

## ZM505 Indicator



## User Instructions

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# Table of Contents

	<i>page</i>
<b>Table of Contents</b> .....	3
<b>Chapter 1 General information and warnings</b> .....	5
About this manual .....	5
Text conventions .....	5
Special messages .....	5
Installation .....	5
Safe handling of equipment with batteries .....	6
Wet conditions .....	6
Routine maintenance .....	6
Cleaning the machine .....	7
Training .....	7
Sharp objects .....	7
FCC and EMC declarations of compliance .....	8
<b>Chapter 2 Introduction</b> .....	9
Front panel .....	10
Display .....	11
Powering up a ZM505 series indicator .....	12
Using the alphanumeric keypad .....	12
Entering negative numbers or decimal point .....	12
<b>Chapter 3 Operator Instructions</b> .....	13
Power Up .....	13
Accumulation weighing application .....	13
Gross weighing .....	13
Net weighing .....	13
Using the Accumulation function .....	16
Performing Accumulation weighments .....	17
<b>Chapter 4 Menus</b> .....	18
Accessing the menus .....	18
Menu annunciators .....	18
Exiting the menus .....	19
USER level menus .....	19
User menu .....	20
Time .....	20
Date .....	21
Site ID .....	21
Seal .....	21
About menu .....	22
Boot (Bootloader) .....	23
Firmware .....	23
App .....	23
Serial .....	23
Option .....	24
Enet .....	24
Download .....	25
BSQ .....	25
Audit menu .....	26
Counter .....	26
Print .....	27

<b>Chapter 5 Error messages</b> .....	28
<b>Chapter 6 Supervisor menu</b> .....	29
Printed Preset Tare report example .....	30

# 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 and reflect the case of the annunciator.

### 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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## 1.2.1 Safe handling of equipment with batteries

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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.*

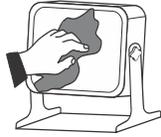
---

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

---

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 ZM505 indicator, shown in [Figure 2.1](#), is a powerful, programmable indicator with a default accumulator weighing application. The application database can store 200 accumulation channels. This manual will explain operation of the indicator and the weighing application.

This indicator is suitable for the office, dusty, wet or high pressure and heavy washdown environments. It comes in IP69K stainless steel desktop and IP66 panel mount housings. It has an IBN display for high contrast and a graphic array to display text and graphic messages appropriate to the function of the program.

The ZM505 indicator will support up to four scales with a maximum total of 24 - 350 ohm load cells. The standard indicator can connect to four scales, three of which can be digital. All of them can be analog. The indicator require 100 VAC - 240 VAC, 50 or 60 Hz or 12-36VDC. The standard indicator connectivity includes a USB Host, three serial ports and an Ethernet port.

With an multiple option cards it can support 4 analog scale inputs. Available options include:

- Analog Output kit
- Current Loop kit: Current loop and RS485/RS422
- USB Device kit: Provides USB interface to PC
- DeviceNet™
- Profibus®
- Wireless 802.11g
- Internal 120 VAC relay
- 2nd Scale Input 5VDC Excitation w/o STVS
- 2nd Scale Input 10 VDC Excitation w/STVS
- External I/O Interface (for existing GSE or 1310 I/O cards)
- AC input, 4 Inputs (120-240VAC)
- DC input, 4 inputs(4-30VDC)
- AC output, 4 relays (20-240VAC, 1 amp max)
- DC output, 4 relays (3-60VDC, 2 amp max)

The indicator also has three logic level inputs with configurable functions and three setpoint outputs. See the Specification literature for a full list of specifications.

## 2.1 Front panel

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



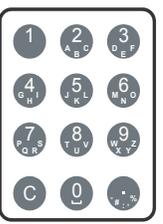
**Figure 2.1** Front panel of the ZM505 indicator



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

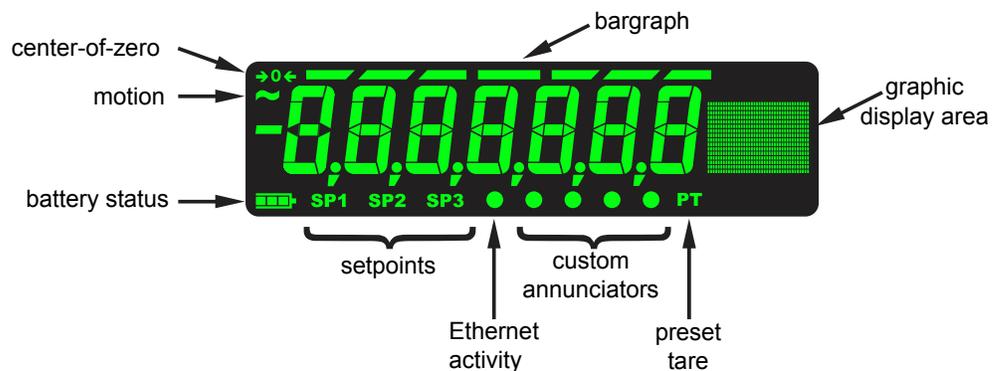
The normal function of the keys on the front panel of the ZM505 are listed below.

	<p>Press the <b>TARE</b> key for pushbutton, key entry or preset tare functions. Press and hold this key to clear an active tare. Acts as an up arrow key for menu navigation. Allows entry of numeric values.</p>
	<p>Press the <b>SELECT</b> key to toggle between the active display values. Press and hold to enter the setpoint editor. Acts as a down arrow key for menu navigation. Allows entry of numeric values.</p>
	<p>Press the <b>PRINT</b> key to send information to a peripheral device through a configured communications port. Acts as a left arrow key for menu navigation and removes last digit during numeric entry.</p>
	<p>Press the <b>UNITS</b> key to scroll through the available units of measure while in normal operating mode. Acts as a right arrow key for menu navigation and inserts new digit during numeric entry.</p>
	<p>Press the <b>ZERO</b> key to zero the display. Acts as an ENTER key to accept a displayed value or function.</p>
	<p>The <b>SAMPLE</b> key can be used to perform custom application functions.</p>

	The <b>START</b> key can be used to perform custom application functions.
	The <b>STOP</b> key can be used to perform custom application functions.
	The <b>ID</b> key is used to enter an ID number.
	The <b>SCALE</b> key can be used to perform custom application functions. It can also be used to select the active scale when more than one scale is enabled.
	The <b>SETUP</b> key can be used to perform custom application functions. It can also be used to view the password entry screen for menu access.
	The <b>TARGET</b> key can be used to perform custom application functions.
	The <b>F1</b> through <b>F5</b> key functions change per the active application. In the default Accumulation application: Use <b>F1</b> to enter an Accum channel, use <b>F3</b> to enter an ID number, use <b>F5</b> for setpoint entry.
	Use the numeric keypad to enter numbers in the appropriate screens. Press the <b>C</b> (CLEAR) key to clear the last entry.

## 2.1.1 Display

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



**Figure 2.2 Annunciators**

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

## 2.2 Powering up a ZM505 series indicator

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The indicator is always active as long as power is received. Power must be 90-264 VAC with a frequency of 50 or 60 Hz, or 12-36 VDC.

## 2.3 Using the alphanumeric keypad

---

Use the alphanumeric keypad to enter numbers and words when prompted by the indicator. The action is similar to using a cell phone to select the number or letter. A rapid succession of presses will scroll through the number on the key and then the letters, starting with upper case and then lower case. The decimal key scrolls through the negative sign, pound sign, colon, comma and percent sign. The **0** key toggles between 0 and a space.

## 2.4 Entering negative numbers or decimal point

---

To enter a minus sign for a negative number or a decimal point (or comma), press the **C** key (or **PRINT** key) to clear the current value from the display.

Then to enter a negative number, with a single **0** displayed press the **Decimal** key. The first character will then change to a (-) negative sign. Enter the rest of the digits normally.

To enter a decimal point (or comma), on a ZM505 use the decimal point key. To enter a value less than 1 requires the entry of the leading 0 before a decimal point is allowed.

## 3 Operator Instructions

The ZM505 indicator comes standard with a basic accumulation weighing application and 10 Preset Tares. Custom applications can be written in LUA programming language or by installing Macro programs..




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**SELECT key default function:** You can view the gross, net, tare, gross total, net total, tare total and transaction total display values or other configured scale parameters by repeatedly pressing **SELECT**.

---

### 3.1 Power Up

When the indicator is powered up, you will see the startup screen for the Accumulation application, shown below:



### 3.2 Accumulation weighing application

Gross and net weighing are covered first below followed by the instructions for the Accumulation app.

#### 3.2.1 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, if necessary, press **ZERO** to zero the display ...  
     **0** is displayed and the *center-of-zero* annunciator lights.
2. Place item to be weighed on the scale ...  
     Weight is displayed.
3. Repeat steps 1 and 2.

#### 3.2.2 Net weighing

Net weighing is available via three types of tare entry.

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

**Entered tare** When enabled key in a tare weight and press **TARE** to set.

**Preset tare** When enabled press **TARE** and then enter a stored Preset Tare number (1 - 10) and press **ZERO** to set.



---

*Pushbutton and Entered Tares can be enabled simultaneously.*

---

### **Auto Tare Clear**

---

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



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*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.*

---

The three types of tare are explained below.

### **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* weight is displayed.
4. Place material to be weighed into or on the tared item on the scale ...  
Net weight of material is displayed.
5. Repeatedly press **SELECT** to view the gross, tare, and net 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.



---

*Pressing **TARE** will perform the tare function but if you continue to press and hold **TARE** for 3 seconds the display will show **cLEARed** and the Tare weight is cleared.*

---



---

*If gross weight is not at 0, press the **ZERO** key; then press the **TARE** key to clear the tare value.*

---

## Using Entered Tare

---

To perform a net weightment using entered tare, the following steps describe a typical operation:

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. Key in the tare value of the container or box that will be used to hold the material that requires a net weight value, and press **TARE** ...  
Tare weight is displayed as a negative value and the *NET* weight is display and the PT annunciator lights.
3. Place the container or box and material to be weighed on the scale ...  
Net weight of material is displayed.
4. If repeated weighments use the same tared item, you do not need to establish a new tare value as described in step 2.
5. To remove the tare weight from the scale, enter **0**, then press **TARE** ...  
The tare is cleared and the scale is in gross weigh mode.




---

Press and hold **TARE** for 3 seconds and the display will show **cLEARed** and the Tare weight is cleared.

---

## Using Preset Tare

---

Preset tares are entered in a password protected menu. Refer to details described in the [Supervisor menu on page 29](#). There are 10 tare values stored in memory. To perform a net weightment using one of the preset tares, 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. Press **TARE** ...  
**EntEr** is displayed.
3. Key in the desired preset tare number and press **ZERO** ...  
Tare weight is displayed as a negative value and the net weight is displayed and the PT annunciator lights.
4. Place container or box and material to be weighed on the scale ...  
Net weight of material is displayed.

Step 4 can be done prior to step 2 if desired.




---

When the item is removed from the scale the Tare is cleared automatically if Auto Tare Clear is enabled. To remove the tare weight manually, select a preset tare that has a value of 0 for the tare or press and hold **TARE** for three seconds.

---




---

If the active unit of measure is lb-oz then tare weights must be entered in the oz equivalent. To enter 2 lb 4.5 oz you would need to enter 36.5 oz (2 lb = 32 oz plus the 4.5)

---

### 3.2.3 Using the Accumulation function

In the accumulator application the following keys have the functions described. Following that are in depth instructions for using them.

- CHAN key (F1)** Press this key to use the key pad and key in the desired accumulator channel number (7 characters max).
- ID key (F3)** Press this key and key in the desired ID number (7 digits max).
- SETPT key (F5)** Press this key to set the setpoint or output values.

**PRINT key** A brief key press, or triggering input #3, accumulates and transmits data out serial port #1 (See sample below).

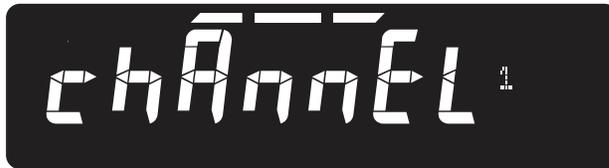
Chan. #	1
Trans #	2
Gross	52 lb
Tare	25 lb
Net	27 lb

Press and hold the **PRINT** key to print the Total Format shown below (if enabled in the supervisor menu):

Chan. #	1
Trans #	2
Gross Total	1077 lb
Tare Total	50 lb
Net Total	1027 lb

#### CHAN key (F1)

1. Press this key and the alphanumeric entry screen appears.



2. Key in the Channel number and press the **ENTER** key.

The main screen appears.



### **ID key (F3)**

---

1. Press the **ID** or the **F3** key to enter an ID number ...  
*id* appears briefly on the screen and then a flashing **0**.
2. Use the keypad to enter up to seven digits for the ID. When you have entered the ID, press the **ENTER** key and the main screen appears.

### **SETPT key (F5)**

---

1. Press the **SETPT (F5)**key ...  
*out1* is briefly displayed followed by the current weight value for setpoint 1.
2. Press **ENTER** to accept the displayed value or key in a new value and press **ENTER** to accept.  
*out2* is displayed followed by the current weight value for setpoint 2.
3. Press **ENTER** to accept the displayed value or key in a new value and press **ENTER** to accept.  
*out3* is displayed followed by the current weight value for setpoint 3.
4. Press **ENTER** to accept the displayed value or key in a new value and press **ENTER** to accept.

The indicator returns to the normal weighing mode

## **3.2.4 Performing Accumulation weighments**

---

The accumulator application can be used to record totals of individual weighments.

Follow these steps:

1. Press **ZERO** to zero the scale, if necessary ...  
**0** is displayed.
2. Place empty container on the scale and press **TARE** ...  
 Net weight is displayed.
3. Place item on the scale. Press **PRINT** to add this weight to the accumulator and to print the configured print format ...  
 The *PRINT* annunciator lights briefly and **Acc** is briefly displayed.
4. Remove weight from the scale. Weight must return to inside the gross zero band before another print and accumulation can be recorded.
5. Repeat steps 3 and 4 for each weight you want to accumulate.

If enabled, press and hold the **PRINT** key to transmit current active total channel data out serial port #1. This will also clear the current active channel data if the clear feature is enabled under the Supervisor's Menu.

## 4 Menus

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 ZM505 indicator.

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

**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 **F1**  
 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 **F1** 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

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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 **SETUP** 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**

To access the USER level, from normal weighing mode, press and hold the **F1** key. Enter password 111 and press the **ZERO** key.

## 4.5 User menu

The User menu is shown in Figure 4.2.

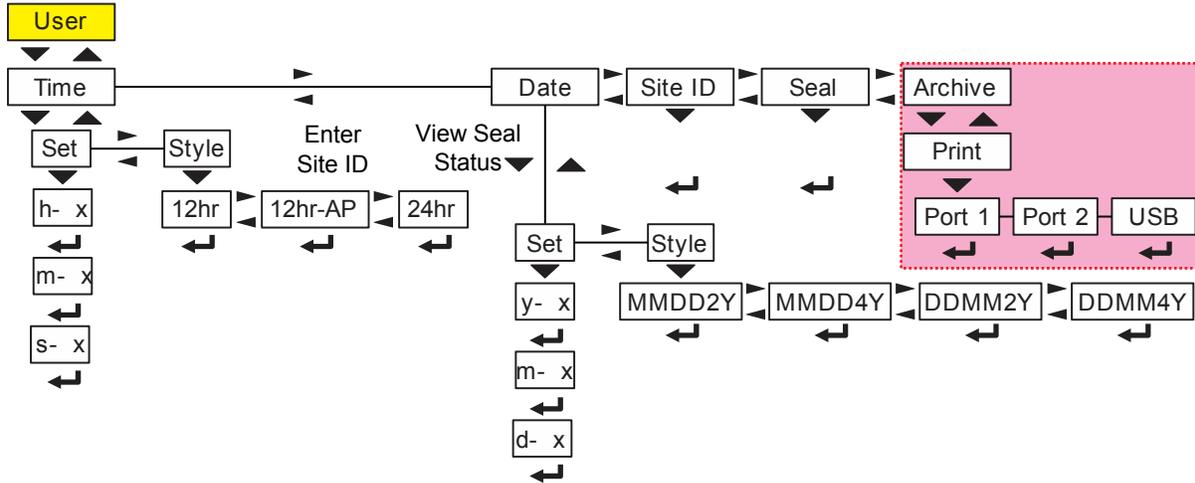
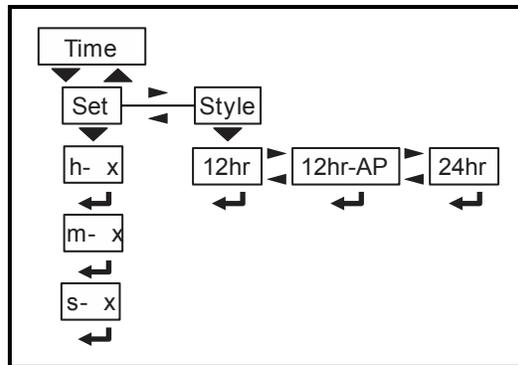


Figure 4.2 User menu

Use this menu to set the time and date, to enter a site ID, and view the physical seal status. Each is explained below:

### 4.5.1 Time



Use the **tiME** menu item to set the clock (**SEt**) and to choose the style of the time display (**StYLE**) 12 hr, 12 hr AM/PM or 24 hr.

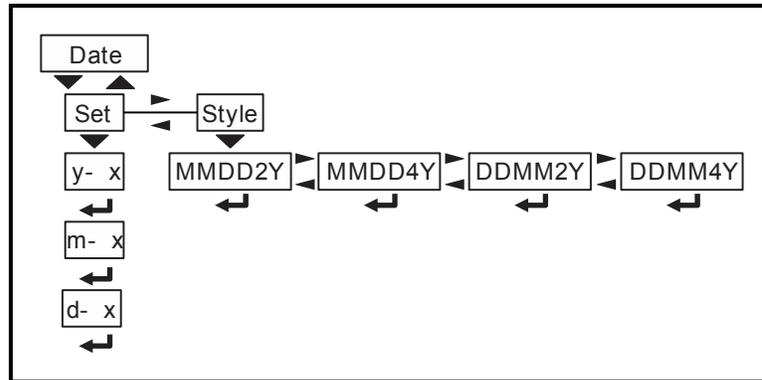


*The Time and Date can be used in print formats.*

**SEt** Use this to enter values for the time.  
**h- x**, = Hour  
**m- x** = Minute  
**s- x** = Seconds

**StYLE** Choose the style of the time display. Choices are:  
**12hr**, = 12 hour clock  
**12hr-AP** = 12 hour clock with AM/PM  
**24hr** = 24 hour military time

## 4.5.2 Date

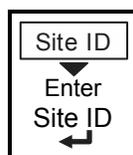


Use the **dAtE** item to set the year, month and day and the style of the displayed date.

**SEt** Enter values for the date.  
**y- x** = Year  
**m- x** = Month  
**d- x** = Day

**StYLE** Choose the style of the date display. Choices are:  
**MMdd2Y** = Month, Day, 2-digit Year  
**MMdd4Y** = Month, Day, 4-digit Year  
**ddMM2Y** = Day, Month, 2-digit Year  
**ddMM4Y** = Day, Month, 4-digit Year

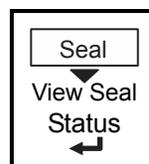
## 4.5.3 Site ID



**Site** Use this to enter a Site ID. Enter up to 6 characters for the Site ID via the alphanumeric entry. See page 14.

The Site ID can be used in a print format. Valid entries are decimal 32 through 126 (ASCII space to the ~ character)

## 4.5.4 Seal



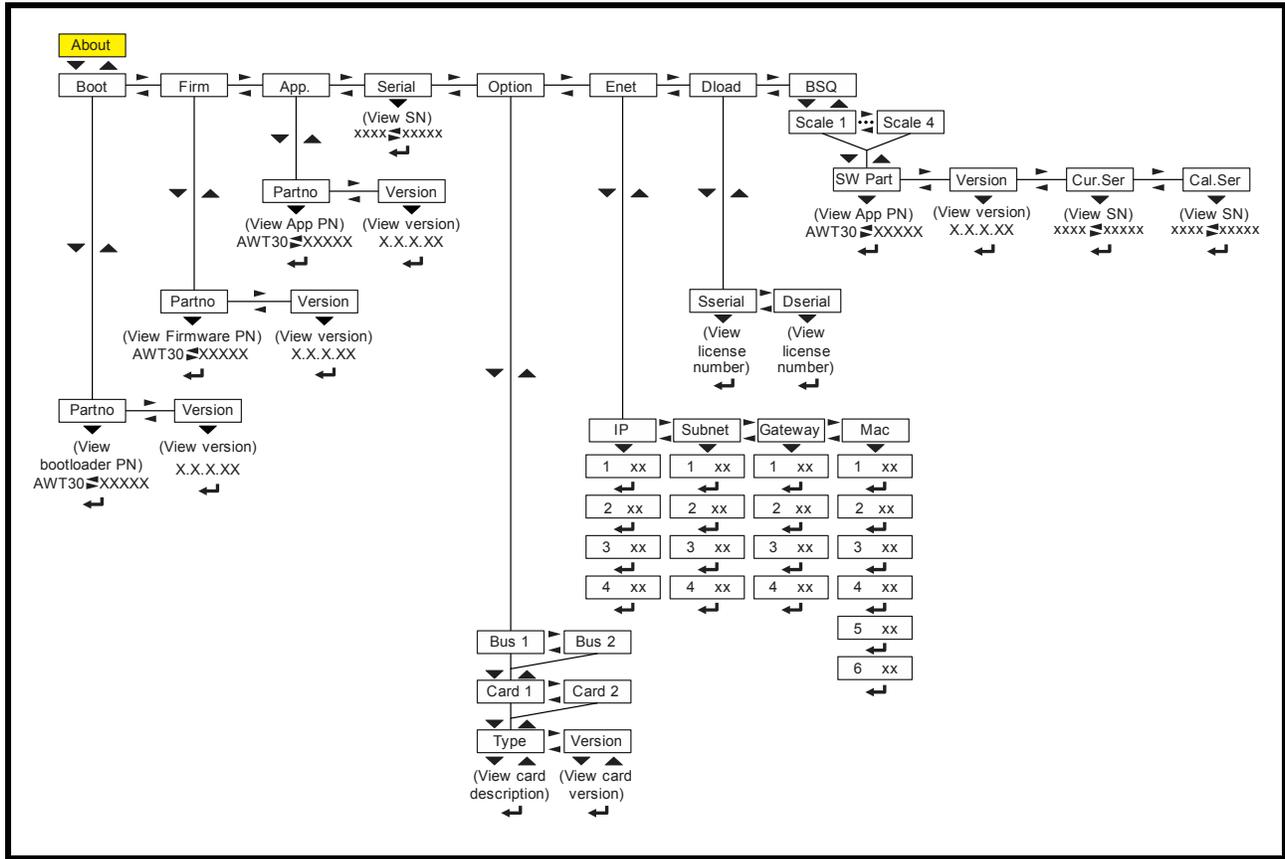
**SEAL** Use this to view the seal status of the indicator.

This is the status of the physical seal jumper inside the indicator. If the unit is sealed, no changes can be made to the configuration of the indicator.

To exit the menu, see *Exiting the menus* on page 19.

## 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:



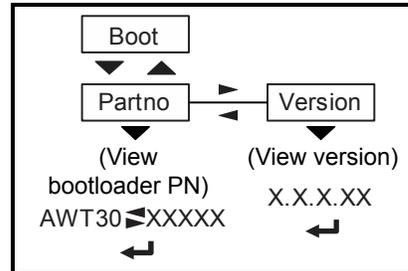
**Definitions:**

**Bootloader** Software that makes the electronics run.

**Firmware** Embedded system software that creates core functions of the product.

**App** Specific software that controls the behaviour for a given installation.

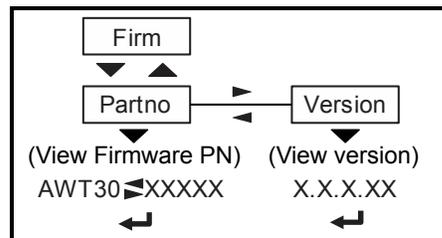
### 4.6.1 Boot (Bootloader)



**Partno** Use this to view the bootloader part number. The part number is displayed in two parts. Press **RIGHT arrow** key or **LEFT arrow** key to toggle the display between the first and second parts of the part number.

**VERsion** Use this to view the version of the bootloader.

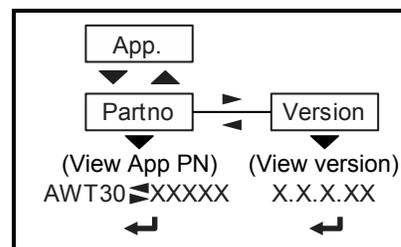
### 4.6.2 Firmware



**Partno** Use this to view the firmware part number. The part number is displayed in two parts. Press **RIGHT arrow** key or **LEFT arrow** key to toggle the display between the first and second parts of the part number.

**VERsion** Use this to view the version of the firmware.

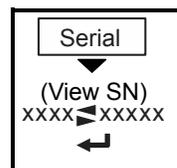
### 4.6.3 App



**Partno** Use this to view the App part number. The part number is displayed in two parts. Press **RIGHT arrow** key or **LEFT arrow** key to toggle the display between the first and second parts of the part number.

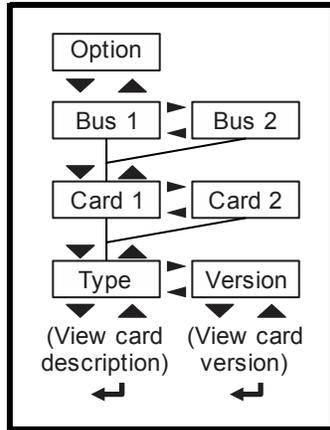
**VERsion** Use this to view the version of the App.

### 4.6.4 Serial



**SERIAL** Use this to view the Serial Number of the indicator. The number is displayed in two parts. Press **RIGHT arrow** key or **LEFT arrow** key to toggle the display between the first and second parts of the serial number.

### 4.6.5 Option



**oPtion**

Use this to view the description and version of an installed option card.

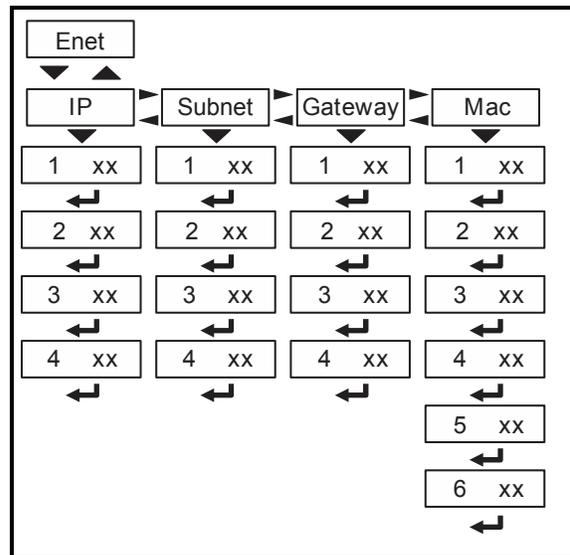
**Bus 1 or 2**

There are 2 Busses in the ZM505.

**Card 1 or 2**

There can be 2 Cards on each bus in the ZM505.

### 4.6.6 Enet



**EnEt**

This stands for Ethernet. Use this to view the network addresses.



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

**iP**

Use this to view the IP address.

**SubnEt**

Use this to view the Subnet address.

**gAtEWAY**

Use this to view the Gateway address.

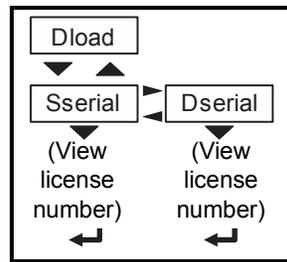
**MAc**

Use this to view the Mac address.



The IP, Subnet and Gateway addresses are a series of four double digit values. The MAC address is a series of six double digit values: 1 XX, 2 XX, 3 XX, etc.

## 4.6.7 Download



**dLoAd** This stands for download. Use this to view these items:

**SSEriAL** View the license number that created the configuration file.

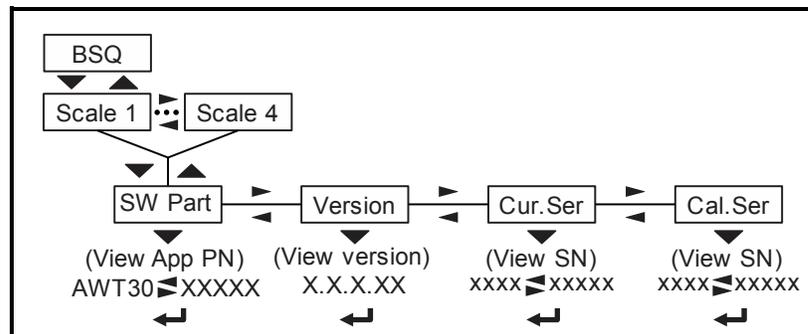
**dSSEriAL** View the license number that downloaded the configuration file.

This is used for security and licensing purposes.



To upload a configuration file, the license number of the Configurator (Ztools) software must match one of the license numbers in the indicator Contact AWTX Technical Support for assistance.

## 4.6.8 BSQ



BSQ stands for Bench Scale - Quartzell. You can view the following items for up to four connected BSQ scales.

**SW Part** View the firmware part number of the cell that is connected.

**VERsion** View the firmware version of the cell that is connected.

**cur.SER** View the serial number of the cell that is connected.

**cAL.SER** View the serial number of the cell that **WAS** connected at the time of calibration.

To exit the menu, see *Exiting the menus on page 19*.

## 4.7 Audit menu

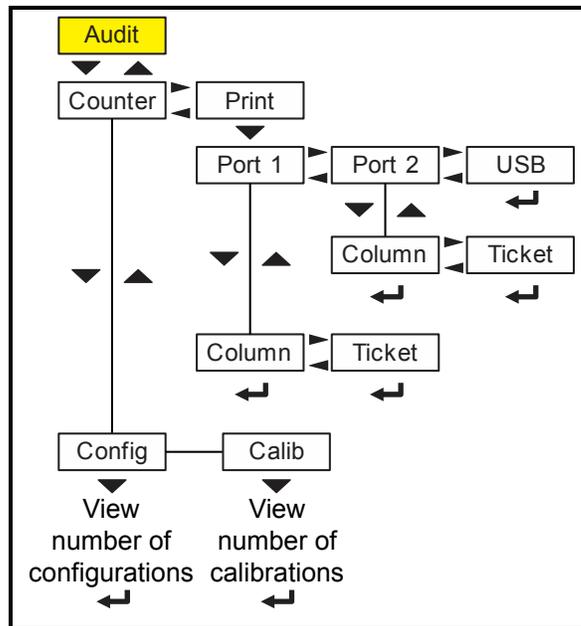
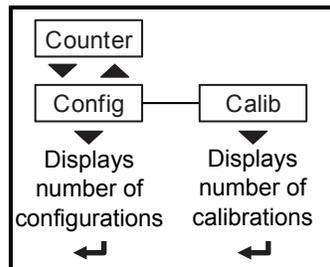


Figure 4.4 Audit menu

Use this menu to display audit counters for configuration and calibration and to print the information. Each is explained below:

### 4.7.1 Counter



**countEr**

Use this to view these items:

**conFig**

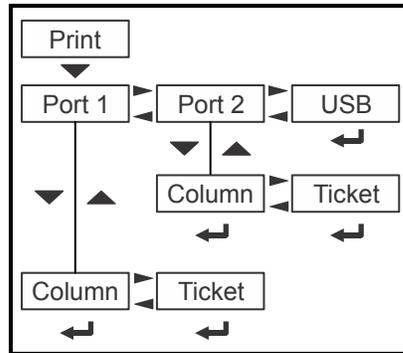
View how many times the indicator has been configured.

**cALib**

View how many times the indicator has been calibrated.

## 4.7.2 Print

---



**Print** Use these to select which port to print the audit report through. Choices are:

**Port 1** Under **Port 1** choose to print to a column or ticket printer.

**Port 2** Under **Port 2** choose to print to a column or ticket printer.

**uSb** Printing to USB requires that a USB flash drive is connected to the indicator host USB. Printing to USB will create a folder on the flash drive and a comma separated file with the data.

To exit the menu, see *Exiting the menus on page 19*.

## 5 Error messages

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

Message	Display
Overload	
Can't fit on display	
Underload	
Can't	
Entry not in valid range	
Password entry failed	
Indicator did not reach a stable zero weight within time window set for automated weighing process.	  
BSQ Cal Error / Indicator and BSQ have not been calibrated together. #1 denotes the scale number.	
Communication error between indicator and BSQ.	

## 6 Supervisor menu

The Supervisor menu allows the setup and editing of the Preset Tare register and the accumulation application parameters. The tare portion of the menu appears only if Preset Tare is enabled. Refer to the Service manual.

To access the Supervisor menu enter the **Supervisor password, 1793**. The ZM505 has a Preset Tare register memory which can store 10 tares.

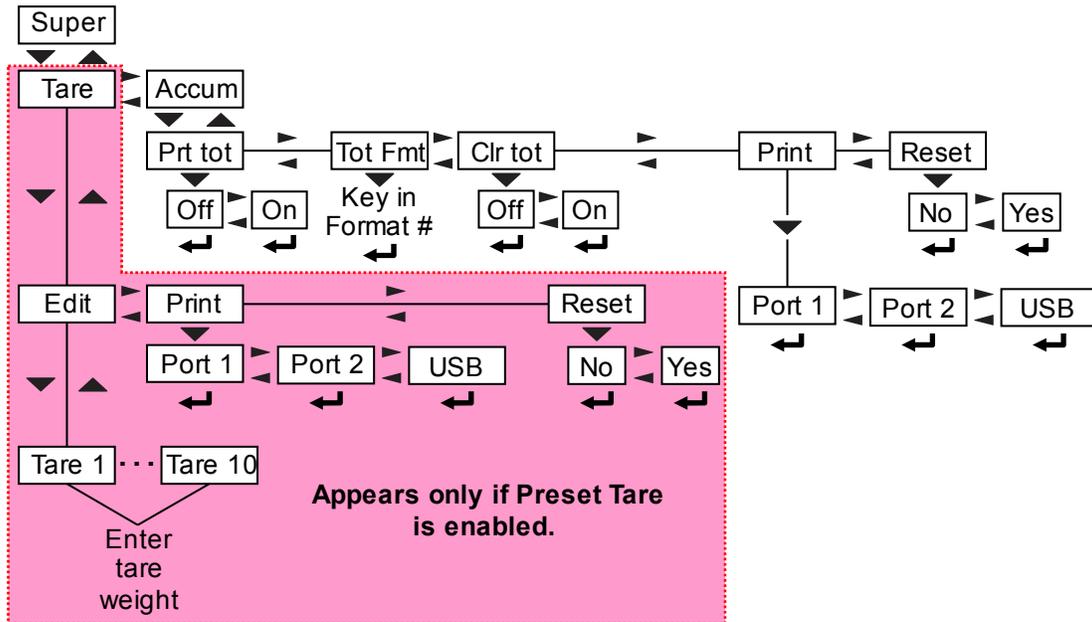


Figure 6.1 Supervisor menu

Press and hold the **SETUP** key until the password entry screen appears. Enter the Supervisor password, 1793 and press the **ZERO** key.

Highlight the item you wish to set and press the **Enter** key. The definitions of each item in the Supervisor menu are described below.

**Super** This is the top item in the Supervisor menu.

**tArE** This item appears only if Preset Tares are enabled. Use this to enter tare weights for up to 10 Preset Tares.

**Edit** Use this to set the tare weight for Tare 1 through Tare 10.

**Print** Use this to print the tare list to your desired port or to the USB port. See *Printed Preset Tare report example on page 30*.

**rESEt** Use this to clear all tares in memory.



*If the Preset Tare list has been reset and you print the Preset Tare report the 10 memory channels will be listed but all the weights will be 0.*

**AccuM** Use this item to set the accumulation parameters below.

**Prt Tot** This stands for Print Total. If enabled, during normal operation the user can press and hold **PRINT** for three seconds and the selected print format (see **Tot Fmt** section below) will be sent to any port that is configured. The display will flash **Prn-tot**.

**Tot Fmt** This stands for Total Format. This is the designated print format number used for the accumulated totals of the current active channel. (Format 8 is the default).

**Clr Tot** This stands for Clear Total. If enabled, during normal operation the totals for the active channel will be cleared after you press and hold of the **PRINT** key for three seconds. The clearing will occur after printing of the Totals (if enabled). The message **cLr-tot** will flash on the display.

**Print** Select the destination the 200-channel report will be transmitted to. Choices are: **Port 1**, **Port 2** or **USB**. See a sample report below.

Channel	ID	Gross Total	Net Total	Tare	Total Transactions	Units
1	111	1077.000000	1027.000000	50.000000	2	lb
2	0	0.000000	0.000000	0.000000	0	lb
3	0	0.000000	0.000000	0.000000	0	lb
4	0	0.000000	0.000000	0.000000	0	lb
5	0	0.000000	0.000000	0.000000	0	lb
6	0	0.000000	0.000000	0.000000	0	lb
7	0	0.000000	0.000000	0.000000	0	lb
8	0	0.000000	0.000000	0.000000	0	lb
9	0	0.000000	0.000000	0.000000	0	lb
10	1010	2966.000000	2524.000000	442.000000	3	lb

**rESEt** This clears the entire 200-channel database.

This completes the Supervisor menu. To return to normal mode repeatedly press the **TARE** key to exit.

## 6.1 Printed Preset Tare report example

---

Tare Index	Preset Tare	
1	500	lb
2	0	lb
3	0	lb
4	0	lb
5	0	lb
6	0	lb
7	0	lb
8	0	lb
9	0	lb
10	0	lb



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