

# Kilotech KWS-SW Series



Counter-top weighing scale

NTEP (USA) and Measurement Canada approved

[www.kilotech.com](http://www.kilotech.com)

# KILOTECH

## KWS SW series

## Weighing scale

**NOTE:** Le manuel en Français est disponible au [www.kilotech.com](http://www.kilotech.com).

Thank you for purchasing a Kilotech Model KWS SW Weighing Scale. Please read all operating instructions carefully before using the scale for the first time.

This scale is approved by the US and Canadian governments and can be used in a “Legal for Trade” application. If used in a “Legal for Trade” application, the scale must be inspected and sealed as per the local legislation.

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## 1.0 Precaution before Using the Scale

### 1.1 Environment

The scale should always be used for its intended use (see [www.kilotech.com](http://www.kilotech.com)) and its intended capacity.

This scale is not protected against water; DO NOT spray with liquids as this could damage the electronics or could cause serious injury. To clean the scale, wipe it with a soft humid cloth and if necessary, use a non-abrasive household cleaner.

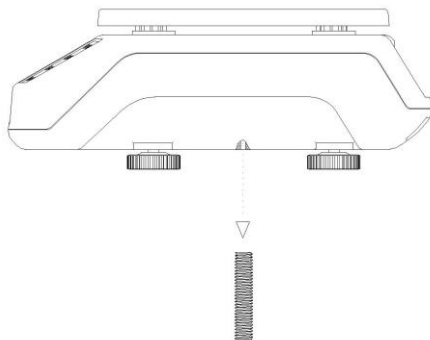
The scale should always be used in an environment, which is free from excessive air currents, corrosives, vibration, and temperature or humidity extremes. These factors will affect displayed weight reading.

**DO NOT** install the scale:

- Next to open windows or doors causing drafts or rapid temperature changes.
- Near air conditioning or heating vents.
- Near vibrating, rotating or reciprocating equipment.
- Near magnetic fields or equipment that generates magnetic fields.
- On an unstable work surface
- In a dusty environment
- In direct sunlight.

## 1.2 Protection in the transportation

Before the initial use, please refer to the following drawing to take off the protection screw. When packing the scale for transportation, install the protection screw on the scale in order to avoid any damage to sensitive components.



## 1.3 Leveling the Scale

The scale is equipped with a level indicator on the left bottom side of the front panel and four adjustable leveling feet. Adjust the leveling feet until the bubble appears in the center circle of the indicator. Then lock the feet in place using the lock nuts. Repeat this procedure each time the scale is moved to a new location.

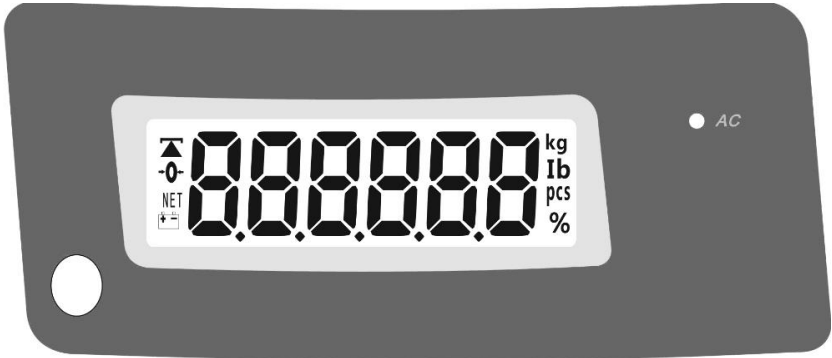
## 1.4 Turn on Scale

Do not turn on scale with anything on the platform. The switch is located on the right side of the scale. The scale will start to count down from nine to zero and will display the max capacity of the scale in the display. The scale is then ready for use.

Allow the scale 15-30 minutes to warm up prior to use.

## 2.0 Explanation Of Display Symbols

### LCD Display



### Meaning of the Symbols

→0← (Zero): Scale is in ZERO mode.

NET: Scale is in TARE mode.



: Low Voltage



(Stable): Scale is in stable mode.

**Kg/g/lb/oz:** Indicates the current measuring units in weighting mode.

**pcs:** Scale is in counting mode.

## 3.0 Keypad Functions

Botton	Primary Function	Secondary Function
<b>Zero/Enter</b>	Zero the scale	Accepts the current setting on the display.
<b>Tare/ ►</b>	Performs a tare operation.	Move the active digit to the right
<b>Units/ ▲</b>	Changes the weighing Unit.(kg/g, lb)	Increment the active digit.
<b>Mode/ ◀</b>	Select weighing or counting mode.	Move the active digit to the left.
<b>Check-W./ ▼</b>	Set the limits for check weighing	Decrease the active digit

## 4.0 Operations

Turn on the scale, the scale will be on the weighing mode. Press “**Mode/ ◀**” key to choose the weighing or counting functions.

### 4.1 Weighing mode

#### Units selection

Press the “**Units/▲**” Key to choose the weighing units and the display will be changed to the new value with units shown..

If the user wants to use the HI-LO Check Weighing function, select the weighing mode first. Once in the HI-LO check-weight is selected, the weighing unit can not be changed. Give a long press of “**Units/▲**” Key to clear the check range and then change the weighing unit.

### **Tare function**

Tare weight is the weight of a container and can be subtracted by placing an empty container on the scale pan. When the display is stable, press the “**Tare/ ►**” key and the display will become zero and the display will have a tare indication.

Cancel the tare function by pressing the “**Tare/ ►**” key with no weight on the scale pan.

Tare range is the full capacity of the scale.

### **Zero Function**

If the zero shifts during operation, press the “**Zero/Enter**” key to set it to zero.

The Zero function is only active over a  $\pm 2\%$  Of capacity range.

EXAMPLE: If you are using a KWS-SW30 (30kg) scale,  $2\% \times 30\text{kg} = 600\text{g}$ . If the scale is **NOT** in TARE mode **AND** platter is empty **BUT** the scale indicator reads between -600g and +600g, press the **ZERO/ENTER** key to reset the scale to zero.

## 4.2 Counting Mode

The counting mode on this scale is a secondary function for when you only need to count from time to time. If regular counting is required, a counting scale would probably be more appropriate. See the KCS 2000 at [www.kilotech.com](http://www.kilotech.com) for a true counting scale with 299 item memories and 5000 item memory optional.

**Sampling** (Press **Mode/ ◀** key in weighing mode to enter into counting mode)

- a. After entering into counting mode, press the “**Units/▲**” key to select the sample size (10,20,50,100,200,500,1000pcs).
- b. Put the same quantity of pieces (the sample) on the scale and press “**Zero/Enter**” key. When the symbol “c” disappears the sampling procedure is finished and you can start to use the counting function. You can count as many different batches of the same product as you want.
- c. If you change product to count, re-do steps a and b.
- d. Press **Mode/ ◀** key again to back to weighing mode.

### **NOTE:**

If the unit weight is too small (less than 0.1 of a scale division), the display will show “E4”.

## 5.0 Preset Check-weighing Function

Users can set a Hi – Lo range for check-weighing. When the weight of objects on the pan is within, or outside of, the preset weight range, the scale will beep repeatedly and the displayed weight will flicker.

### Procedures

- a. Press **Check-W./ ▼** to enter into the presetting check-weight mode.
- b. When display shows "H00000", key in the desired high limit value.  
(Use **Units/ ▲** or **Check-W./ ▼** key to increment or decrease the shifting digits and use **Mode/ ◀** or **Tare/ ▶** key to move the shifting digits to left or right. Then press **Zero/Enter** key to confirm.
- c. When the display shows "L00000", key in the desired low limit value the same way as high value.
- d. After low limit value is set, press **Zero/Enter** key for confirmation and exit from the limits setting mode.

**Note:** The display will show "Err 5" when low limit value is set to be higher than the high limit value.

There are two types of check-weighing function alarms. You can set the check-weighing function to operate in either of the following types. (Please see Check alarm type of Parameters settings in 6.2.)

★ Within the set parameters type

The scale beeps and display value flickers when total weight falls inside the set range. When the weight is outside the set range, display will show “H” or “L” before the total weight.

★ Outside the set parameters type

The alarm sounds beeps and display value flickers only when total weight falls outside the set range. When it is between the both limits value, beeper will be off and the display won't flicker.

► **Clear high / low preset value**

In order to clear the settings follow the above preset procedures and key in “0” directly for high and low limit values.

## 6.0 Scale Parameters Setting

Press **Mode/ ◀** and **Zero/Enter** key at the same time in weighing or counting mode to enter into parameters setting.

### 6.1 Backlight type

Press **Units/ ▲** or **Check-W./ ▼** to set the backlight type to be “bl. 1”, “bl. 2” or “bl. 3”. Please refer to the following.

Model	backlight type	Description
LCD display	bl. 1	Automatic backlight
	bl. 2	Backlight is always on
	bl.3	Backlight is off

Press **Zero/Enter** key to confirm and return to next setting.

### 6.2 Check-weighing alarm type

Press **Units/ ▲** or **Check-W./ ▼** to set the check alarm type to be “IN” or “OUT”. (Please refer to Section 5.0 Preset check-weighing range.)

Press **Zero/Enter** key for confirmation and exit from the parameter setting mode.


## 7.0 Power Supply & Battery Operation

### POWER SUPPLY

- Rechargeable battery 6v/5Ah
- DC 9V/700 mA

### BATTERY OPERATION

The scale can be operated from the battery if desired. The battery life is approximately 80 hours.

When the battery needs charging a symbol “  ” on the weight display will turn on. The scale will still operate for about 10 hours after which it will automatically switch off to protect the battery.

To charge the battery, simply attach the power supply module to the scale and plug in. The scale does not need to be turned on.

The battery should be charged for 12 hours for full capacity.

There is an LED to indicate the status of battery charging on the right of display. When the scale is plugged into the mains power the internal battery will charge. If the LED is **Green** the battery has been charged. If it is **Red** the battery is nearly discharged and **Yellow** indicates the battery is increasing the charge level.

As the battery is used it may fail to hold a full charge. If the battery life becomes unacceptable then contact your distributor.

**Note:** The battery should be recharged every 3 months if the scale is not used for a long period of time.

## 8.0 Error message

During the initial power-on testing it is possible the scale may show error message.

The meaning of the error messages is described below.

<b>Error codes</b>	<b>Possible causes</b>	<b>Remedy</b>
<b>E1</b>	EPROM data lose.	Recalibrate the scale.
<b>E2</b>	The initial zero is outside the range of the factory setting for zero.	1. Check if there is something on the pan or something touches the top body when switch on the scale, move the load and switch on again. 2. Recalibrate the scale.
<b>E4</b>	Lack of sample weight	Place on more sample weight.
<b>E5</b>	The low limit value is set higher than the high limit value.	Reset the limit values.
<b>--OL--</b>	Load exceeds scale capacity.	Reduce the load on the pan.
<b>-----</b>	System is busy.	Just wait.
<b>LOBAT OFF</b>	Low voltage	Charge the battery.

If the error message is still displayed after above solutions have been tried, contact your dealer for further support.

If scale is misused or banged etc., re-calibration may be required. This should be done by a specialized scale professional. If your distributor is an industrial scale dealer, he will be able to do this for you. If you do not know who to contact, call the Kilotech customer service desk at 800-694-4445 (Canada) or 877-328-5988 (USA) and we will recommend someone.