

Avery Weigh-Tronix

ZK840

Checkweighing Application



User Instructions

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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 and reflect the case of the annunciator.

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



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

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

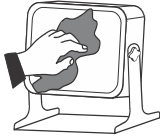


IMPORTANT: *This equipment must be routinely checked for proper operation and calibration. Application and usage will determine the frequency of calibration required for safe operation.*

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
Spray the cloth when using a proprietary cleaning fluid	Use harsh abrasives, solvents, scouring cleaners or alkaline cleaning solutions
	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 ZK840 is a fully programmable indicator which, when attached to a BSQ digital scale base, creates a highly accurate counting and weighing system. With custom programming the indicator and its touch-screen graphic display can perform many other functions. This manual applies to the Checkweighing application. See Chapter 3 for information about the Checkweighing application.

The indicator, shown in [Figure 2.1](#), requires 100 VAC - 240 VAC, 50 or 60 Hz or 9-36VDC. The indicator has two full duplex RS232 ports, two USB host ports, Ethernet port, one Micro SD slot, three logic level inputs with configurable functions, three setpoint outputs and an expansion card slot for 1 of 2 option cards:

- 802 Wireless card
- 5V Analog scale card

Other options available are a stack light kit for visual confirmation of outputs, two columns for mounting the indicator above the BSQ base, battery packs and scanners. The ZK840 allows five bases to be used (one local BSQ base, two remote BSQ bases and two analog platforms). Other base combinations are available.

See the Specification literature for a full list of specifications.

For information on the BSQ bases please refer to the manuals for the BSQ line.

[Figure 2.1](#) shows the front panel of the ZK840 indicator. The front panel consists of the keys and the graphic display.

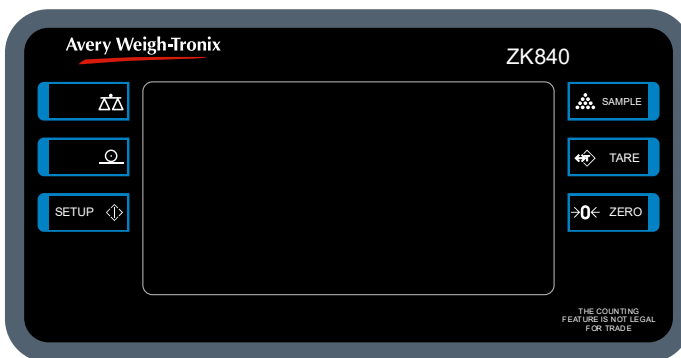








Figure 2.1 ZK840 front panel



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

2.1 Front panel keys

The keys and their functions are listed below.

 SAMPLE	The SAMPLE key sets the lives weight as the target weight.
 TARE	Press the TARE key to perform a pushkey tare function or with zero weight on the scale press the TARE key to enter a known tare. To clear a tare, press and hold the TARE key.
 ZERO	Press the ZERO key to zero the display.
 SETUP	The SETUP key can be used to perform custom application functions. It can also be used to access the password entry screen for menu access.
	Press the PRINT key to print the configured information through the configured port. A long key press will print and clear the Count totals.
	Press the SCALE key to switch the display between different connected scale bases.

2.2 Softkeys

Softkeys are the key images that appear at the bottom of the display. Their functions change to suit the situation. In this manual, when you are instructed to press a particular softkey, the text will name the function and then show the image appearing on the softkey. For example: Press the **UP** (▲) softkey.

2.3 Annunciators

On screen you will see various annunciators. Below are the annunciators and what they mean.



Motion - This appears when the indicator senses scale motion.



Center of Zero - This appears when the scale is in the zero window.



Scale - If multiple scales are attached and active, this annunciator shows which scale's information is being displayed.



Weight Range 1 - For multi-range operation, this shows which weight range the weight is in. May also be **W2** or **W3**.



Appears when a Preset Tare is active.

2.4 Powering up a ZK840 indicator

The indicator is always active as long as power is received. Power must be 100-240 VAC with a frequency of 50 or 60 Hz, or 9-36 VDC.

2.5 Adjusting screen contrast

To adjust the screen contrast press and hold the middle key on the left side of the ZK840 and repeatedly press the **SAMPLE** key to increase contrast or the **TARE** key to decrease the contrast. You may need to press the key many times until the change is visible.

2.6 Touch screen calibration

If you need to calibrate the touchscreen, press and hold the top key on the left side of the ZK840 on powerup and the touch calibration screen appears. Follow the prompts to calibrate the screen.

2.7 Web access

The ZK840 can be accessed from a web browser. This allows you to access basic functions of the scale, such as zero, print, and tare.

You must have the scale connected to the internet and when you enter the IP address of your scale in the browser address bar, the following screen will appear allowing access to the scale.

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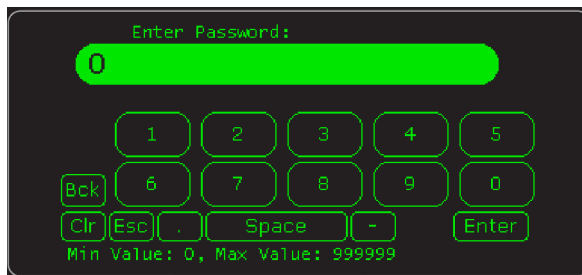
The screenshot displays the web interface for the ZK840 scale. At the top, there is a navigation bar with three buttons: "Home", "Scale", and "About". Below this, the "Scale" menu is active, showing the following information and controls:

- Gross :** 0.0000 kg, with a **TARE** button.
- Net :** 0.0000 kg, with a **ZERO** button.
- Part # :** An empty input field, with a **SET** button.
- User:** 12-15-2017 02:31:12 PM
- UCL:** 0.0000
- Mean:** 0.0000
- LCL:** 0.0000
- At the bottom, there are three buttons: "-", "=", and "+".

2.8 Menu access and navigation

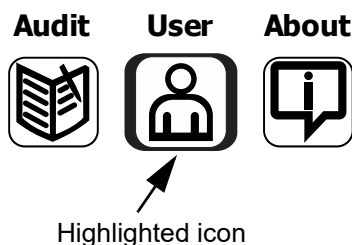
The menus used to configure the ZK840 are accessed with passwords. See [User menu on page 20](#) and [Supervisor menu on page 24](#) for passwords and information on the menus. This section is to introduce you to the general information about menus.

Press and hold the **SETUP** key to access the password entry screen, shown below.

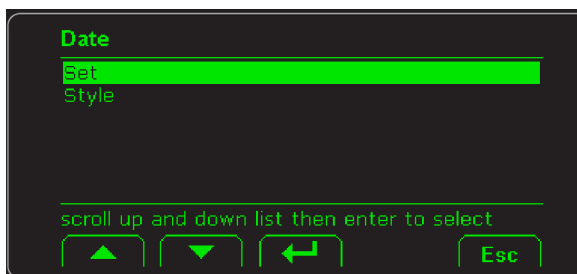


Enter the password for the menu you want and press the **Enter** key. On-screen prompts often guide you as you move through the menus.

When icons are on screen the bold box around an icon means it is the highlighted icon. See the example below.



When a text list appears on screen the highlighted item is shown by a green bar over the text. See the example below.



Press the **UP** (▲) or **DOWN** (▼) softkey to move the highlight and then press the **Enter** (↵) softkey to accept the highlighted choice. Press **Esc** to return to the previous screen without making a change.

2.8.1 Escaping or exiting from a menu

In any menu you will have either **UP** or **ESC** softkeys.

To exit any menu, if there is an **ESC** softkey, use it until it disappears then use the **UP** softkey until you are asked if you want to save any changes or not. Highlight your choice and press **Enter** (↵) to accept.

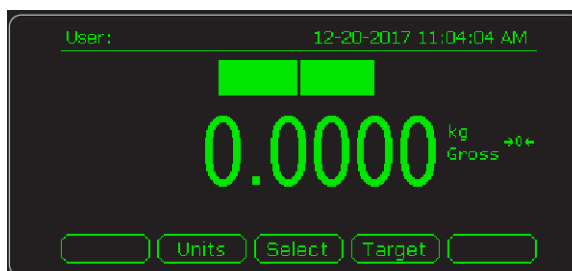
The indicator will reboot and return to the startup screen.

3 Operating Instructions

3.1 Power up

The indicator can be powered by one of the battery options on the BSQ scale or by AC power supply. If the battery option is used, there is a power key on the rear of the scale. Press and hold the key until the screen lights up. If AC power is used, when the power is on, the indicator is on.

When the indicator is powered up, you will see a startup screen similar to the one below.



*The screen above shows the default screen in the checkweighing application. There are other screens you can choose which enable or disable various functions such as: the PLU database screen size and an averaging function. See the menu item **Application Mode** under [APP key on page 29](#).*

With the Checkweigh application active the screen shows the user name and time and date in the top line. Below that is the current weight. Below that is the bargraph and active softkeys.

3.1.1 Setting User name, time and date

Touch the *User* area of the screen and a keyboard pops up so that you can enter your desired user name. Press **Enter** (↵) to accept. The user name will remain active until changed or deleted.

Touch the time and date area and enter the requested data, i.e. Year, month, etc.

3.1.2 Key functions

Below are short descriptions of three softkeys' functions.

PLU key	Use this key to recall a PLU from the database.
UNITS key	Use this key to change unit of measure.
SELECT key	Use this key to scroll through the active display values. By default they are: Gross , Net and Tare .
TARGET key	Use this key to enter variables for checkweighing.

3.2 Printing

Press the **PRINT** key when there is no scale motion. What is printed is typically controlled by the custom program. See [Print formats on page 36](#) to see the available default print formats.

3.3 Checkweighing application

3.3.1 Overview

This application offers the following functions:

- Tolerance or limits mode of checkweighing
- Positive or reverse Checkweighing with Auto Tare
- PLU database
- Average Checkweighing
- Basic Pack run counter
- Simple QA messaging
- Data capture

Each is explained in the following sections.

3.3.2 Checkweighing modes

Tolerance mode

There are two modes of checkweighing that can be chosen in the [Supervisor menu on page 24](#): Tolerance mode and Limits mode.

In Tolerance mode you set a target weight, high and low tolerances and minimum and maximum points. See [Figure 3.1](#).

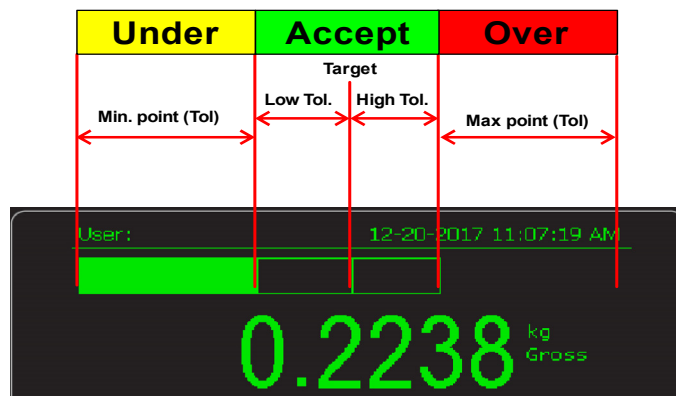


Figure 3.1 Tolerance mode

Limits mode

In Limits mode you don't set a target weight. You set a high limit and low limit for your acceptable weight range and a minimum and maximum point. See [Figure 3.2](#).

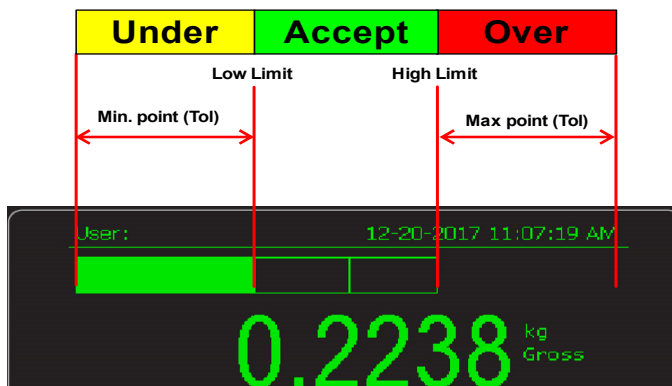


Figure 3.2 Tolerance mode

Reverse checkweighing

Reverse checkweighing involves placing a full container on the scale, taring the entire weight and removing material until the weight is in the accept window. Turn on the Auto-tare feature in the [Supervisor menu on page 24](#) so the scale will automatically zero and make the scale ready for the next weighing.

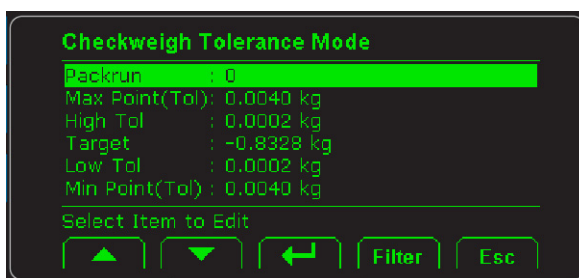


If you are using the database in reverse checkweighing, be sure to enter the target weight as a negative value.

Setup in Tolerance mode

1. In Tolerance mode, press the **Target** softkey to view or change the available settings. These define how the bar graph reacts.

The following screen is displayed:



Packrun

Allows you to track the quantity checked.

Target

Target weight (Can be set by pressing the **SAMPLE** key with a weight on the scale. It can also be set or modified here, if desired.)

High / Low Tol

Sets the upper and lower edge of the accept window away from the target point.

Target wt. + High tol. = upper weight of accept window

Target wt. - Low tol. = lower weight of accept window

Max / Min points

Sets the bar graph start and stop points.

Target wt. + High tol. + Max. point = upper bar graph limit

Target wt. - Low tol. - Min. point = lower bar graph limit

2. Highlight an item in the **Checkweigh Tolerance Mode** screen, press the **Enter** (↵) softkey and enter a value in the screen that appears, such that the bar graph reacts in the way desired for your operation. Press the **Enter** key to accept the value and return to the **Checkweigh Tolerance Mode** screen.
3. Repeat the process for all the items in the **Checkweigh Tolerance Mode** screen. When finished, press the **Esc** softkey to return to the startup screen.

Note that the **High / Low Tol** and the **Max / Min points** are values defining a range, not the actual weights that trigger the bar graph positions. For example:

- Target = 3kg
- High and low tolerance = 0.5kg
- Max and min. points = 0.25 kg

If 3kg is the target weight and you want the high and low tolerances to be 0.5kg above and below that, set 0.5kg as the value, not 3.5kg and 2.5kg. The same holds true for the Max/Min points. If you want the bar graph to top out at 5kg, set the Max point to 1.5kg.

Setup in Limits mode

1. In Limits mode, press the **Target** softkey to view or change the available settings. These define how the bar graph reacts.

The following screen is displayed:



Packrun

Allows you to track the quantity checked.

High / Low Limits

Sets the upper and lower edge of the accept window.

High Limit = upper weight of accept window

Low Limit = lower weight of accept window

Max / Min points Sets the bar graph start and stop points.

High Limit + Max. point = upper bar graph limit

Low Limit - Min. point = lower bar graph limit

2. Highlight an item and press the **Enter** (↵) softkey to enter a value for that item. Press the **Enter** key to accept the value and return to the setup screen.
3. Repeat the process for all the items and when finished, press the **Esc** softkey to return to the startup screen.

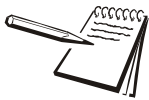
3.3.3 Performing checkweighing operations

Here is an example of a checkweighing procedure in Tolerance mode. Procedures are basically the same in Limits mode except for the bar graph function in relation to target weight.

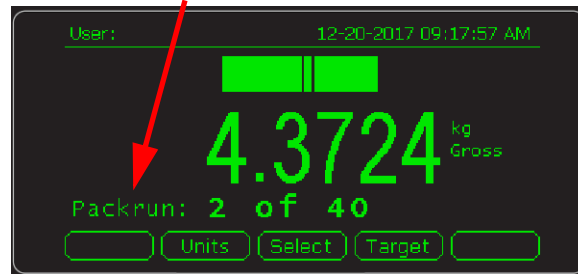
In this example values are set as follows:

- Packrun = 6
 - Target = 3kg
 - High and low tolerance = 0.5kg
 - Max and min. points = 0.25 kg
1. Once the tolerance and target settings are set as shown above, place the object to be weighed on the scale ...

The weight is shown and the bar graph shows Under, Over or Accept.
See the note below.



The display will show a running total of the packrun at the bottom of the display.



Once the total is reached the scale will print the total quantity packed.

Press and hold the **Print** key to clear Packrun totals and restart the counter back to 0.

There is a setting in the [Supervisor menu on page 24](#) called **Packrun Print**. If this is set to **Accept**, only the weighments seen in the Accept window will be counted. If set to **Under/Over/Accept** it will print all stable checkweigh readings.

2. Remove the weight and weigh the next item. As each item is weighed it will be under the target, on target or over the target. When a packrun is complete, **Packrun Complete**, is briefly displayed and a report is sent to a connected device.
3. Keep repeating the procedure until finished with your items.

3.3.4 Checkweighing with PLU database active

If the PLU database is enabled in the [Supervisor menu on page 24](#), a PLU softkey appears on the startup screen. Use this key to recall a stored PLU. See [PLU setup on page 32](#).

Recalling a PLU sets target and tolerances automatically. They can be viewed but not changed in normal operating mode. The PLU must be updated in the supervisor menu.

3.3.5 QA messaging

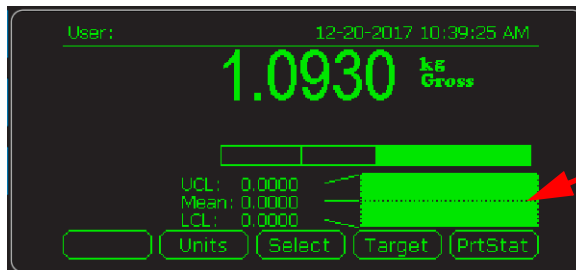
QA messaging is set up in the supervisor menu. See the [Extend key on page 28](#). This is designed to display a custom message on a screen.



Each PLU can have a different message. The scale will display the custom message (1 line of data) until you press any key. You can set a timer to display the message after the set time has elapsed. This is ideal for reminding users to make regular sample checks

3.3.6 Average checkweighing

Average Checkweighing is a mode of operation you can choose in the Supervisor menu. See [APP key on page 29](#). This can be used with or without the database. Below is the startup screen when you are in this mode.



The graph, pointed out in the illustration above, shows the result of a rolling average of the last 100 (default) weighments. This displays the average weight reading along with the highest & lowest recorded weight seen in that buffer window. You can set the number of weighments being averaged from 5 to 1000. A visual line shows you if the average is above or below the current target point.

UCL stands for Upper

LCL stands for Lower

Press the **PrtStat** softkey to print statistical data when required.

4 Error messages

In order to complete the weighing process, a number of conditions must be met. The following messages may appear which may prevent completion of the weighing sequence.

4.1 Printing errors

<i>Timeout</i>	Something interfered with the printing process. Check connections and retry.
<i>Print Error</i>	Something interfered with the printing process. Check connections and retry.
<i>Print Aborted</i>	Something interfered with the printing process. Check connections and retry.
<i>Print Failed</i>	Something interfered with the printing process. Check connections and retry.

4.2 'Copying to or from USB' errors

<i>Failed to Copy File</i>	Something interfered with the copy process. Check USB device.
<i>Can't Close database</i>	Software error. Restart indicator.
<i>File Not Found</i>	File doesn't exist. Create the database.

4.3 BSQ errors

<i>BSQ Error</i>	Communications error
<i>BSQ XCAL</i>	BSQ Calibration Mismatch Error - cell that is connected to the scale is not the cell that was calibrated. X = scale number.

4.4 Accumulation errors

<i>FAILED RTZ ERR</i>	Scale must return to zero between accumulations.
<i>NO COUNT ERR</i>	Count is not a positive number when you try to accumulate. Count must be a positive value to accumulate.

5 User menu

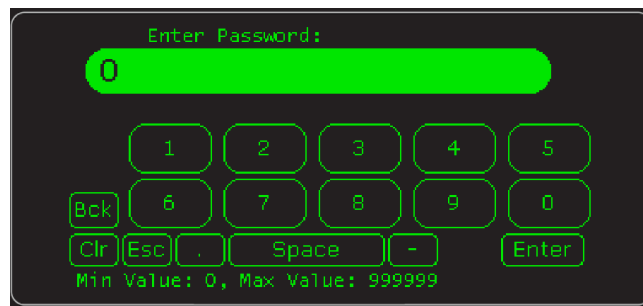
The ZK840 three user accessible menus:

- **User** menu - Use to set Time, Date, Site ID, check Seal status and check Archive information.
- **About** menu - Use to see information on the software, firmware, application, serial number, options, ethernet and downloads
- **Audit** menu - Use this to check and/or print the calibration and configuration counters.

The password for these menus is 111. Follow these steps to access and use these menus.

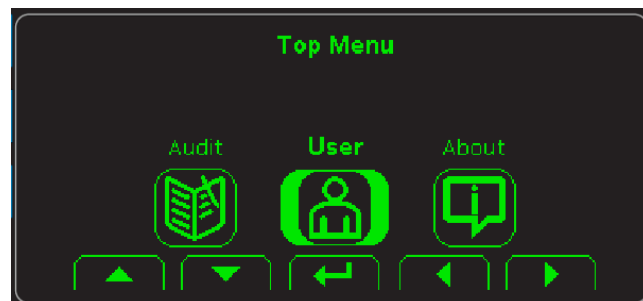
1. Press and hold the **SETUP** key until ...

The password entry screen appears, shown below:



2. Key in 111 and press the **Enter** (↵) key ...

This screen is displayed:



The bold box around the center image means that is the highlighted menu item.

3. Use the **Left** and **Right** keys to highlight the menu you want to enter and press the **Enter** (↵) key. Below are the explanations for these menus.

5.1 User menu

When the User menu is selected, these choices appear:



Use the **Left** and **Right** keys to highlight the menu item you want to access and press the **ENTER** (↵) key.

Time **Set** - Use the numeric keys to enter the correct time in the style chosen below.

Style - Choose the style of time display from these choices:

- 12HR - Shows time in the 12 hour style
- 12HR-AP - Shows time in the 12 hour style with AM/PM
- 24HR - Shows time in the 24 hour style



No matter which style you pick, time must always be entered in the 24 hour style. The display of the time will follow the style you pick.

Date **Set** - Use the numeric keys to enter the correct date in the style chosen below.

Style - Choose the style of date display from these choices:

- MMDD2Y
- MMDD4Y
- DDMM2Y
- DDMM4Y



The date format is how the date is stored internally. Printed dates will appear as programmed in the selected print format.

Site ID Use the alphanumeric keys to enter a Site ID, up to six characters.

Seal Shows the status of the physical seal jumper inside the indicator: **SEAL** or **NO SEAL**. If the unit is sealed, no changes can be made to the configuration of the indicator.

Archive This item appears only if so configured in the ADMIN password protected menu. This stands for electronic archive. In other regions it is known as an alibi memory or tally roll. These will be transmitted via configured communications ports. These reports can be used to confirm a weighment if it is ever in dispute. Only records that are qualified as a LEGAL record, per site motion criteria, are considered as entries to this log.



The indicator has memory capacity to store approximately 5,000 transactions.

The Archive report uses a rolling memory configuration (FIFO) so the oldest transaction will be written over first when all the memory slots are filled.

You can exit the menu by following the instructions in [Escaping or exiting from a menu on page 12](#).

5.2 About menu

If you access the About menu you will see this menu:



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.

Use the **Left** and **Right** keys to highlight the menu item you want to access and press the **ENTER** key.

Boot **PartNo** - See the bootloader part number.
Version - See the version of the bootloader.

Firm **PartNo** - See the firmware part number.
Version - See the version of the firmware.

App **PartNo** - See the application part number.
Version - See the version of the application.

Serial See the serial number of the indicator.

Option **Bus 1** - Choose the Bus of the option card. Only one Bus available on the ZK840.
Card 1 or 2 - Choose the Card you want to view.

- **Type** - View the type of card.
- **Version** - View the firmware version of the card.

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

IP Addr - See the IP address.
Subnet - See the Subnet address.
Gateway - See the Gateway address.
MAC - See the MAC address.

DLoad This stands for download. Use this to view the following:

sSerial - View the license number that created the configuration file.
dSerial - View the license number that downloaded the configuration file.
dName - View the company name for the license shown for downloading.

This is used for security and licensing purposes.

BSQ **Scale X** - Choose the scale.

- **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.

You can exit the menu by following the instructions in [Escaping or exiting from a menu on page 12](#).

5.3 Audit menu

If you access the Audit menu you will see this menu:

Counter



Print



Counter **Config** - See the number of configurations the indicator has undergone.
Calib - See the number of calibrations the indicator has undergone.

Print Use this to select which port to print the audit report through. The audit report will contain both Config and Calib information. 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.

You can exit the menu by following the instructions in [Escaping or exiting from a menu on page 12](#).

6 Supervisor menu

The supervisor menu, shown in [Figure 6.1](#) allows access to the items related to the indicator's function and the Checkweighing application that you can set or enable/disable. Follow the steps below to access the menu items described.

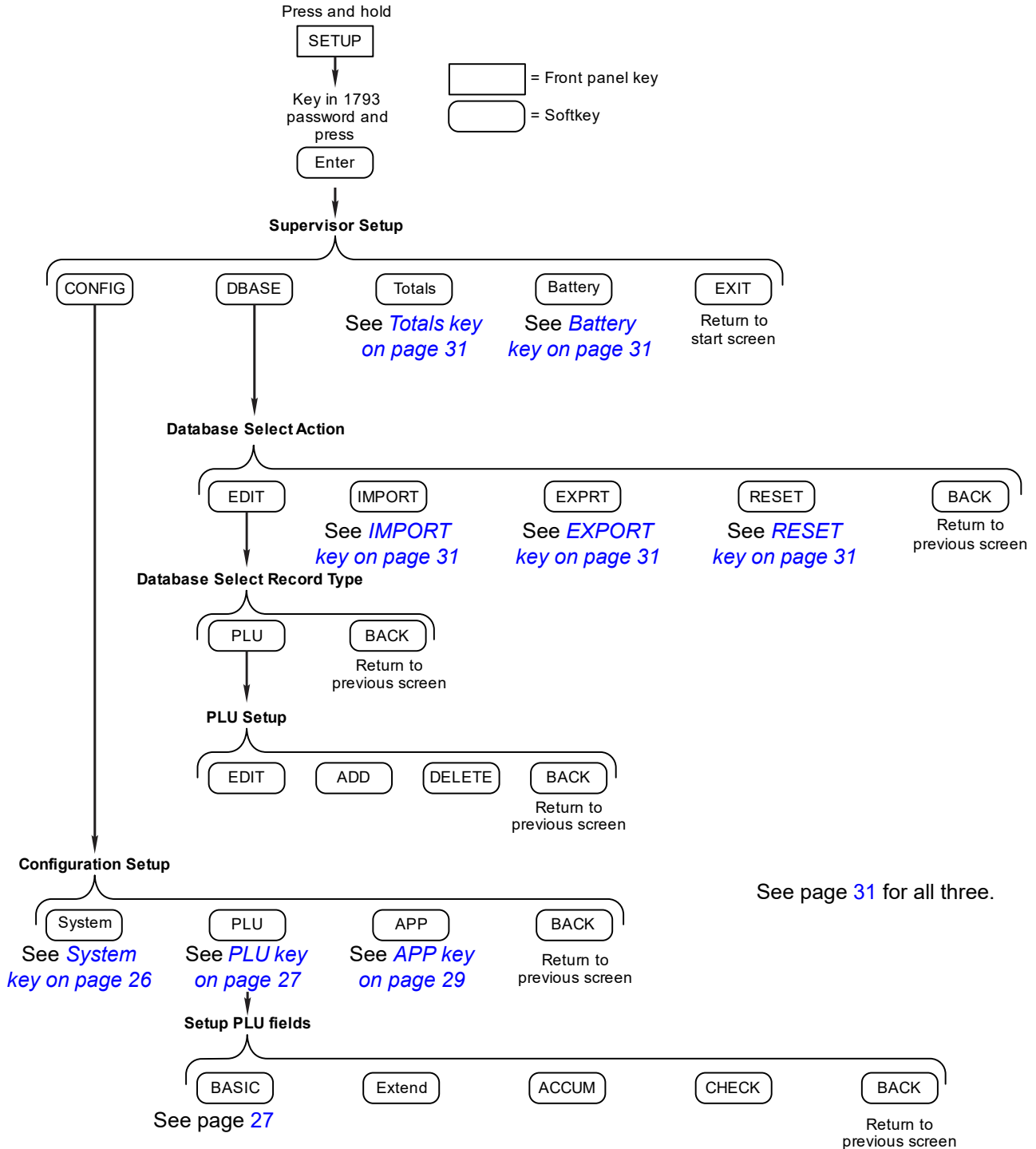


Figure 6.1 Supervisor menu

Press and hold the **SETUP** key until the password entry screen appears. Key in the Supervisor password, 1793, and press the **Enter** key. The screen in [Figure 6.2](#) appears.



Figure 6.2 Supervisor menu, Setup screen

- CONFIG** Press this to set the system parameters and choose what items will be available in the PLU database. See [CONFIG key on page 25](#).
- DBASE** Press this to access the creation and editing functions for the PLUs in the database. You can also import, export or reset the database under this key. See [DBASE key on page 30](#).
- Totals** This key lets you choose a report format and to print totals or clear them. See [Totals key on page 31](#).
- Battery** Press this to monitor battery activity or to set a shut down timer. See [Battery key on page 31](#).

6.1 CONFIG key

The screen in [Figure 6.3](#) appears when you press the **CONFIG** key.



Figure 6.3 Configuration Setup screen

System key	Press this key to setup system parameters. See System key on page 26 .
PLU key	Press this key to configure the PLU database. See PLU key on page 27 .
APP key	Press this key to configure application parameters. See APP key on page 29 .
Back key	Press this key to return to the Supervisor Setup screen.

6.1.1 System key

The following items appear in the System menu. To choose the item for modification, use the up or down arrow keys to move the highlight to the desired item and press the **Enter** key.

Screen Invert	Select this to invert the color scheme of the indicator display. The default scheme is green on a black background. If you choose to turn screen invert On , the screen will change to black text and graphics on a green background.
Zone	NA Enter a zone number representing where this scale is located in your system. This is useful if you have a very large facility and want to communicate with a particular zone of the facility for setup or reporting.
DB Location	Choose between Internal or SD card for the location of the database.
PLU Barcode Prefix1-3	Input PLU barcode prefix 1 through 3 using the keypad that appears. Press Enter to accept.
Lot # Barcode Prefix1-3	Input Lot # barcode prefix 1 through 3 using the keypad that appears. Press Enter to accept.
Operator Barcode Prefix1-2	Input Operator barcode prefix 1 through 2 using the keypad that appears. Press Enter to accept.
Next Ticket #	Input the next sequential transaction value.
Next Case #	Input the next sequential Case number.
Next Pallet #	Input the next sequential Pallet number.
Next BOL #	Input the next sequential Bill of Lading number.
Company Name	Input the Company Name.
Address 1-2	Input 2 lines of address for the company.
City	Input the City portion of the address.
State	Input the State name.
Zip Code	Input the Zip Code.
Phone #	Input the phone number.
Contact Name	Input a contact name.

Label Header 1-4	Input up to four label headers.
Label Footer 1-4	Input up to four label footers.

6.1.2 PLU key

When you press the **PLU** key the following keys appear. Press the desired key to access that item.

BASIC	This key lets you enable or disable basic database fields. See the list under BASIC key on page 27 .
Extend	This key lets you enable or disable a series of UDF (user defined fields) for the database. See the list under Extend key on page 28 .
ACCUM	This key lets you enable or disable a series of fields for the database dealing with the accumulator function. See the list under ACCUM key on page 28 .
CHECK	This key lets you configure the PLU checkweighing parameters. See explanations under CHECK key on page 28 .
BACK	This key returns the display to the previous menu screen.

BASIC key

This accesses a list of PLU fields you can choose to enable or disable. Items enabled here will appear in the database during PLU Setup. See [DBASE key on page 30](#).

Description 1-3	Enable or disable up to three fields for describing the PLU.
Local Tare	Enable or disable a local tare field in the database.
Scale Tare 2-5	Enable or disable a digital tare field in the database.
Piece Weight	Enable or disable a piece weight field in the database.
Piece Weight Variance	Not used at this time.
Piece Weight Uncertainty	Not used at this time.
Units of Measure	Enable or disable a unit of measure field in the database.
Resample Timer	Enable or disable a timer which trigger quality assurance messaging reminding the user to take required sampling. When the message appears, press and hard key to reset the message timer and remove the message from the screen.
Upc	Enable or disable UPC number field. Ideal for printing if the PLU is a different number than the UPC.

Name

Enable or disable Name. Ideal for printing if the Name is a different number than the Description field.

Extend key

This accesses an extended list of 10 alpha fields to define and 10 prompts, one for each field. It also has 10 numeric fields and prompts you can define. A UDF is a User Defined Field you can create.

These can be used to hold other principal data that can be stored in the PLU or can be used by a custom application.

UDF Alpha 1 is used to hold the QA (quality assurance) message so it can be seen in the PLU database, if activated.

ACCUM key

This accesses the following list of accumulator related functions you can turn **On** or **Off**:

Accumulator Net	If on, this will be shown in the database.
Accumulator Counts	If off, no accumulation shown in database or on screen.
Transactions	If off, no transaction shown in database or on screen.
Inventory Location	If off, no location shown in database or on screen.
Case Counting	Not applicable in this application. May be used for custom applications.
Pallet Counting	Not applicable in this application. May be used for custom applications.
Pack Size	Not applicable in this application. May be used for custom applications.
Average Run Weight	Not applicable in this application. May be used for custom applications.
Average Run Count	Not applicable in this application. May be used for custom applications.
Max. Run Weight	Not applicable in this application. May be used for custom applications.
Min. Run Weight	Not applicable in this application. May be used for custom applications.

CHECK key

This accesses the following list of checkweighing related functions you can turn **On** or **Off** in a PLU:

Target Weight	If on, this will be shown in the database.
Target Count	If on, this will be shown in the database.

Checkweigh Count	If on, this will be shown in the database.
Max Point	If on, this will be shown in the database.
Min Point	If on, this will be shown in the database.
Target High Limit	If on, this will be shown in the database.
Target Low Limit	If on, this will be shown in the database.

6.1.3 APP key

When you press the **APP** key the **App Configuration** list appears. Highlight the desired item and press **Enter** to access that item. Each item in the list is explained below.

Application Mode	Choose from these checkweighing modes:
Big Wt w/o DB	This shows a large weight reading on the screen with database turned off.
Big Wt w/ DB	This shows a large weight reading on the screen with the database active.
Wt w/P# w/ DB	This shows a weight reading on the screen along with the part number. The database is active in this mode.
Average w/o DB	This uses the Average style of checkweighing without the database.
Average w/ DB	This uses the Average style of checkweighing with the database.
Units key	If on, this key will appear on the startup screen.
Target key	If on, this key will appear on the startup screen.
Select key	If on, this key will appear on the startup screen.
PLU Tare Update	If ON , the user can change the tare value stored in the PLU without entering the supervisor menu. If OFF the value can't be changed except in the supervisor menu.
Ave. Buffer Size	Set the number of weighments used in the Averaging version of checkweighing. Default is 100. Choices are from 5 to 1000.
PLU CheckWgh Update	If ON , the user can change the over/under/accept values stored in the PLU without entering the supervisor menu. If OFF the values can't be changed except in the supervisor menu.

Auto Tare	Enable this and after each weighment, when the weight stabilizes inside the gross zero band, the weight will be tared from the scale automatically. Used mostly for reverse checkweighing. See Reverse checkweighing on page 15 .
Auto Print	Enable or disable automatic printing when weight reaches or exceeds a predetermined weight and scale motion stops.
Packrun Print	Choose to print reports when a packrun is complete that has fallen only in the Accept range or if it was entirely within the Under/Accept/Over range.
Checkweigh Mode	Choose Limits or Tolerance mode. Tolerance mode uses a target weight with tolerances to define acceptable weights. Limits mode lets you define the limits of your acceptable range. See Tolerance mode on page 14 and Limits mode on page 15 for more information.

6.2 DBASE key

The screen in [Figure 6.4](#) appears when you press the **DBASE** key.

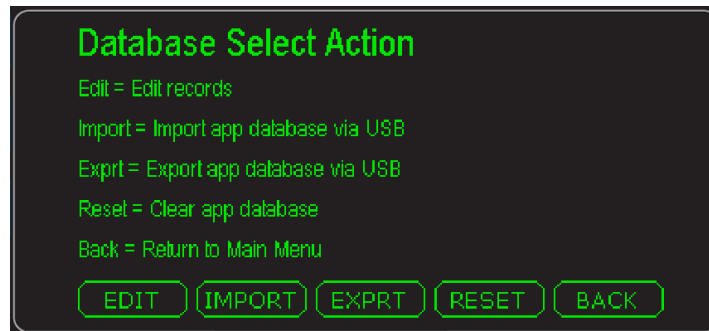


Figure 6.4 Database Select Action screen

This menu allows you to populate the available fields in the database. The default field selection can be added to or changed using the PLU configuration. See [PLU key on page 27](#).

Each item is described below.

6.2.1 EDIT key

When you select the **EDIT** key the screen in [Figure 6.5](#) appears.

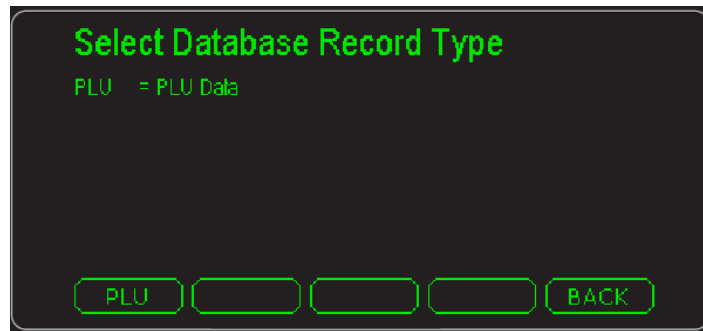


Figure 6.5 Database Select Record Type screen

Choose which database you wish to edit. Choose the **PLU** key to edit, add or delete a PLU. See [PLU ADD softkey on page 32](#) for more information.

6.2.2 IMPORT key

Use this to choose to import a database from a USB stick or via FTP. An **Abort** choice is also available to abort the action.

6.2.3 EXPORT key

Use this to choose to export a database to a USB stick or via FTP. An **Abort** choice is also available to abort the action.

6.2.4 RESET key

Resets the entire supervisor to defaults and clears the PLU database.

6.3 Totals key

Use this to enable or disable these two items or to select the report format:

Print Totals Enabled Enable this to print totals when you press and hold the **PRINT** key.

Clear Totals Enabled Enable this to clear totals when you press and hold the **PRINT** key.

Report Format Use this to key in a print format number (1-40).

6.4 Battery key

Press this to choose the following:

Battery type Choices are **NONE**, **BSQ** and **OTHER**.

Shutdown Timer Key in the number of minutes of inactivity which will cause the indicator to shutdown.

6.5 PLU setup

When you access the PLU database, see [EDIT key on page 31](#), you see the **PLU Setup** screen:



In this screen you have **EDIT**, **ADD** and **DELETE** softkeys. Each is explained below. The **ADD** softkey will be explained first since you need to create a PLU before you can edit or delete it.

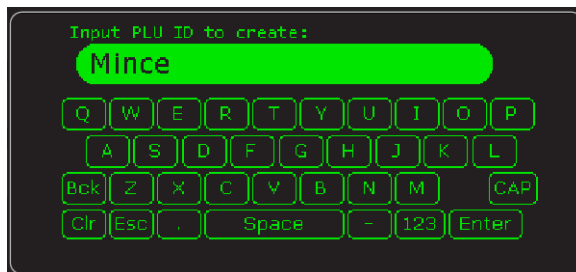
6.5.1 PLU ADD softkey

Use this softkey to create or add a new PLU to the database.

1. Press the **ADD** softkey in the screen shown below:



An alphanumeric entry screen appears.



- In this example we'll use **Mince** as the PLU name. You can key in any alphanumeric characters you want as the name up to 40 characters long. Key in the PLU name and press the **Enter** key ...

The following is displayed:

PLU Edit: Mince

BASIC = Basic PLU values
 EXTEND = Extended PLU values
 ACCUM = PLU associated accumulator values
 CHECK = PLU associated checkweigh values
 BACK = Return to Setup Menu

[BASIC] [Extend] [ACCUM] [CHECK] [BACK]

The softkeys that appear are:

BASIC Press this to access this screen:

Field	Value
Description 1	:
Unit of Measure	: kg
Local Tare	: 0
Resample Timer	: Never

PLU #: Mince

[Up] [Down] [Left] [Filter] [Esc]

Highlight the item you want to define and press the **Enter** (↵) softkey. Type in a value or select from the list that appears and press the **Enter** key to accept. The **Resample Timer** item lets you set the amount of elapsed time between requests for quality assurance checks. See [QA messaging on page 18](#).

When you've finished with all the choices, press the **Esc** softkey to return to the **PLU Edit** screen.

Extend Press this to access this screen:

Field	Value
Check weight of 5 trays	: Take QA Sample

PLU #: Mince

[Up] [Down] [Left] [Filter] [Esc]

Press the **Enter** key to edit the message for the QA statement. Key in the new message and press **Enter**.

Press the **Esc** softkey to return to the **PLU Edit** screen.

ACCUM Press this to access this screen:

Accumulator Field	Value
Net Total	: 0.9956 kg
Transaction Count	: 2
Inventory Location	:
Packrun Size	: 0

PLU #: Mince

The first two items on the screen are running totals of the Net weights of items in this PLU and the number of transactions for this PLU.

The **Inventory Location** is a alphanumeric field you can use to enter a stock location for this PLU item.

Select **Packrun Size** to set the number of items in a packrun for this PLU. You can clear this amount using this screen, if desired. This item can't be changed from the **Target** key screen unless you've enabled the PLU Tare Update on page [29](#).

CHECK Press this key to access this screen:

Checkweigh Field	Value
Max Point(Tol)	: 0.0005 kg
High Tol	: 0.0100 kg
Target Weight	: 1.0000 kg
Low Tol	: 0.0100 kg
Min Point(Tol)	: 0.0005 kg

PLU #: Mince

Highlight the item you want to configure for this PLUs checkweighing values, press **Enter**, key in the value and press **Enter** to accept. Press **Esc** to return to the **PLU Edit** screen.

Exit the Supervisor menu when finished. See [Escaping or exiting from a menu on page 12](#).

BACK Press this to return to the previous screen.

6.5.2 PLU EDIT softkey

Use this softkey to access an existing PLU and change the settings within it.

1. Press the **EDIT** softkey in the screen shown below:



An alphanumeric entry screen appears.



2. Key in the PLU name and press the **Enter** key. The following screen appears:



This lets you perform the same basic functions explained in [PLU ADD softkey on page 32](#). Follow those steps to make changes to the PLU you selected.

6.5.3 PLU DELETE softkey

Press this softkey to delete a PLU. Key in the name of the PLU and press **Enter**. A confirmation screen appears:



Highlight **Yes** to delete the PLU or **No** if you have changed your mind.

7 Print formats

Below are examples of the print formats available by default. Any number of new formats can be created for special applications. See the Service Manual.

PF #1 - Gross, Tare, Net w/Units

```

Gross  0.479 lb
Tare   0.453 lb
Net    0.026 lb

```

PF #2 - Accumulate Format

```

PLU #          1
Trans #        3
Gross         5.00 kg
Tare          1.00 kg
Net           4.00 kg

```

PF #3 - Displayed Weight With Status

```

G      6.00 kg O

```

PF #5 - Remote Display 1

```

G      6.00 kg

```

PF #7 - Remote Display 2

```

6.00 kg G

```

PPF #11 - Pack item

```
~~~~~  
Pack Run Item  
6.00 kg  
Item      0 of  0  
State  
~~~~~
```

PF #12 - Pack complete

```
~~~~~  
Packrun Complete  
Total Wt =  0.0000 kg  
Items =      0  
AVG =  0.0000  
MIN =  0.0000  
MAX =  0.0000  
~~~~~
```

PF #13 - Stats Info

```
~~~~~  
Average=  0.0000 kg  
Max Wt =  0.0000 kg  
Min Wt =  0.0000 kg  
Std Dev =  0.0000  
  
X-Bar =  0.0000 kg  
  
X-Bar R =  0.0000 kg  
~~~~~
```

PF #1PF #20 - Zebra GTN + Time

```
02:23  12-8-17  
  
G      6.55 kg  
T           1 kg  
N      4.55 kg
```

PF #21 - Zebra GTN + Time + User

```
02:23  12-8-16
ID              10
G      6.55 kg
T      1 kg
N      4.55 kg
```

PF #22 - Zebra GTN Time and Date User

```
02:23  12-8-15
ID              10
G      2242 lb
T      0 lb
N      2242 lb
```

PF #23 - Time, Date, GTN

```
~~~~~
09:11 am      04-23-2018
Gross      3000 kg
Net        2000 kg
Tare       1000 kg
~~~~~
```

PF #24 - Band with Net Weight

OVER : 0.378 kg

PF #25 - PLU + Band + Net

123
Over: 5.655 kg

PF #26 - Time and Date, PLU + Band + Net Wt

09:11 am 04-23-2018
123
Over: 5.655 kg

PF #27 - Net Weight With Band

5.655 kg Over

PF #28 - Standard Deviation

Tol Hi = 0.550 kg
Tol Lo = 0.240 kg
Target = 16.000 kg
Over = 5
Under = 4
#Accept = 5
Mean = 16.504 kg
Max Wt = 17.504 kg
Min Wt = 15.003 kg
Std Dev = 1.370

PF #29 - X-Bar Trend

```

Tol Hi =      3.100 kg
Tol Lo =      2.900 kg
Target =      3.000 kg
Ave Wt =      3.526 kg
Range =       1.200 kg

```

PF #32 - Analog output

```

31.5000

```


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