Avery Weigh-Tronix

ZP900
Post Scales

User Instructions

Table of contents

1   General information and warnings

1.1   About this manual

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

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

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.

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.

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

1.2   Installation

QR#XVHU#VHUYLFHDEOH#SDUWV1#UHIHU#WR#TXDOLILHG#VHUYLFH#
SHUVRQQHO#IRU#VHUYLFH1

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."

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

1.2.1   Safe handling of equipment with batteries

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.

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.

1.2.2   Wet conditions

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

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

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

2   Introduction

The ZP900 high performance post mail and shipping scales provides a choice of indicator types and BSQ base sizes and capacities. For capacity choices refer to the product literature. The BSQ base sizes available are:

- o   9 in x 12 in (230 mm x 305 mm) base
- o   12 in x 14 in (305 mm x 355 mm) base

The type of indicators available include:

- o   base-mounted
- o   desk-mounted
- o   pole-mounted display (single or dual display available)

The indicator comes standard with two RS232 COM ports and can be upgraded to enable use of 2 USB HID ports and an Ethernet port. Refer to the product literature for a description of the features, options and specifications.

Figure 2.1 ZP900 post scale series

When a base-mounted indicator is attached to the BSQ scale, be sure the feet are adjusted so the indicator is not touching the desk/table, just the feet.

2.1 Unpacking and installation

Unpack the scale and check for any damage. Report damage to the shipping company immediately.

2.1.1 Removing the shipping stops

Four colored shippings stops are installed under the platter of the BSQ scale at the factory. Before you begin weighing be sure to remove these stops. Refer to the following photos.

Shipping stops shown taped in place.

Remove the tape and slide the stop to the nearest slot in the base (pointed out in the photo above).

Slide the stop down and remove it from the slot. Keep for future shipping.

Repeat these steps on all four corners. Save and re-use if shipping the scale becomes necessary in the future.

2.1.2 Leveling the scale

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 2.2.

Locking collar

Foot

Figure 2.2 Foot and locking collar

2.2   Connections

2.2.1   Connections on the ZP900

The connections for the ZP900 indicator are shown in Figure 2.3.

Slot in the RJ45 connector to receive the key on the mating connector of the scale cable

| Quartzell scale connector | Serial connector | USB HID connector | USB HID connector | Ethernet connector | Power connector |

Figure 2.3 ZP900 connections

The supplied RJ45 cable is used for connecting between the indicator and base. The cable and receptacle connectors are keyed so that it will only fit into the ZP900 Quartzell Scale and BSQ Scale connectors. See the areas pointed out in Figure 2.3 and Figure 2.4.

Key on the RJ45

Figure 2.4 Keyed RJ45 cable connector

If substituting this with a non-keyed RJ45 cable do not inadvertently connect between the BSQ Scale and ZP900 Ethernet connectors as it may damage the internal ZP900 Ethernet port components.

The Desk mount ZP900 comes with the in-line PSU which can be connected to either the ZP900 or the BSQ power input connector. Power is supplied to the other device through the RJ45 interface cable.

2.2.2   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 2.5.

Back panel for AC power only

Back panel for DC or AC Power

Figure 2.5 BSQ connections

Base mount

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 2.6.

Figure 2.6 AC power block

Plug the power cord into a properly grounded outlet, then into the receptacle in the PSU. See Figure 2.7.

Figure 2.7 AC power connections

Battery power

The optional battery pack connects to the two battery connections as shown in Figure 2.8. The battery provides approximately 20 hours of operation for a single display and 15 hours for a dual display system before charging is necessary.
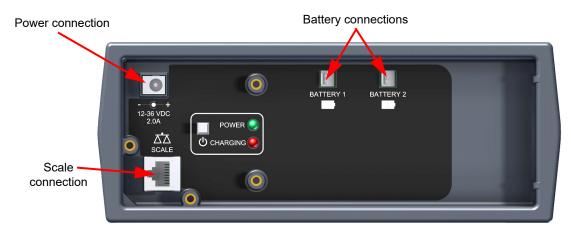

Figure 2.8 Battery pack connections

When a 24-36 VDC power supply is plugged into the power connection on the back panel of the ZP900, 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 2.8, can be used to turn the ZP900 indicator on or off.

2.3   Powering up the ZP900

The indicator requires input power of 12 to 36 VDC @ 200ma min. The indicator is always ON as long as power is received. If using the ZP900 rechargeable battery pack, the battery timer setting can be used to turn the Indicator display OFF automatically.

Power can be supplied by:

   o   The included AC to 24VDC in-line PSU connected to a properly grounded outlet (100 VAC - 240 VAC, 50 or 60 Hz)
   o   Optional rechargeable battery pack mounted on the rear of the base. 20 hours operation between charges. Recharge time is four hours using the in-line PSU. The battery pack requires 24 to 36V to charge.
   o   12 to 36 VDC power (150ma minimum at 24VDC) via a 2.1mm center positive barrel jack

2.4   Front panel

The front panels for the ZP900 indicator and remote display are shown in Figure 2.9 and consists of the keys and the display.

Refer to the supplied label kit for appropriate capacity and classifier markings. Labels should be applied in areas pointed out by the arrows. See example below.

W1	W2	W3
Max 10 lb	**Max 30 lb**	**Max 70 lb**
Min 0.04 lb	**Min 0.1 lb**	**Min 0.2 lb**
e 0.002 lb	**e 0.005 lb**	**e 0.01 lb**

Figure 2.9 Indicator and remote display front panels

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

2.5 Keys

The functions of each key on the front panel are listed below.

→0← ZERO ↵	Press the **ZERO** key to zero the display. Acts as an **ENTER** key to accept a displayed value or function.
F1	**Weigh mode** - Press the **F1** key to toggle the active unit of measure if two units of measure are configured. Press and hold the **F1** key to access the password entry screen. **Menu Navigation** -Aborts a numeric entry and acts as an ESCAPE key for menu navigation.
▲	**Menu Navigation** - Move up in a menu. **Numeric entry** - Increments the value of the flashing digit. Allows you to access minus and comma signs.
▼	**Menu Navigation** - Move down in a menu. **Numeric entry** - Decrements the value of the flashing digit.
◄	**Menu Navigation** - Move left in a menu **Numeric entry** - Acts as a backspace shifting digits right on the display
►	**Menu Navigation** - Move right in a menu **Numeric entry** - Inserts a 0 and shifts digits left

2.5.1 Annunciators

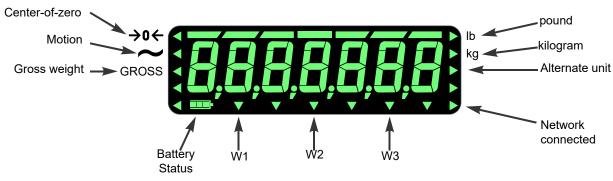The annunciators on the display are shown and labeled in Figure 2.10.

Figure 2.10 Annunciators

2.6   Numeric entry procedure

The keys in Figure 2.11 have alternate functions in numeric entry screens.

▬ ▬ ▬	These segments flash in numeric entry mode
UP arrow ▲ −	Press to increment the flashing number
DOWN arrow ▼ −	Press to decrement the flashing number
LEFT arrow ◄ −	Press to backspace cursor in a number
RIGHT arrow ► −	Press to advance cursor in a number
ZERO / ↵ −	Press to accept a value
F1 −	Press to escape an entry screen

Figure 2.11 Key function during numeric entry

In numeric entry screens, the center segments shown in Figure 2.11 flash. To enter a value on the display use the keys as described in Figure 2.11. Following is an example:

Example: To key in the number 1793:

With a *0* flashing on the display press the **UP arrow (▲)** until *1* appears on the display.

Press the **RIGHT arrow (►)** key to shift the *1* left.

Repeatedly press the **UP arrow (▲)** or **DOWN arrow (▼)** key until *7* appears on the display.

Press the **RIGHT arrow (►)** key again to shift the *17* left and insert a *0*.

Repeatedly press the **UP arrow (▲)** or **DOWN arrow (▼)** key until *9* appears on the display.

Press the **RIGHT arrow (►)** key to shift the *179* left and insert a *0*.

Repeatedly press the **UP arrow (▲)** or **DOWN arrow (▼)** key until *3* appears on the display.

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

If necessary to change an entered value press the **Left arrow (◄)** key to delete the right most digit.

2.7   Accessing the menus

Follow these steps to access the various menus in the indicator.

1.   With the indicator powered up and in normal operating mode, press and hold the **F1** key …

> *Pass* is briefly displayed, then a flashing *0*, prompting you to enter the password.

2.   Use the *Numeric entry procedure* on page 17 to key in the password for the menu you want to access and press the **ZERO** key to accept it …

> 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 appear on the bottom of the keys.

Menu Navigation Keys:

> Press ▼ to move down in a menu
>
> Press ▲ to move up in a menu, except at the bottom item in a menu, then use **ZERO/** ↵ or **F1**
>
> Press ◀ to move left in a menu
>
> Press ▶ 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

2.8   Exiting the menus

1.   When in the configuration selection of a menu you must press either the **ZERO** key to accept or **F1** to not accept the choice or value. Then press the **UP arrow** key repeatedly until …

> *SAVE no* is displayed.

2.   Use the **LEFT arrow** or **RIGHT arrow** key to scroll through these choices: *SAVE no*, *SAVEYES* and *CAnCEL*.

> If you choose *SAVE no* any changes made will not be saved on exit.
>
> If you choose *SAVEYES* then the changes will be saved on exit. When *SAVEYES* is selected the indicator will also attempt to auto-zero the scale. Refer to *Initial power up* on page 19 for details.
>
> If you choose *CAnCEL*, the indicator remains in the menu.

3   General operation

When power is cycled or when exiting from a menu the message *PoSt* is displayed briefly.

3.1   Initial power up

3.1.1   Power up zero

On power up or when exiting from any menu with *SAVEYES* selected, the scale must be within the Power Up Zero window (default is +/- 10%) or a message *Z-Error* is displayed. Remove the weight causing the error and when stable the display should show Zero weight and be ready for normal operation. If the scale will not capture zero then it may need to be calibrated. Refer to the Service manual or contact the scale provider if needed.

3.1.2   Power up gravity

If the Power Up Gravity setting was previously enabled the display will prompt with the message *grAVitY*.

Press the **ZERO** key and the previous setting for the calibration gravity value will be displayed. This value can be accepted by pressing the **ZERO** key or enter a new value to match the installation site location. Use the *Numeric entry procedure on page 17*.

The scale should then perform as though calibrated at the installation location. Press **F1** to bypass Gravity entry but this process will be repeated on the next power up until a value is accepted. Refer to local area Gravitational constants or contact the scale provider if needed.

🛈 *CAUTION: Verify with local agencies if adjusting the gravity factor is accepted in your area. It may be required that calibration be done with certified weights.*

3.2   ZERO key

The **ZERO** key can be used to re-capture zero if the weight is stable and inside the allowable zero range (default is +/- 2%). If **ZERO** key is pressed when the weight is unstable or outside the zero range the message *cAnt* is displayed.

3.3   F1 key

If a second unit of measure has been configured the **F1** key will toggle the display between the available units of measure. If the second unit of measure is not lb or kg then the 3rd annunciator along the right side of the display will be illuminated when active. The **F1** key is also used for password entry to gain access to the ZP900 Configuration and Diagnostic Menu's. Refer to *Accessing the menus on page 18*.

4 User menu

A password protected USER level menu is available to view information and set certain parameters.

4.1 Menu annunciators

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:

All segments flashing This means you are in the menu structure but not in any of the following screens.

Center flashing / others off This means you are in a numeric entry screen. Enter a number and press **ZERO** to accept.

Right flashing / others off This means you are in a list. Scroll through the choices with the **LEFT arrow** and **RIGHT arrow** keys and press **ZERO** to accept.

4.2   USER level menus

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.

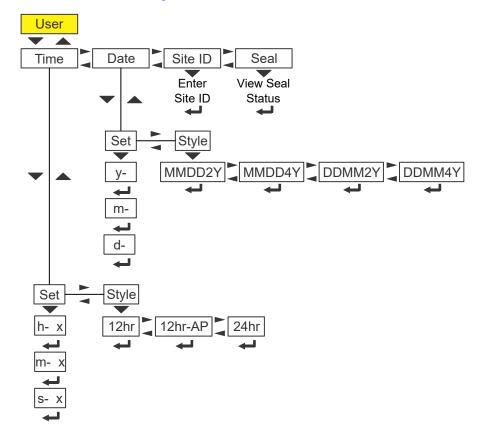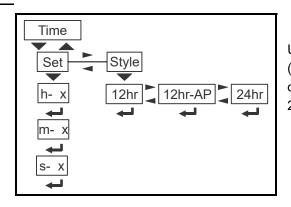## 4.3   User menu

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.

4.3.1 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.
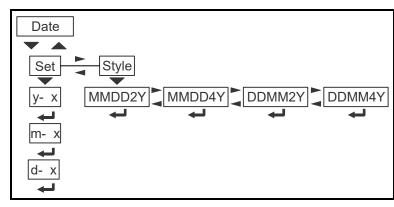
The Time and Date can be used in print formats.

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

4.3.2 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

4.3.3   Site ID

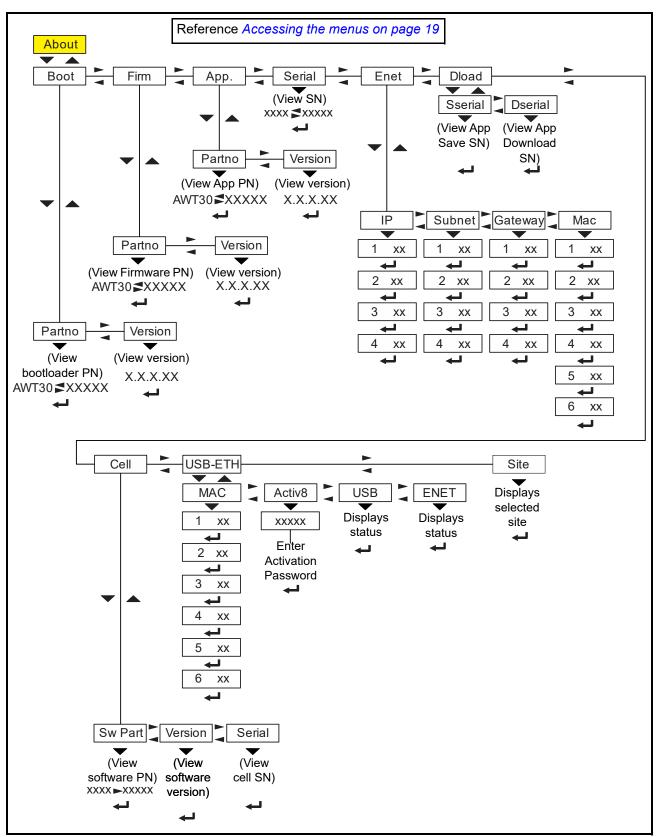|		
Site ID ▼ Enter Site ID ↵	***SitE***	Use this to enter a Site ID. The Site ID can be used in a print format. Valid entries are decimal 32 through 126 (ASCII space to the ~ character).

4.3.4   Seal

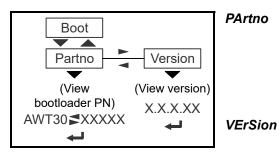|		
Seal ▼ View Seal Status ↵	***SEAL***	Use this to view the seal status of the indicator. This is the status of the physical seal jumper inside the indicator. If the unit is sealed, no changes can be made to the configuration of the indicator.

4.4   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.*

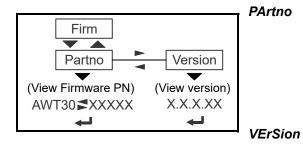***App***   *Specific software that controls the behaviour for a given installation.*

4.4.1   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.

4.4.2   Firmware

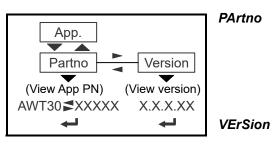***PArtno***   Use this to view the firmware part number. The part number is displayed in two parts. Press **RIGHT arrow** key or **LEFT arrow** key to toggle the display between the first and second parts of the part number.

VErSion   Use this to view the version of the firmware.

4.4.3 App

```
         App.
          ▼▲
       Partno  ►◄  Version
          ▼             ▼
    (View App PN)   (View version)
    AWT30⇄XXXXX     X.X.X.XX
          ↵             ↵
```
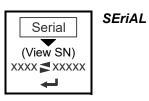
PArtno Use this to view the App part number. The part number is displayed in two parts. Press **RIGHT arrow** key or **LEFT arrow** key to toggle the display between the first and second parts of the part number.
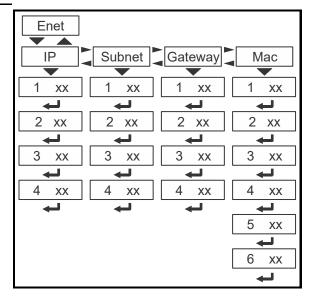
VErSion Use this to view the version of the App.

In the ZP900 the Application is embedded with the Firmware so the Part number and Version will be the same.

4.4.4 Serial

```
       Serial
         ▼
     (View SN)
   xxxx⇄xxxxx
         ↵
```

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.

4.4.5 Enet

```
    Enet
     ▼▲
    IP  ►◄ Subnet ►◄ Gateway ►◄  Mac
     ▼        ▼         ▼          ▼
  1  xx    1  xx     1  xx      1  xx
    ↵        ↵         ↵          ↵
  2  xx    2  xx     2  xx      2  xx
    ↵        ↵         ↵          ↵
  3  xx    3  xx     3  xx      3  xx
    ↵        ↵         ↵          ↵
  4  xx    4  xx     4  xx      4  xx
    ↵        ↵         ↵          ↵
                              5  xx
                                ↵
                              6  xx
                                ↵
```

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.
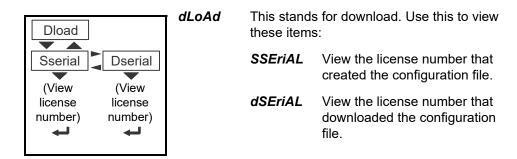
iP Use this to view the IP address.

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.
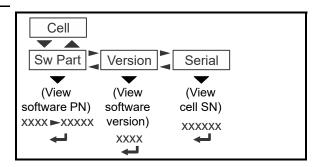*The MAC address is a series of six double digit values: 1   XX, 2   XX, 3   XX, etc.*

4.4.6 Download

dLoAd	This stands for download. Use this to view these items:
SSEriAL	View the license number that created the configuration file.
dSEriAL	View the license number that downloaded the configuration file.

If the license number of your Configuration Software application does not match either the SSerial or DSerial numbers you will be unable to upload the existing configuration file from the indicator, but you can always download a new configuration file which will then add your license number to the Dserial value. Contact AWTX Technical Support for assistance.
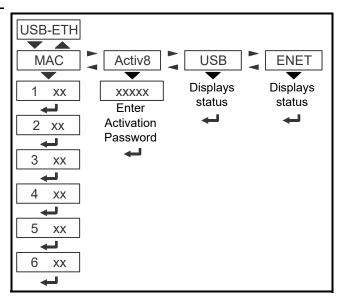
4.4.7 Cell

cELL	Use this menu item to view information about the Quartz Digital Transducer (QDT).
SW PArt	View the software part number for the cell.
VErSion	View the version of the cell software.
SEriAL	View the serial number stamped on the side of the cell.

4.4.8 USB-ETH

uSb-Eth   The Ethernet and USB ports on the ZP900 are not functional unless activated. This menu contains information necessary to activate the two USB-HID and/or Ethernet ports on the ZP900. Record the MAC address found in this menu before contacting AWTX for activation code instructions.

MAC   View the MAC address of the indicator Ethernet port.

ACtiv8   Enter the activation code you receive from Avery Weigh-Tronix to enable the USB-HID and/or Ethernet ports.

uSb   View the USB-HID port status (**ON** or **Off**).

EnEt   View the Ethernet port status.(**ON** or **Off**).

4.4.9 Site

Use this menu item to view the selected Site (i.e. USA, GB, CAN, etc.)

This completes the About menu. To exit the menu, see *USER level menus* on page 21.
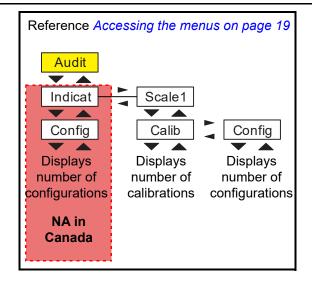
4.5   Audit menu

Reference *Accessing the menus on page 19*

Figure 4.4 Audit menu

Use this menu to display audit counters for configuration and calibration.

4.5.1   Indicator

conFig   Display the number of times that a change in the SYSTEM or PORTS menu has occurred.

4.5.2   Scale1

cALib   Display the number of times that a change in the CALIB menu has occurred

conFig   Display the number of times that a change in the SCALE menu has occurred.

5   Communications

The ZP900 can communicate through these ports:

- ○ Serial Port 1 and 2
- ○ Optional communication ports are available for Ethernet and USB-HID. Contact AWTX or your scale supplier for information on how to activate the USB or Ethernet ports.

5.1   Serial communication port defaults

	Port 1	Port 2	Port 2 (UK)
Protocol	SMA	NCI	D901
Baud Rate	9600	9600	2400
Data Bits	8	7	7
Parity	none	even	even
Stop Bits	1	1	1

Refer to the ZP900 Service Manual for full details on communication protocols and port configuration.

5.1.1   Serial cable wiring for 9P AWTX supplied cable types

PC	Desc	Color	ZP900 Port 1	ZP900 Port 2
2	RXD	Red	TB3-2 (TX1)	TB3-3 (TX2)
3	TXD	Green	TB3-4 (RX1)	TB3-5 (RX2)
5	GND	Black	TB3-1	TB3-1

5.2   RS232 Serial ports default settings

5.2.1   For USA

Port 1 is set to SMA protocol @ 9600, 8, none, 1. This allows for connection directly to the optional ZP900 remote display.

Port 2 is set to NCI protocol @ 9600, 7, even, 1 and ENQ=5. This matches the default protocol of the NCI 7600 series.

To match the NCI 7800 series may require changing the Port 2 protocol attributes setting for ENQ to 2. This changes the number of transmitted display digits from 7 to 6 and status bytes from 3 to 2.

For certain software interfaces this may be unnecessary so test the communication before changing the default settings.

Refer to the ZP900 Service manual for details or contact you scale supplier.

For other countries the default settings for Port 2 may vary.

5.3   USB HID

If enabled the ZP900 USB HID ports will communicate with various Shipping Software packages. Refer to our website at http://www.averyweigh-tronix.com for a list of which Shipping Software supports the ZP900 USB HID interface.

5.4   Ethernet

If enabled the ZP900 Ethernet TCP/IP port uses the following default settings:

IP address:	192.168.1.91
Subnet:	255.255.255.0
Gateway:	0.0.0.0
DHCP:	OFF
Mode:	Server
Port:	10001
Protocol:	SMA

6 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	cAnt
Bounds / Entry not in valid range	bound5
Invalid / Password entry failed	inUAL id
Z-error / Power up zero error - see *Power up zero on page 19*	2-Error
Gravity / Power up gravity prompt - *Power up gravity on page 19*	grAU itY
Error 250 / Scale not communicating - check interface cable from scale to indicator, contact scale service provider if error continues	Err 250
Save F / Failure to write configuration data to BSQ – Press the **ZERO** key to clear the error message and check the interface cable from scale to indicator and repeat the configuration procedure. Contact scale service provider if error continues.	SAUE F
BSQ Error / ZP900 and BSQ have not been calibrated together	b59 Err

7   Supervisor menu

Access the supervisor menu using the password 1793. Refer to *Accessing the menus on page 18* for instructions.
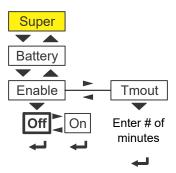
7.1   Post application supervisor menu

Figure 7.1 Supervisor menu for the Post application

7.1.1 Battery

The battery status and timeout features are only applicable when using the ZP900 battery option and do not function with other battery sources.

bAttErY   Use this to enable the battery and to set a timeout length (in minutes). If this time expires with no scale or keypad activity the indicator will automatically shut off.

EnAbLE   Choices are *oFF* and *on*. Choose *oFF* to disable battery usage. Choose *on* to enable battery usage.

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.

Repeatedly press the **UP arrow** key until the indicator returns to normal weighing mode.

When battery timeout is enabled, just prior to shutting off the display will show *buSY* and then *--oFF--* and the display will turn off.

To restart the indicator press the red POWER button on the back of the BSQ base.
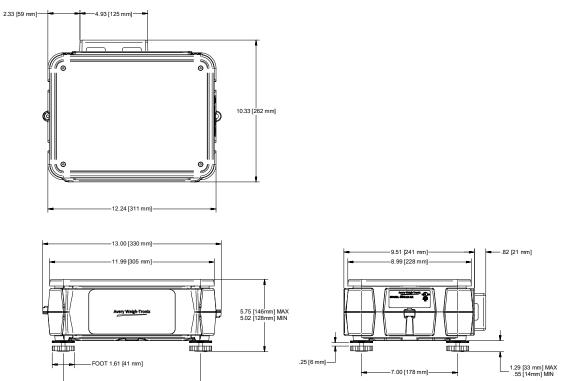
If this feature is used with a non-battery operated ZP900 then to restart the indicator requires a disconnect/reconnect of the power cable. If a remote display is also connected it will show *oFFLinE* until the ZP900 is restarted.
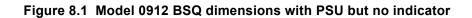
The changes are saved automatically and the indicator reboots.

8 Outline dimensions and connections

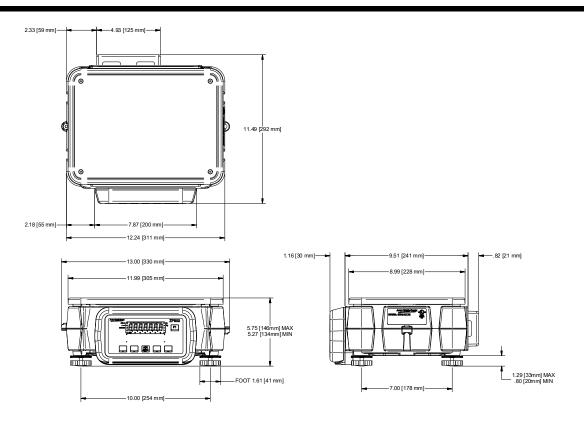**Figure 8.1 Model 0912 BSQ dimensions with PSU but no indicator**

Figure 8.2 Model 0912 BSQ dimensions with PSU and indicator
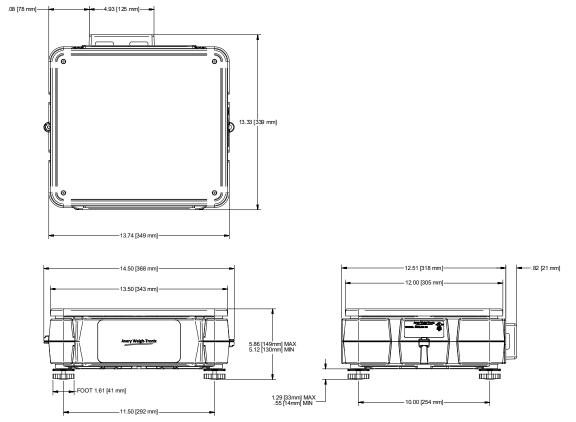
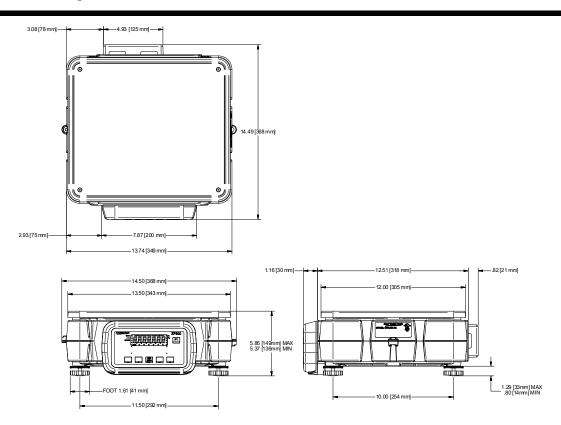**Figure 8.3 Model 1214 BSQ dimensions with PSU but no indicator**

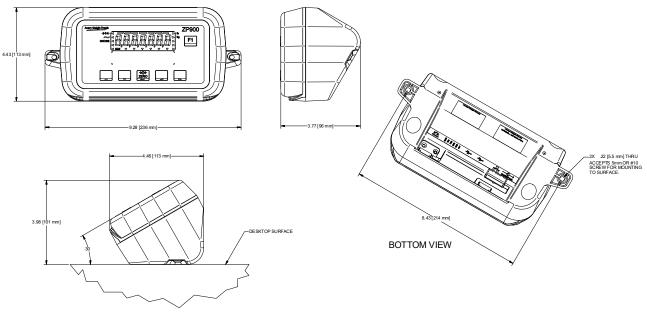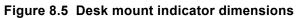**Figure 8.4 Model 1214 BSQ dimensions with PSU and indicator**

4.43 [113 mm]

9.28 [236 mm]

3.77 [96 mm]

4.46 [113 mm]

3.98 [101 mm]

30

DESKTOP SURFACE

2X .22 [5.5 mm] THRU
ACCEPTS 5mm OR #10
SCREW FOR MOUNTING
TO SURFACE.

8.43 [214 mm]

BOTTOM VIEW

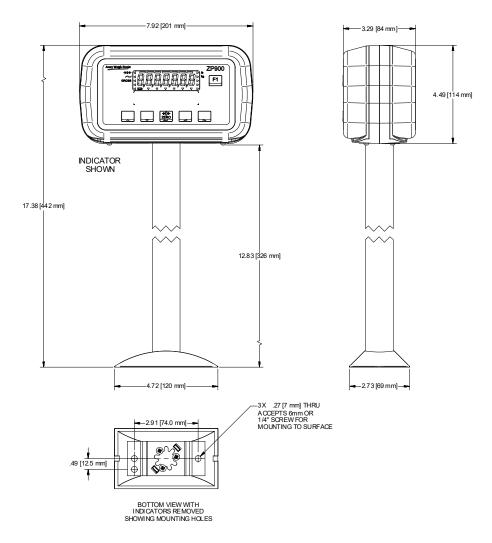**Figure 8.5 Desk mount indicator dimensions**

Figure 8.6 Pole mount and indicator dimensions

8.1   Connections

8.1.1   Connecting a Remote Display

Wiring instructions - Remote Display to Indicator	
Remote Display Serial Port	**Indicator Serial Port**
TB3 Pin 1 - Blue (GND)	TB3 Pin 1 - Blue (GND)
TB3 Pin 2 - White/Orange (TX1)	TB3 Pin 4 - White/Orange (RX1)
TB3 Pin 4 - White/Blue (RX1)	TB3 Pin 2 - White/Blue (TX1)
TB3 Pin 6 - Orange (+5V)	TB3 Pin 6 - Orange (+5V)

Confirm default settings on the ZP900:
Serial port 1 (9600, 8, n, 1) and Protocol 1 (SMA on Port 1).

8.1.2 Connecting a 2nd Remote Display

To connect a 2nd Remote Display requires connecting from Com2 of the ZP900 to Com1 of the 2nd Remote Display.

Wiring instructions - 2nd Remote Display to Indicator	
Remote Display Serial Port	**Indicator Serial Port**
TB3 Pin 1 - Blue (GND)	TB3 Pin 1 - Blue (GND)
TB3 Pin 2 - White/Orange (TX1)	TB3 Pin 5 - White/Orange (RX2)
TB3 Pin 4 - White/Blue (RX1)	TB3 Pin 3 - White/Blue (TX2)
TB3 Pin 6 - Orange (+5V)	TB3 Pin 6 - Orange (+5V)

For the 2nd Remote Display to function the ZP900 will need to be configured for Serial port 2 (9600, 8, n, 1) and Protocol 2 (SMA to Port 2).

2 wires will need to be attached to TB3 pin 1 (GND) and pin 6 (+5V) on the ZP900 indicator.

In order to connect to a PC terminal using a serial RS232 interface when two remote displays are already connected to the ZP900 serial ports, you can use Com 2 on either remote display and refer to the dip switch settings to select from an available protocol.

9 Agency and sealing label positions

There are two main labels that go onto the BSQ base. The NTEP info is on one, the EU and ROW approvals on the other. If the BSQ is part of a ZP900 system there is a third label which is applied.

The EU/ROW label is placed on the left side of the BSQ base. This where the level bubble is located. See placement in Figure 9.1.

The NTEP label is placed on the right side of the base. See placement in Figure 9.1.

When certified a verification mark sticker (certifying body supplied) is applied in the location shown in Figure 9.1.
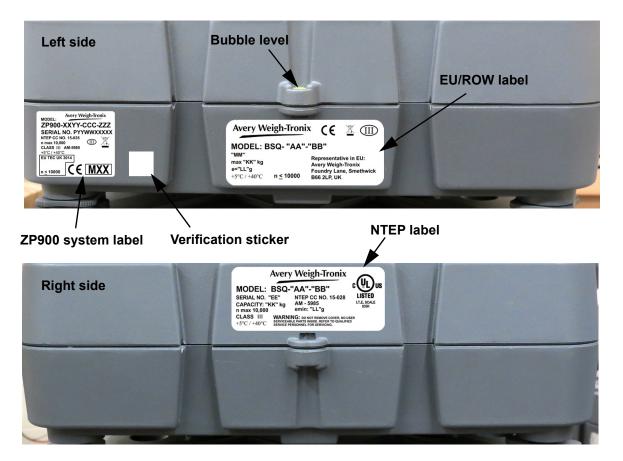

Figure 9.1 Label placement

The BSQ is sealed when necessary by using 2 seal labels, placed across the mid-seam of the housing on opposite sides of the scale. See below for the position of one such label.

Agency and sealing label positions

Avery Weigh-Tronix