

Avery Weigh-Tronix

# ZK810

## Counting Scale



## User Instructions

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# 1 General information and warnings

## 1.1 About this manual

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This manual is divided into chapters by the chapter number and the large text at the top of a page. Subsections are labeled as shown by the 1.1 and 1.1.1 headings. The names of the chapter and the next subsection level appear at the top of alternating pages of the manual to remind you of where you are in the manual. The manual name and page numbers appear at the bottom of the pages.

### 1.1.1 Text conventions

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Key names are shown in **bold** and reflect the case of the key being described. If a key has a dual function it may be referred to by its alternate function.

Displayed messages appear in ***bold italic*** type and reflect the case of the displayed message.

Annunciator names appear as *italic* text.

### 1.1.2 Special messages

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Examples of special messages you will see in this manual are defined below. The signal words have specific meanings to alert you to additional information or the relative level of hazard.



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**CAUTION!**

***This is a Caution symbol.***

***Cautions give information about procedures that, if not observed, could result in damage to equipment or corruption to and loss of data.***

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***NOTE: This is a Note symbol. Notes give additional and important information, hints and tips that help you to use your product.***

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## 1.2 Installation

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**NO USER SERVICEABLE PARTS. REFER TO QUALIFIED SERVICE PERSONNEL FOR SERVICE.**

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Equipment to be powered by a UL Listed I.T.E. power supply: rated 12 -36VDC and marked "LPS", or a UL Listed power supply rated 12-36VDC and marked "Class 2."

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The Socket-Outlet shall be installed near the equipment and shall be easily accessible.

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### 1.2.1 Safe handling of equipment with batteries

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**Please be aware this product contains a lead acid battery located on the back of the scale base which *MUST* be removed and disposed of safely prior to any disposal of the scale.**

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**CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.**

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**ATTENTION: Il y a danger d'explosion s'il y a remplacement incorrect de la batterie, remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.**

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### 1.2.2 Wet conditions

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Under wet conditions, the plug must be connected to the final branch circuit via an appropriate socket / receptacle designed for washdown use.

**Installations within the USA** should use a cover that meets NEMA 3R specifications as required by the National Electrical Code under section 410-57. This allows the unit to be plugged in with a rain tight cover fitted over the plug.

**Installations within Europe** must use a socket which provides a minimum of IP56 protection to the plug / cable assembly. Care must be taken to make sure that the degree of protection provided by the socket is suitable for the environment.

## 1.3 Routine maintenance

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**IMPORTANT:** This equipment must be routinely checked for proper operation and calibration.  
Application and usage will determine the frequency of calibration required for safe operation.

---

Always isolate the indicator from the power supply before starting any routine maintenance to avoid the possibility of electric shock.

## 1.4 Cleaning the machine

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Table 1.1 Cleaning DOs and DON'Ts



DO	DO NOT
Wipe down the outside of standard products with a clean cloth, moistened with water and a small amount of mild detergent	Attempt to clean the inside of the machine
	Use harsh abrasives, solvents, scouring cleaners or alkaline cleaning solutions
Spray the cloth when using a proprietary cleaning fluid	Spray any liquid directly on to the display windows

## 1.5 Training

---

Do not attempt to operate or complete any procedure on a machine unless you have received the appropriate training or read the instruction books.

To avoid the risk of RSI (Repetitive Strain Injury), place the machine on a surface which is ergonomically satisfactory to the user. Take frequent breaks during prolonged usage.

## 1.6 Sharp objects

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Do not use sharp objects such as screwdrivers or long fingernails to operate the keys.

## 1.7 FCC and EMC declarations of compliance

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### United States

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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### Canada

---

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

### European Countries

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**WARNING:** This is a Class A product. In a domestic environment, this product may cause radio interference in which the user may be required to take adequate measures.

## 2 Introduction

The ZK810 is a counting scale indicator which, when attached to a BSQ digital scale base, creates a 35,000 division counting system. The indicator, shown in [Figure 2.1](#), is easy to use. The indicator has an Ethernet port and two RS232 ports.

See the Specification literature for a full list of specifications.

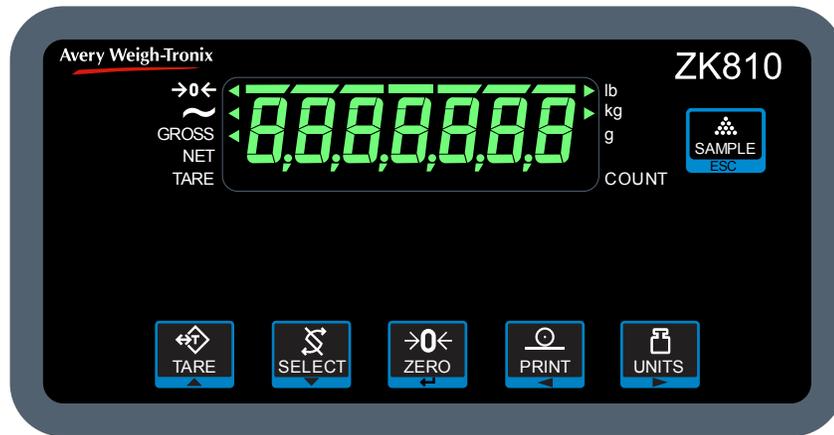


Figure 2.1 ZK810 front panel

### 2.1 Basic counting principles

There are several things which affect counting accuracy:

- environmental noise (vibration, wind, etc.)
- number of sample parts used
- the weight consistency of the sample parts
- the weight of one part
- accuracy requirement

Changes in each, or any one, of these variables can affect the accuracy for the better or for the worse. If there is wind or vibration accuracy will drop, especially if parts are small in weight. If parts are not a consistent weight, accuracy can be poorer but may be increased by using a large sample size.

Accuracy with this system can be extremely high, even with small parts, if the environment is controlled, parts have a consistent weight and a large enough sample size is used.

## 2.2 Front panel

The front panel, shown in [Figure 2.1](#), consists of the keys and display.



*Never press a key with anything but your finger. Damage to the overlay may result if sharp or rough objects are used.*

The normal function of the keys on the front panel are listed below. Some keys will have special functions in certain applications. Details are provided in the individual application sections.

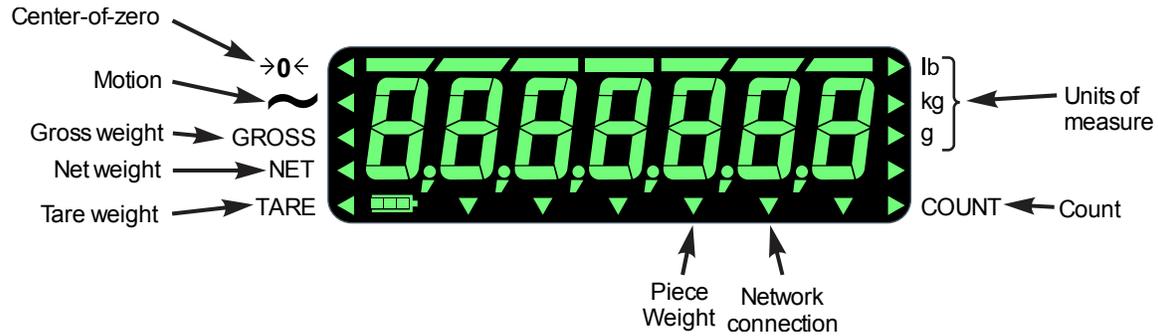
	<p>Press the <b>TARE</b> key to perform a tare function.</p> <p>With no weight on the scale, press the <b>TARE</b> key to clear a tare value.</p> <p>Acts as an up arrow key for menu navigation.</p> <p>Allows you to access minus and comma signs.</p> <p>Acts as an <b>ABORT</b> key during the sampling process.</p>
	<p>Press the <b>SELECT</b> key to toggle between the active display values.</p> <p>Acts as a down arrow key for menu navigation.</p> <p>Allows you to access minus and comma signs.</p>
	<p>Press the <b>ZERO</b> key to zero the display.</p> <p>Acts as an ENTER key to accept a displayed value or function.</p>
	<p>Press the <b>PRINT</b> to send information to a peripheral device through a configured communications port.</p> <p>Acts as a left arrow key for menu navigation.</p>
	<p>Press the <b>UNITS</b> key to scroll through the available units of measure while in normal operating mode.</p> <p>Acts as a right arrow key for menu navigation.</p> <p>The <b>UNITS</b> key is disabled when displaying counts.</p>
	<p>Press the <b>SAMPLE</b> key to select application specific choices.</p> <p>Aborts a numeric entry and acts as an ESCAPE key in the menu navigation.</p> <p>Press and hold to view the password entry screen for accessing the menus.</p>



*To clear a tare weight, remove all weight from the scale and press the **TARE** key or press and hold the **TARE** key for three seconds.*

## 2.2.1 Annunciators

The annunciators on the display are shown and labeled in [Figure 2.2](#).



**Figure 2.2 Annunciators**

The triangular annunciators will light during operation to inform the user of the weighing mode, active unit of measure, etc.

## 2.3 Powering up the ZK810

The ZK810/BSQ comes with a base mounted AC power supply unit (PSU) connected to the back of the BSQ. This supplies the required input power of 12 to 36 VDC @ 250ma minimum and is connected to a properly grounded outlet (100 VAC - 240 VAC, 50 or 60 Hz). The indicator is always ON as long as power is received. See [Base mounted AC PSU on page 13](#).

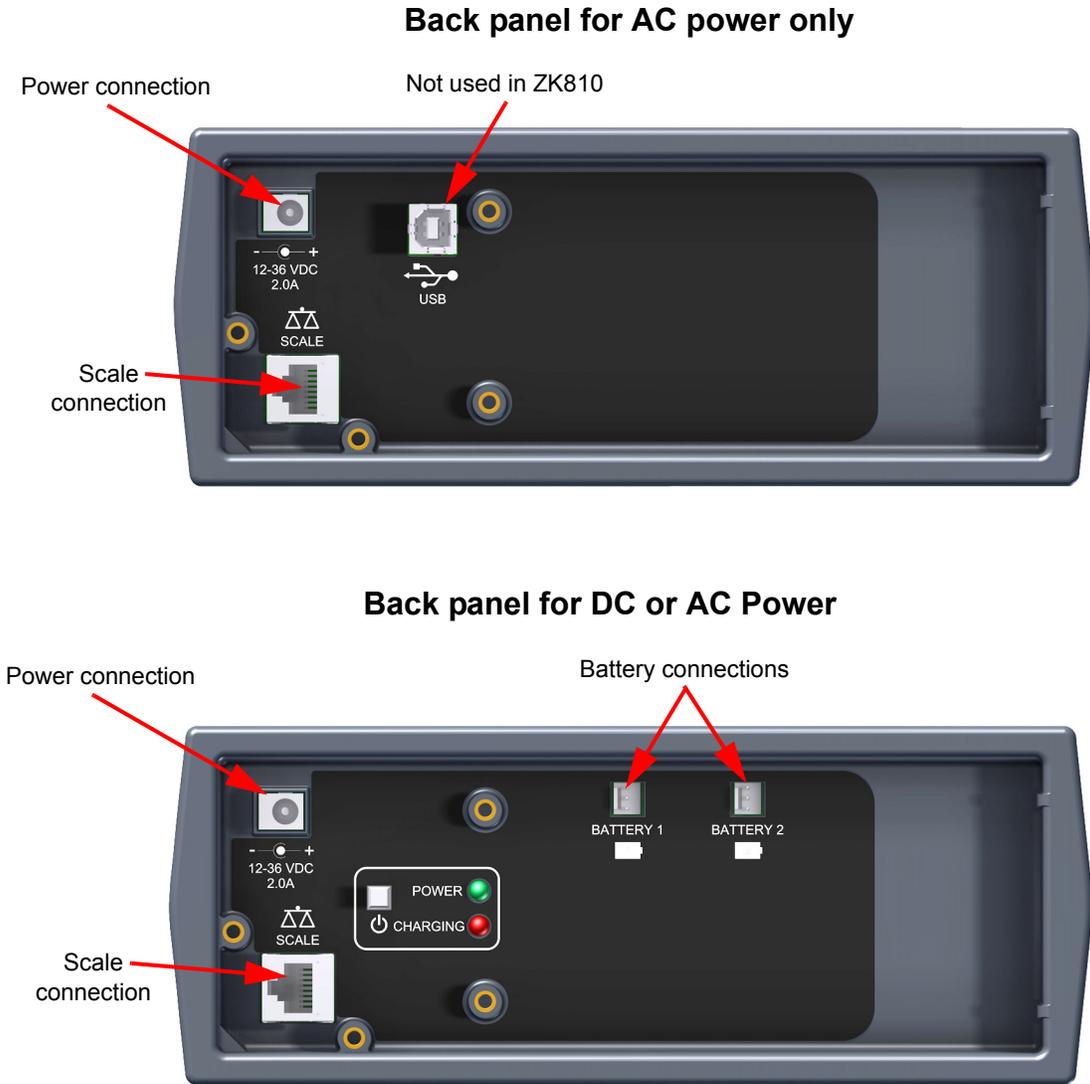
If using the optional rechargeable battery pack mounted on the rear of the base you can expect approximately 20 hours of operation between charges. Recharge time is four hours using the in-line PSU. The battery pack requires 24 to 36V to charge. See [Battery power on page 14](#) for more information. The battery timer setting can be used to turn the indicator display OFF automatically.

You can also power the indicator with a 12 to 36 VDC power supply (250ma minimum at 24VDC) via a 2.1mm center positive barrel jack plugged into the receiver on the back of the indicator.

The first time you power up the ZK810 you need to pick which application you will be using. See [First time power up on page 16](#) for instructions on how to do this.

## 2.4 Connections on the BSQ

The BSQ comes with two different back panels, depending on the power option you choose. One is for AC power only and the other is for use with the optional battery pack or AC power. These two panels and their connections are shown in [Figure 2.3](#).



**Figure 2.3 BSQ connections**

### Base mounted AC PSU

On the Base mount model the AC power supply unit (PSU) is attached by a bracket to the back of the scale base. The DC output barrel jack plugs into the 12-36 VDC input as shown in [Figure 2.4](#).



**Figure 2.4 AC power block**

Plug the power cord into a properly grounded outlet, then into the receptacle in the PSU. See [Figure 2.5](#).



**Figure 2.5 AC power connections**

## Battery power

The optional battery pack connects to the two battery connections as shown in [Figure 2.6](#). The battery provides approximately 20 hours of operation before charging is necessary.



Figure 2.6 Battery pack connections

When a 24-36 VDC power supply is plugged into the power connection on the back panel of the ZK810, the green POWER light will turn on indicating power has been applied to the BSQ base. The red CHARGING light will blink to indicate the battery is charging. When the battery is fully charged the red CHARGING light will go out and the power supply can be unplugged to work on battery power only.

The standby power button, pointed out in [Figure 2.6](#), can be used to turn the ZK810 indicator on or off.

## 2.5 Leveling the scale



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*For best accuracy we recommend you check that the scale is level prior to every use.*

---

Place the scale on a level, stable surface free from vibrations or strong air currents. Level the scale using adjustable feet and the bubble level located on the side of the base. Turn the appropriate foot or feet until the bubble is centered and then lock the feet in place by turning the locking collar snugly up against the scale body. See [Figure 2.7](#).

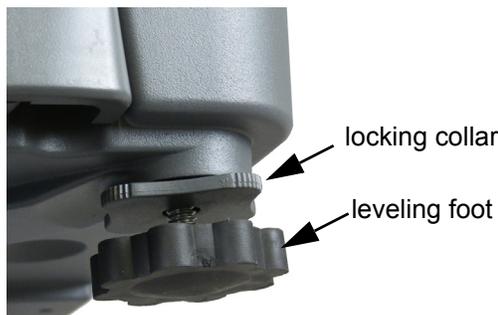


Figure 2.7 Foot and locking collar

## 2.6 Numeric entry procedure

The keys in [Figure 2.8](#) have alternate functions in numeric entry screens.

	These segments flash in numeric entry mode
<b>TARE / ▲</b>	– Press to increment the flashing number
<b>SELECT / ▼</b>	– Press to decrement the flashing number
<b>PRINT / ◀</b>	– Press to backspace cursor in a number
<b>UNITS / ▶</b>	– Press to advance cursor in a number
<b>ZERO / ↵</b>	– Press to accept a value
<b>SAMPLE / ESC</b>	– Press to escape an entry screen

**Figure 2.8 Key function during numeric entry**

In numeric entry screens, the center segments shown in [Figure 2.8](#) flash. Use the keys, as described in [Figure 2.8](#), to enter a value on the display. Following is an example:

### **Example: To key in the number 507:**

Repeatedly press the **TARE(▲)** or **SELECT(▼)** key until **5** appears on the display.

Press the **UNITS(→)** key once to move cursor one space to the right.

Repeatedly press the **TARE(▲)** or **SELECT(▼)** key until **0** appears on the display.

Press the **UNITS(→)** key once to move cursor one space to the right.

Repeatedly press the **TARE(▲)** or **SELECT(▼)** key until **7** appears on the display.

Press the **ZERO** key to enter or accept the value.

Press the **PRINT(◀)** key to move the entry function one digit to the left. This effectively deletes the current value in that position and allows you to enter a new value in that position.

## 2.7 Printing

There are four default ticket print formats that can be used. These are configured as part of the setup by a qualified service technician. See examples below.

```

GROSS WT:    4.410 lb
COUNT:     4009
PIECE WT:   0.00110 lb
  
```

Print format #1

```

09:11 am    03-25-2017
Gross:      2.136 lb
Net:        0.800 lb
Tare:       1.336 lb
  
```

Print format #3

```

4.01 lb G
  
```

Print format #9

```

35LG
  
```

Print format #10

## 3 Indicator applications

This indicator has two weighing applications that can be enabled through a password protected menu. Only one application can be enabled at a time. The applications available are:

- **Parts Counting** (explained on page 16)
- **General Weighing** (explained on page 19)



---

*Key functions in different applications may vary. These will be noted under each application.*

---

### 3.1 First time power up

---

Upon first time power up you are given the choice of which application you want to use. **APP** appears on the screen. Press **SELECT** and use the **UNITS** or **PRINT** key to scroll through the choices. When the application you want to use is displayed, press **ZERO**. That application will become active. Press the **TARE** key to start the normal mode for the chosen application.

A password protected menu is used to change the active application.

#### To display active application name

You can display the active application name by doing one of the following:

- Press and hold **SAMPLE/ESC** until the numeric entry screen appears. Press **SAMPLE/ESC** again to display the current application name.
- Or
- Cycle power and the current application name is displayed briefly on power up.

### 3.2 Counting application

---

This section applies if the Count application is active.

#### 3.2.1 Sampling methods

Dribble sampling is the default sampling method. Bulk sampling is also available. This is set in a password protected Supervisor menu. Each type is defined below.

##### ***Dribble sampling definition:***

When sample parts are being added to the scale they can be counted out slowly or, in other words, dribbled onto the scale. A key press (**SAMPLE** key) is needed to finish the sampling process. The piece weight is calculated and the count is displayed.

**Bulk sampling definition:**

When sample parts are being added to the scale they must all be placed on the scale at once, in other words, in bulk. If the sample is large enough to meet the minimum weight requirements the piece weight is calculated and the count is displayed with no extra button presses.

**3.2.2 SELECT key default function**

In the Count application you can view the gross, net and count by repeatedly pressing **SELECT**.

**3.2.3 Special key functions**

The following keys have an extra function in this application:

**SAMPLE** Press **SAMPLE** to perform the sample operation as described below in the Sampling section.

**PRINT** Press the **PRINT** key to perform the print function.

**3.2.4 Sample size**

By default the sample size choices are 5, 10, 25, 50 or 100. When asked to add samples, one of these will be the requested count. The smallest allowed sample size is defined in the password protected Supervisor menu.

**3.2.5 Counting in dribble mode**


---

At any time during the sampling process you can abort by pressing the **TARE/up arrow** key.

---

With the count application in dribble mode active, follow these steps to count:

1. Press **ZERO** to zero the scale, if necessary.
2. Use a tare method to tare a container, if necessary. See [Net weighing on page 19](#).
3. Press the **SAMPLE** key...

**SAMPLInG** is briefly displayed. This means the indicator is zeroing itself. A message, **Add XX**, is then displayed. **XX** is the current sample size.

- 4a. Place **XX** number of items on the scale.

**OR**

- 4b. Press the **SELECT** key repeatedly to scroll through other sample size choices (5, 10, 25, 50 or 100). When your choice is displayed, place that number of items on the scale and press **SAMPLE** ...

**buSY** is briefly displayed, followed by one of three possible outcomes:

- a. The display will show the correct number of parts on the scale and the *COUNT* annunciator is lit.
- b. If the sample weight was not enough, **PcE WtL** will be displayed briefly and then return to weight mode.
- c. If the weight was unstable, **tMout** is briefly displayed and the display returns to gross weighing mode. The **TARE** key can be used to abort the sampling process, if necessary.



---

*If you do not place a sample on the scale within five minutes of selecting the sample size, the display will show **tmout** (timeout) and return to the gross weight screen.*

---

5. Place the parts on the scale to be counted.

### **3.2.6 Counting in bulk mode**

With the count application in bulk mode active, follow these steps to count:

1. Press **ZERO** to zero the scale, if necessary.
2. Use a tare method to tare a container, if necessary. See [Net weighing on page 19](#).
3. Press the **SAMPLE** key...  
**SAMPLinG** is briefly displayed. This means the indicator is zeroing itself. A message, **Add XX**, is then displayed. **XX** is the current sample size.

- 4a. Place **XX** number of items on the scale.

**OR**

- 4b. Press the **SELECT** key repeatedly to scroll through other sample size choices (5, 10, 25, 50 or 100). When your choice is displayed, place all the sample on the scale at one time ...

**buSY** is briefly displayed, followed by one of two possible outcomes:

- a. If the weight is stable, the display will show the correct number of parts on the scale and the *COUNT* annunciator is lit.
- b. If the sample weight was not enough, **PcE WtL** will be displayed briefly and then return to weight mode.
- c. If the weight was unstable, **tMout** is briefly displayed and the display returns to gross weighing mode. The **TARE** key can be used to abort the sampling process, if necessary.

## 3.3 General weighing application

---

This section applies if the General Weighing application is active. Features described here also apply to the other applications except where noted in those application instructions.

In General weighing you can do gross, tare and net weighing.

### 3.3.1 SELECT key default function

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In the General Weighing application you can view the gross, net and tare by repeatedly pressing **SELECT**.

### 3.3.2 Gross weighing

---




---

To change unit of measure, press **UNITS**.

---

To perform gross weighing, power up the unit and follow these steps:

1. Empty the scale and press **ZERO** to zero the display ...  
     **0** is displayed and the *center-of-zero* annunciator (**→0←**) lights.
2. Place item to be weighed on the scale ...  
     Weight is displayed.
3. Repeat steps 1 and 2.

### 3.3.3 Net weighing

---

**Pushbutton tare** When enabled press **TARE** to tare the weight on the scale.

There is an auto tare clear feature. If this is enabled, after a weighment, when the weight falls into the gross zero band, tare is cleared.




---

*Definition: Gross zero band - this is a configured value that defines a window around gross zero. This is used in several ways in different applications.*

---

#### Using Pushbutton Tare

---

To perform a net weighment using pushbutton tare, power up the unit and follow these steps:

1. With no weight on the scale, if the display does not read **0** press **ZERO** ...  
     **0** is displayed and the *center-of-zero* annunciator lights.

2. Place item to be tared on the scale ...  
Weight is displayed.
3. Press **TARE** ...  
**0** is displayed and the *NET* annunciator lights.
4. Place material to be weighed onto the scale ...  
Net weight of material is displayed.
5. Repeatedly press **SELECT** to view the configured display values.
6. If repeated weighments use the same tared item, you do not need to establish a new tare value as described in step [2](#) and [3](#).

### **To Clear a Tare**

---

Remove all weight from the scale and press the **TARE** key. The display shows *tArEcLr* briefly, the tare is cleared and the display will change to gross mode.

### **3.3.4 Printing**

To print the current weight information, press **PRINT**. The configured print format will be output through the configured port to the connected peripheral device.

## 4 Menu

Password protected menus are available to configure the indicator and/or view information.

### 4.1 Accessing the menus

---

Follow these steps to access the menus in the ZK810.

1. With the indicator powered up and in normal operating mode, press and hold **SAMPLE/ESC** ...

**Pass** is displayed, prompting you to enter the password.

2. Key in the password for the menu you want and press the **ZERO** key ...

The first item in the top level of the menu you accessed is displayed.

3. Use the navigation keys, shown below, to navigate through the menu structure. The symbols in the chart appear on the bottom of the keys.

Press **SELECT/ ▼** to move down in a menu  
 Press **TARE/ ▲** to move up in a menu, except at the bottom item in a menu, then use **ZERO/ ←** or **SAMPLE/ESC**  
 Press **PRINT/ ◀** to move left in a menu  
 Press **UNITS/ ▶** to move right in a menu  
 Press **ZERO/ ↵** to accept a value or choice and move up in the menu.  
 Press **SAMPLE/ESC** to escape and move up in the menu

### 4.2 Menu annunciators

---

The menu structure is made up of menu items, parameters, value entry screens and lists from which you choose one item. To help you know where you are in the menu, the bargraph at the top of the display is on while the indicator is in the menus and will change appearance according to the following rules:

<b>All segments flashing</b>	This means you are in the menu structure but not in any of the following screens.
<b>Center flashing / others solid</b>	This means you are in a parameter prompt screen.
<b>Center flashing / others off</b>	This means you are in a numeric entry screen. Enter a number and press <b>ZERO</b> to accept.
<b>Right flashing / others off</b>	This means you are in a list. Scroll through the choices with the <b>PRINT</b> and <b>UNITS</b> keys and press <b>ZERO</b> to accept.

### 4.3 Exiting the menus

---

1. If you are at the bottom item in a menu use **ZERO** to accept a choice or value and move up a level, or use **SAMPLE/ESC** to escape and move up one level without accepting the choice or value. From that point, press **TARE** repeatedly until ...

**SAVE no** is displayed. This means “Do not save changes.”

2. Press **UNITS** to scroll through the choices: **SAVE no**, **SAVEYES** and **CAnCEL**. Press **ZERO** to accept the displayed choice.

If you choose **SAVE no** or **SAVEYES** the indicator exits the menu and returns to normal weighing mode.

**OR**

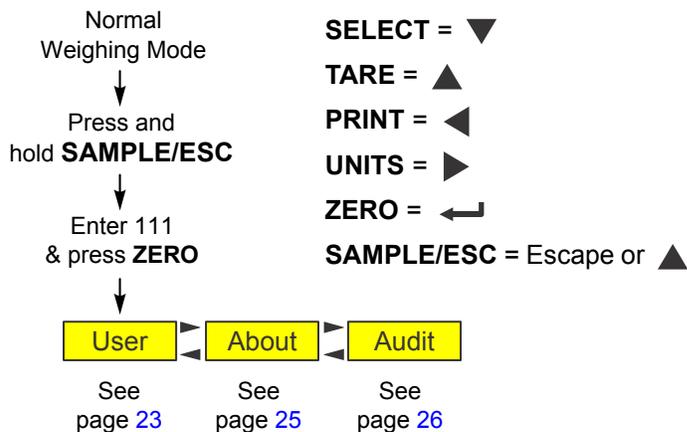
If you choose **CAnCEL**, the indicator remains in the menu.

### 4.4 USER level menus

---

The USER level menus are available to the user. The other menu levels are for supervisors and technicians only.

The USER level (password 111) contains the User, About, and Audit menus arranged as shown in [Figure 4.1](#).



**Figure 4.1 USER level (password 111) menus**

## 4.5 User menu

The User menu is shown in Figure 4.2.

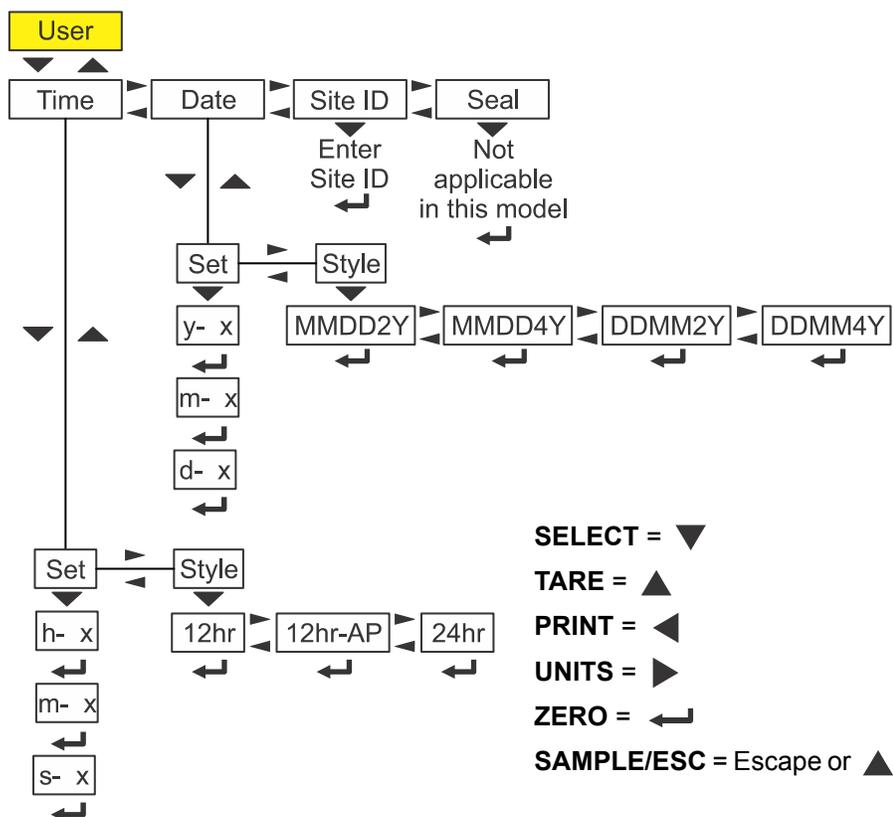


Figure 4.2 User menu

Use the [Numeric entry procedure on page 15](#) when you need to enter values.

### 4.5.1 Time

Access the User menu (see [Accessing the menus on page 21](#)). Use the navigation keys to move to the item you wish to configure. Each item is explained below.

**tiME** Use this to set the time and clock style. Two items appear below **tiME**:

**Set** Use this to set the hour, minute and second.

**h- x** This is the entry screen for the hour.

**m- x** This is the entry screen for the minute.

**s x** This is the entry screen for the second.

**StYLE** Use this to set the style of clock for printouts. Choices are **12hr**, **12hr-AP** (AM/PM) and **24hr** (military time).

**dAtE** Use this to set the date and style of its appearance. Two items appear below **dAtE**:

**Set** Use this to set the hour, minute and second.

**y-** This is the entry screen for the year.

**m-** This is the entry screen for the month.

**d-** This is the entry screen for the day.

**StYLE** Use this to set the style of clock for printouts. Choices are **MMDD2Y**, **MMDD4Y**, **DDMM2Y** and **DDMM4Y**.

**SitE id** Use this to key in a site ID number. See chapter 6 for instructions on how to enter the string.



---

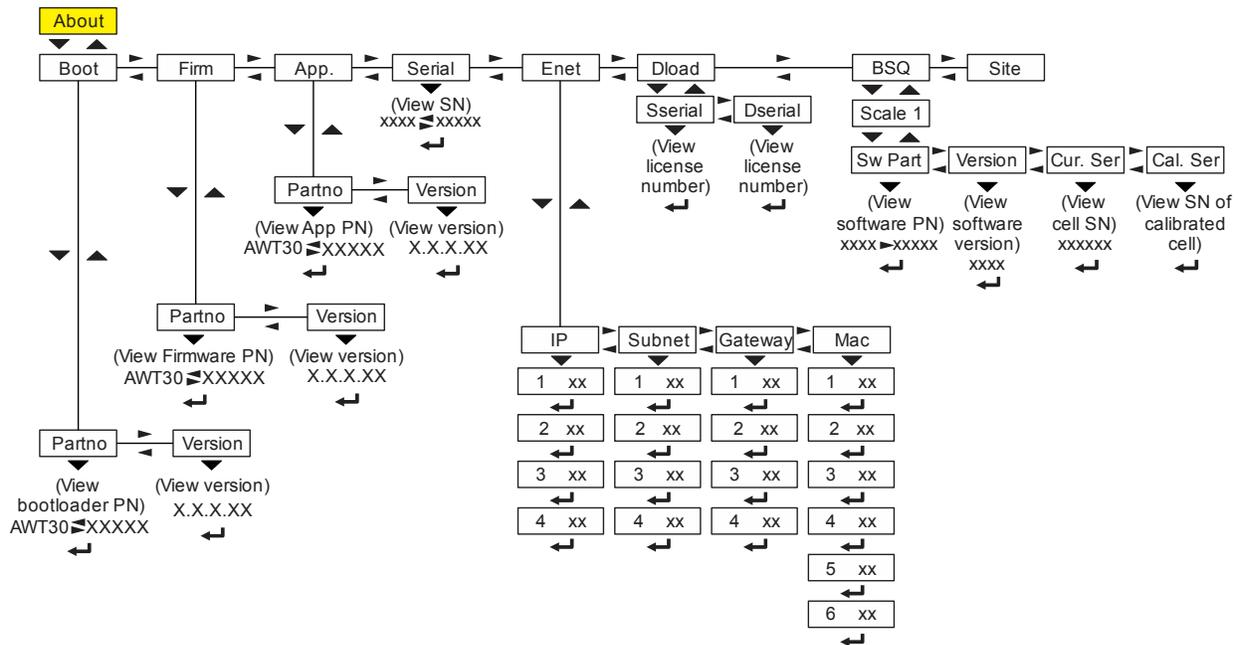
*The Site ID can be used in transmitted or printing information. ASCII characters 32-126 can be used.*

---

To exit the menu, see [Exiting the menus on page 22](#).

## 4.6 About menu

The About menu is shown in [Figure 4.3](#).



**Figure 4.3 About menu**

Use this menu to display information about the various items shown in [Figure 4.3](#). Each is explained below.

**boot** Use this to view the bootloader part number (PN) and version number.

When you view the bootloader PN only the 1st half is shown until you press **UNITS** to view the 2nd half.

**Firm** Use this to view the firmware part number and version. You need to press **UNITS** to view the 2nd half of the part number.

**APP** Use this to view the application part number and version. You need to press **UNITS** to view the 2nd half of the part number.

**Serial** Use this to view the serial number of the indicator. The first four digits are displayed. Press **UNITS** to view the last five digits.

**EnEt** Use this item to view the values for the IP, Subnet, Gateway and MAC addresses. Press the **ENTER** key successively to see all parts of the addresses.



*If the indicator is connected to an ethernet network, the values displayed will be the current assigned addresses.*

**dLoAd** This stands for download. Under **SSErIAL** you can view the serial number of the software application that created the configuration file. Under **dSSErIAL** you can view the serial number of the software application that downloaded the configuration file. This is used for security and licensing purposes.




---

*Downloading is currently not supported in the ZK810. The **dLoAd** fields will display **NONE** when accessed.*

---

**bSq** Use this to view the software part number, software version, serial number of the currently connected load cell and the serial number of the load cell the indicator was calibrated to. These last two items must match or you will see a BSQ error displayed.

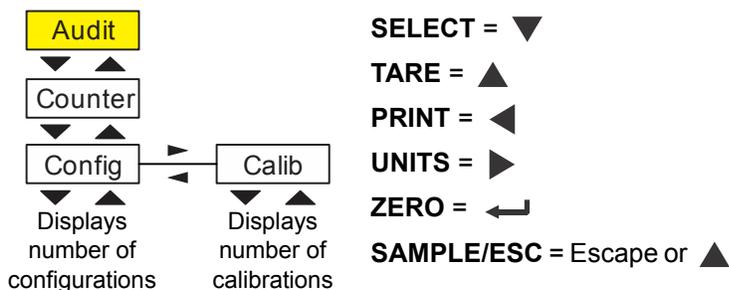
**SitE** View the geography for which the scale is configured. You will see one of the following: USA, GB, CAN, EU, China or India.

This completes the About menu. To exit the menu, see [Exiting the menus on page 22](#).

## 4.7 Audit menu

---

The Audit menu is shown in [Figure 4.4](#).



**Figure 4.4 Audit menu**

Use this menu to display audit counters for configuration and calibration. Each is explained below. Use the [Numeric entry procedure on page 15](#) when you need to enter values.

**countEr** Use the Audit menu to view the two counters that tell you how many times the indicator has been configured and calibrated.

This completes the Audit menu. To exit the menu, see [Exiting the menus on page 22](#).

## 5 Error messages

The following error messages may be displayed during use of the indicator:

Message / Fix	Display
Overload / Remove weight causing the error	
Underload / Check for obstruction under the load platter	
Can't / Request failed due to motion or other invalid condition	
Bounds / Entry not in valid range	
Invalid / Password entry failed	
Z-error / Power up zero error	
Error 252/ Scale not communicating - check interface cable from scale to indicator, contact scale service provider if error continues	
BSQ Cal Error / ZK810 and BSQ have not been calibrated together.	
Z-Lock / Indicator did not reach a stable zero weight within time window set for automated weighing process.	  

## 6 String index/character data entry

In the User menu there is an entry, Site ID, that requires you to enter text in a seven digit string. Below are guidelines to create or edit text in this string. This is a sample of a string entry display.

When these segments are flashing, you are in the string index select mode. In this mode you select the index character you want to edit or add/delete a character.



String Index number

Character (ASCII characters are entered as decimal values)

Left-flashing bar graph segments indicate you are in the String Index select mode. Use the Table 1 key legend to:

- move to the index number you want to edit
- add a new index number
- delete an existing index number.

Table 1: Key Action When In The String Index Select Mode						
Action	TARE	SELECT	ZERO	PRINT	UNITS	SAMPLE
<b>Momentary Key Press</b>	Does nothing	Selects the index character for editing using the key actions in Table 2	EXIT	Moves left one position in the index	Moves right one position in the index	ESC/Abort
<b>Long Key Press</b>	Deletes current character	Append new character after this point Default character added is 32 (space)	Does nothing	Page Up (Decrements index by 10)	Page Down (Increments index by 10)	Does nothing

After you select the index number, use the Table 2 key actions to edit the character for that index number.

Table 2: Key Action When In The Character Edit Mode						
Action	TARE	SELECT	ZERO	PRINT	UNITS	SAMPLE
<b>Single Key Press</b>	Increments the flashing digit by 1	Decrements the flashing digit by 1	Enter	Delete flashing digit	Add Digit	ESC/Abort
<b>Long Key Press</b>	Move flashing digit left by 1	Move flashing digit right by 1	Does nothing	Delete flashing digit	Does nothing	Does nothing

## 7 Supervisor menu

This menu allows a supervisor to change those functions of an application that are configurable. Access the supervisor menu using the password 1793. Refer to [Accessing the menus on page 21](#) for instructions.



Wherever there is an option to print information in the any of the supervisor's menus, the information will print out of Port 1 or Port 2, whichever is configured.



The menus are always explained in a sequential manner to cover all information in a logical fashion. You will probably never access all the menu items in this manner. You can navigate to the area of the menu that needs to be changed by using the navigation key chart shown with the menus.

The Supervisor menu changes based on the active application. Go to the appropriate section.

- [General Weighing application supervisor menu on page 29](#)
- [Counting application supervisor menu on page 31](#)

### 7.1 General Weighing application supervisor menu

Figure 7.1 shows the Supervisor menu when you are in the General Weighing application.

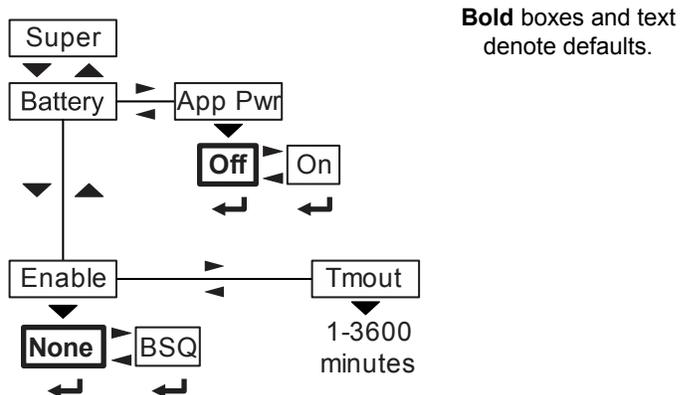


Figure 7.1 Supervisor menu for the General Weighing application

Use the navigation keys to reach the item you want to set. Each item is explained on the following pages.

### **7.1.1 Battery menu item**

---



---

*Only enable the battery and set the **tMout** value if using the internal ZK810 battery option. The shut off timer will not work with other external battery sources.*

---

**tMout** This stands for timeout. Use this to set the length of time before inactivity of the scale and keypad cause battery power to be shutoff. Values between 1 and 3600 minutes are valid.

### **7.1.2 App Pwr menu item**

---

Enable this to force the user to pick the application desired at the next power up.

This completes the Supervisor menu for General Weighing. Repeatedly press **TARE** until the indicator returns to normal weighing mode.



---

*The changes are saved automatically and the indicator reboots.*

---

The current weight value is displayed.

## 7.2 Counting application supervisor menu

Figure 7.2 shows the Supervisor menu when you are in the Counting application:

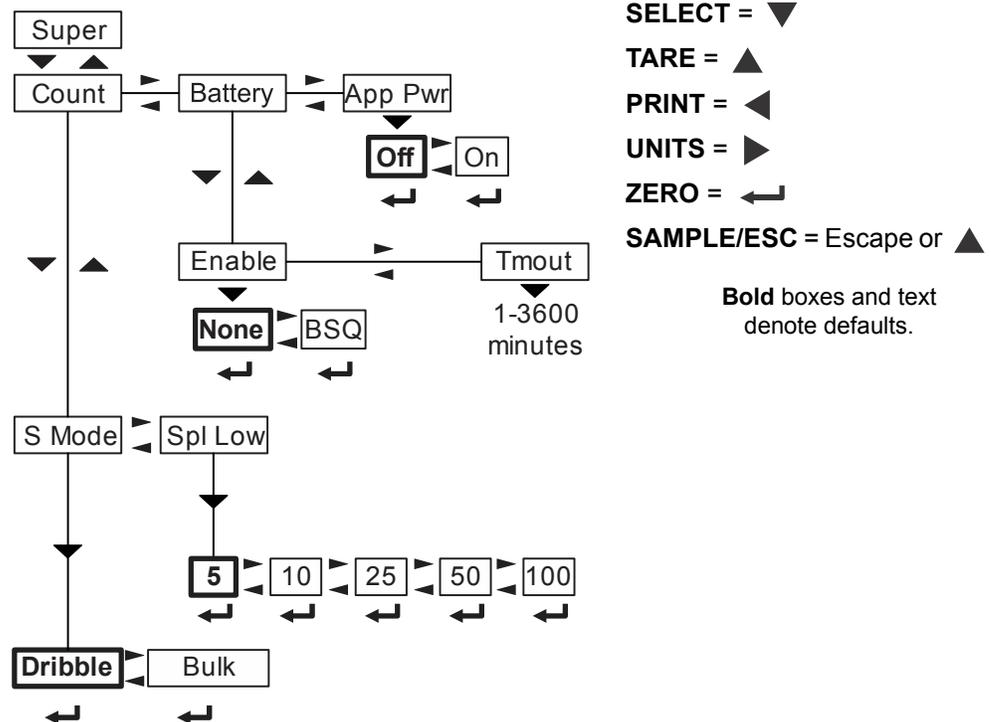


Figure 7.2 Supervisor menu for the Count application

Follow these steps to set the items in the Supervisor menu.

### 7.2.1 Count menu item

With the Count application active, access the Supervisor menu using password 1793. Refer to [Accessing the menus on page 21](#) for instructions. Use the navigation keys to display the item you want to set. Each are described on the following pages.

**S Mode** Choose the type of sampling you want to use; bulk or dribble.

Bulk sampling is an automated sampling method. You place all the items to be sampled on the scale at the same time and the scale will automatically calculate and display the count.

Dribble sampling requires one more step than bulk sampling. You can count the items to be sampled onto the scale and then press the **SAMPLE** key to begin the piece weight calculation. This can be handy if the items are more easily counted onto the scale one at a time versus all at once.

**SPL LoW** Stands for Sample Low. Use this to choose the minimum allowable sample size when you press the **SAMPLE** key. Choices: **5, 10, 25, 50, 100**. Example: If you pick 5, Add 5 is displayed as the minimum sample size when you begin the sampling process.

This completes the Supervisor menu for the Checkweighing application. Repeatedly press **TARE** until the indicator returns to normal weighing mode.

*Supervisor menu*



# Avery Weigh-Tronix



## **Avery Weigh-Tronix USA**

1000 Armstrong Dr.

Fairmont MN 56031 USA

Tel: 507-238-4461

Fax: 507-238-4195

Email: [usinfo@awtxglobal.com](mailto:usinfo@awtxglobal.com)

[www.averyweigh-tronix.com](http://www.averyweigh-tronix.com)

## **Avery Weigh-Tronix UK**

Foundry Lane,

Smethwick, West Midlands,

England B66 2LP

Tel: +44 (0) 8453 66 77 88

Fax: +44 (0)121 224 8183

Email: [info@awtxglobal.com](mailto:info@awtxglobal.com)

[www.averyweigh-tronix.com](http://www.averyweigh-tronix.com)