "L=0000"(L for flash), press digital key, input "990" then press **[TARE]** key again, input lower limit is complete. The display will show "H=0000"(H is flashing), press digital key, input "1010" then press **[TARE]** key again, input upper limit is complete.
- (4) Exit the quantity alarm menu: press **[QTY/SET]** key to exit the quantity alarm menu.

## 6. Functions settings

### 6.1 Backlight Function

1. Turn off the scale.
2. Press and hold **[UNIT WEIGHT]** key to turn on the scale, the display will  
Show ---- and then b=ON/OFF on the first line, A-XX on the second  
line  
and L=ON/OFF on the third line. Press **[QTY/SET]** to select activate or  
inactivate the function of the beep. Press **[TARE]** to select auto off  
time. Press **[ZERO]** key to select activate or inactivate the function of  
the backlight.

**6.2 UNIT WEIGHT function:** when there is no weight on the platform, press **[SAMPLE/UNIT]** key to select the unit (kg or lb). When there is something on the platform, press **[UNIT WEIGHT]** key to sample

### Unit weight memory

1. Turn on the scale
2. Press 0 to 9 to input the unit weight you want to save.
3. Press **[STORE]** to confirm the unit weight and then the display will show "c xxx".
4. Press M1 to M9 within 2 seconds, the third line of the display will show " - - -".



### **Unit weight transfer**

1. Press **[CE]** to clear the memory, the second line of the display will show 0.
2. Press M1 to M9 to transfer the unit weight from memory.

### **Total weight clear**

1. Press **[TOTAL]** to show total pieces on the third line of the display.
2. Press **[MC]** to show the unit which will be cleared.
3. Press **[CE]** to confirm clear.

## **7. CALIBRATION**

### **7.1 When to calibrate?**

Calibration may be required when it is initially installed, if the scale is moved to a substantial distance.

This is necessary because the weight of a mass in one location is not necessarily same in another location. Also, with time and use, mechanical deviations may occur.

### **7.2 Linearity calibration:**

1. Turn on the scale and then turn it off.
2. Press and hold **[TARE]** and then turn on the scale, LCD will show LINE on first line, CAL-0 (flashing) on the second line and AD value on the third line.
3. When the AD value is stable, press **[ZERO]** to calibrate ZERO, after 2 or 3 seconds, the second line will show 1.0000.
4. Place 1kg weight on the platform, and press **[ZERO]** when the stable A/D value is displayed. After 2 or 3 seconds, the display will show 2.0000.
5. Place 2kg weight on the platform, and press **[ZERO]** when the stable A/D value is displayed. After 2 or 3 seconds, the display will show 3.0000.

6. Place 3kg weight on the platform, and press [ZERO] when the stable A/D value is displayed, after 2 or 3 seconds, the display will show 0.0000 and now calibration is finished.

7. Turn off the power, then turn on the power again, place some weights on the platform to make sure the weighing is correct. If not, repeat steps 1-6

### 7.3 Single segment calibration:

1. Turn on the scale and then turn it off.

2. Press and hold [ZERO] and then turn on the scale, LCD will show SCALE on first line, CAL-0 (flashing) on the second line and AD value on the third line.

3. Press [SAMPLE/UNIT] to select calibration unit kg or lb.

4. After the stable A/D value is displayed, press [ZERO] to calibrate ZERO. After 2 or 3 seconds, the second will show 0.

5. Set calibration weight through input 0 to 9 and then place the calibration weight you had set, Press [ZERO] to calibrate. After the stable indicator light is on, press [ZERO] key, the second line of display will show 00000 and now calibration is finished.

6. Turn off the power, then turn on the power again, place some weight on the platform to make sure the weighing is correct. If not, repeat steps 1-6.

## 8. Specifications

Part number	Capacity	Graduation	Platter Size (mm/inch)
EC100-1.5	1.5kg / 3.3 lb	0.05g/0.0001 lb	227x337 / 9'x13-1/4'
EC100-3	3kg/ 6.6 lb	0.1g/ 0.0002 lb	227x337 / 9'x13-1/4'
EC100-7.5	7.5kg/ 16.5lb	0.25g/ 0.005 lb	227x337 / 9'x13-1/4'
EC100-15	15kg/ 33lb	0.5g/ 0.001 lb	227x337 / 9'x13-1/4'

EC100-30	30kg/ 66lb	1g/ 0.002 lb	227x337 / 9'x13-1/4'
EC100-50	50kg/ 110lb	2g/ 0.005 lb	227x337 / 9'x13-1/4'
Net/gross weight	4.2kg / 5.1kg		
Package	Standard carton: 39 × 39 ×15.5 (cm <sup>3</sup> )		
	2Units in one box: 40×40×35 (cm <sup>3</sup> )		
Power source	Recharge Batteries or AC/DC		
	Adapter 10~12V/500mA (optional)		

## 9. Features

Auto zero tracking	Auto calibration
Low batter indication	Auto backlight
Large LCD	Unit exchange: kg, lb
Large square pan	Counting function
Stability indication	

## 10. Error Codes

Error Codes / Problems	Reason	Trouble Shooting
ERR-O	Over load	Use within capacity
ERR-Z	1). exceed Zero tracing range when powered ON. 2). Forgot to place platform when linearity calibration	1). Tack off the weight when powered on 2). Place platform and then recalibrate scale (linearity calibration) 3) Load cell maybe crushed
ERR-S	inner code unstable when switched on	1) Make sure the scale is stale when powered on 2) Low battery, change or charge battery 3) Warm up the scale 4) load cell maybe unstable
NOCON	Probably the scale selected has no connection	Check the scale if it has connected to the load cell.