

Avery Weigh-Tronix

ZK840

Grading 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



***Q R #X VHU #VHUY IFHDE OH \$SDUWV 1#JHIHU #WR #I X DOLL IHG #VHUY IF H#
SHUVR Q Q HO #I R U #VHUY IF H 1***

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

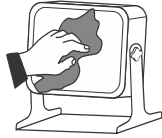


IMPORTANT: *This equipment must be routinely checked for proper operation and calibration. Application and usage will determine the frequency of calibration required for safe operation.*

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 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 Grading application. See Chapter 3 for information about the Grading 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.

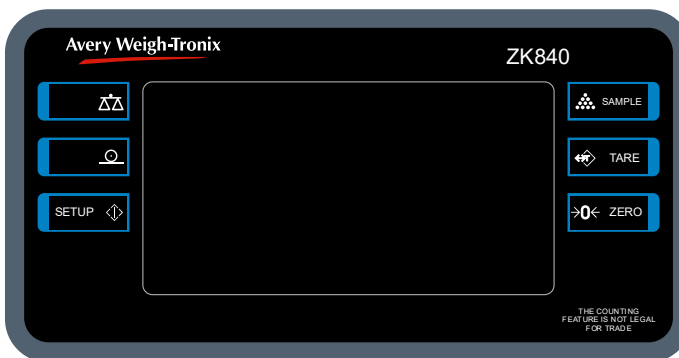








Figure 2.1 ZK840 front panel



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.

	The SAMPLE key accesses a screen showing the grade points for the active PLU.
	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.
	Press the ZERO key to zero the display.
	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 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**.



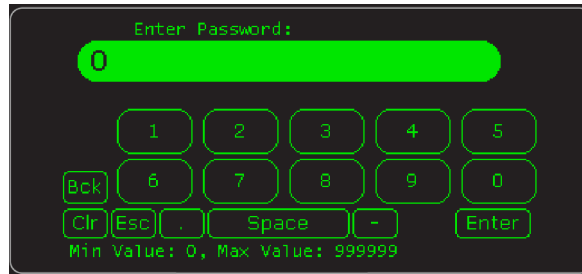
Appears when a Preset Tare is active.

2.3 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.

2.4 Menu access and navigation

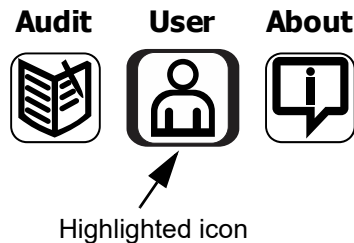
The menus used to configure the ZK840 are accessed with passwords. Press and hold the **SETUP** key to access the password entry screen, shown below.



In general, a menu is made up of a group of top level items, sub levels under each of those and lists of items to view or configure. There are variations on this theme. Sometimes there may be no sub level or there maybe two sub levels before you get to a list of items to set.

You will see on-screen lists with instructions on how to choose and set an item in each menu list. On-screen prompts 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 arrow to move the highlight and then press the Enter key to accept the choice. Press **Esc** to return to the previous screen without making a change.

The main menu is made up of the User, About and Audit menus. See Chapter 4 for complete information.

2.4.1 Escaping or exiting from a menu

In any menu you will have either **UP** or **ESC** keys listed on-screen.

If **ESC** is listed use it until it disappears then use the **UP** key 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.

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

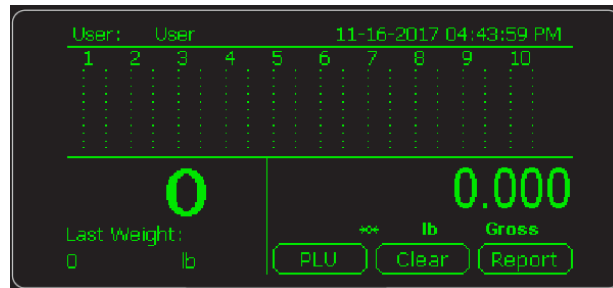
If you need to calibrate the touchscreen, press and hold the top key on the left side of the ZK840 on powerup and the touch calibration screen appears. Follow the prompts to calibrate the screen.

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 with the Grading application active, you will see a start screen similar to the one below.



With the Grading application active the screen shows the user name, the time and date, empty bar graphs for each grade (1-10), the weight on the scale, the last weight and three soft keys.

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.

Below are short descriptions of three softkeys' functions.

PLU key	Use this key to recall a PLU from the database.
Clear key	Use this key when an error occurs so you can remove the last weight and grading.
Report key	Use this key to view the accumulated weights and number of weighments for the current PLU.

3.2 Printing

Press the **PRINT** key when there is no scale motion. What is printed is typically controlled by the custom program.

3.2.1 Grading application

Grading is normally used to quickly sort product into different weight bands. This can be used in processing plants to maximize product usage and reduce waste.

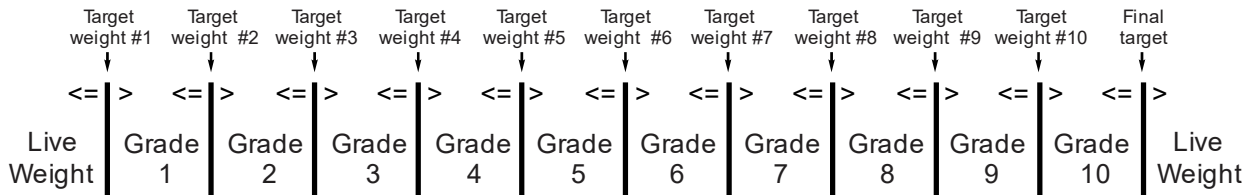
This application allows you to track the number of items that have been weighed in each grade. You can also set a maximum number of items for each grade (for box filling, etc.). The vertical bar graphs will track the progress of each grade as more items are weighed. When the bar graph is full, you have reached your desired total.

Using the application

Following is an example of how to use the grading application. Grading is set up by creating PLUs in the Supervisor menu. See [PLU key on page 26](#). The PLU used in this example is set up with chicken thigh target weights of:

- Target #1 = 0.5 lbs
- Target #2 = 0.6 lbs
- Target #3 = 0.7 lbs
- Target #4 = 0.8 lbs
- Target #5 = 0.9 lbs
- Target #6 = 1.0 lbs
- Target #7 = 1.1 lbs
- Target #8 = 1.2 lbs
- Target #9 = 1.3 lbs
- Target #10 = 1.4 lbs
- Final Target = 1.5 lbs

Weight grades are defined as shown below. A weight is judged to be in Grade 1 when it is greater than Target weight #1 but less than or equal to Target weight #2.

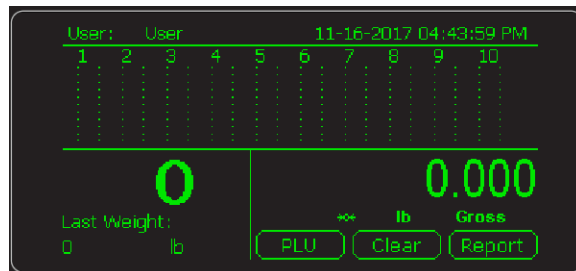


When the PLU is created, it can have a limit to the number of weighments for any Grade. This makes filling of cartons or boxes with items of the same weight easy. See [Creating a PLU entry on page 29](#).

You can perform positive or negative grading. Positive grading involves adding items to the scale to be graded. See [Positive Grading process on page 14](#). Negative grading involves loading the scale and grading the items that are removed. See [Negative grading process on page 16](#).

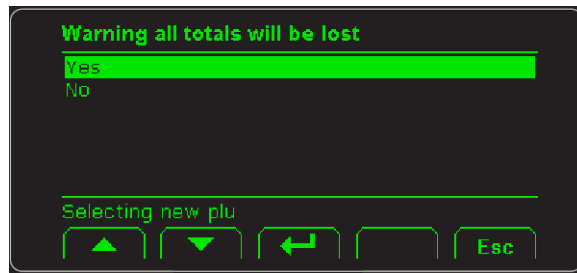
Positive Grading process

1. Power up the ZK840. The start up screen is displayed:



- Press the **PLU** key ...

This warning screen appears:



This lets you know that any previous active PLU's totals will be lost.

- Select **Yes** to continue or **No** to return to the startup screen and press the **Enter** \leftarrow key ...

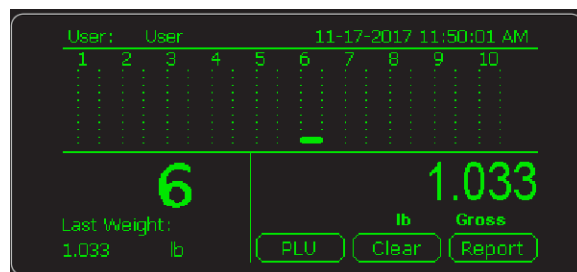
Character entry screen, shown below, is displayed:



- Type in the PLU ID you want and press the **Enter** key ...

The startup screen appears, ready to begin grading using the selected PLU.

- Place the item on the scale ...



The weight of the item is shown on the right side and as **Last Weight:** in the lower left corner of the display. The grade (**6**, in this example) is also shown on the left. The bar graph for Grade 6 shows a bar starting to appear. As more grade 6 items are weighed, this bar will continue to grow until the max (which is set in the PLU database) is reached.



Each grade can have a different maximum number.

When the max is reached a message is briefly flashed saying **Grade 6 Full** and the main screen reappears with the Grade 6 bar graph empty. If configured you can automatically print a label containing product description, quantity and net weight once a weight grade is full.

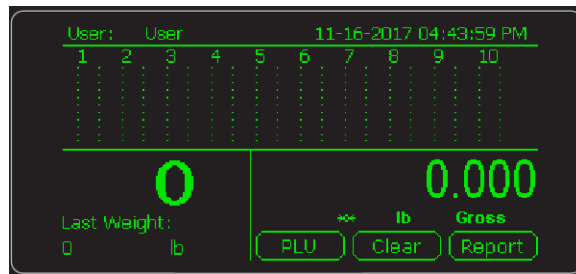
6. Continue weighing and filling the various grade boxes until the **Full** message is displayed for each grade. Repeat until you are done grading items.
7. Press the **Report** key to see the total number of items weighed in each Grade and also the total weight accumulated in each Grade.
8. Press the **PRINT** key to print the totals report. Press and hold the **PRINT** key to clear all the grade totals seen in the report.



If you pick another PLU or power off the scale, the grading totals for the current PLU will be lost.

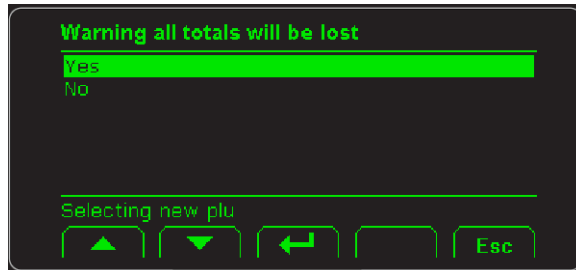
Negative grading process

1. Power up the ZK840. The start up screen is displayed:



2. Press the **PLU** key ...

This warning screen appears:



This lets you know that any previous active PLU's totals will be lost.

3. Select **Yes** to continue or **No** to return to the startup screen and press the **Enter** ↵ key ...

Character entry screen, shown below, is displayed:



4. Type in the PLU ID you want and press the **Enter** key ...

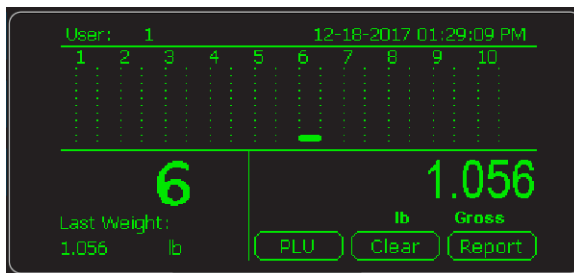
The startup screen appears, ready to begin grading using the selected PLU.

5. In negative grading you place a full container on the scale and press the **TARE** key ...

The display shows a net weight of 0.00

6. Remove one of the items ...

The weight of the item is briefly shown as the live weight on the right side of the display. After the grade is shown, the live weight is tared and the weight of this last item is shown as **Last Weight**: in the lower left corner of the display. The bar graph for Grade 6, in this example, shows a bar starting to appear.



7. Continue removing items ...

As more items are weighed the bar for that grade will continue to grow until the max (which is set in the PLU database) is reached.



Each grade can have a different maximum number.

In the above example, when this happens a message is briefly flashed saying **Grade 6 Full** and the main screen reappears with the Grade 6 bar graph empty. If configured you can automatically print a label containing product description, quantity and net weight once a grade is full. Below is an example of a printout:

```

    ~~~~~
    Pack Grade      6
    Total Weight   25.5
    Total Units    10
    ~~~~~
  
```

- When the container on the scale is empty you can put a new, full container on the scale, press **TARE** and keep grading the items. At any time you can press the **Report** key to see the total number of items weighed in each Grade and also the total weight accumulated in each Grade. You can also press the **PRINT** key to print the totals report. Press and hold the **PRINT** key to clear all the grade totals seen in the report.



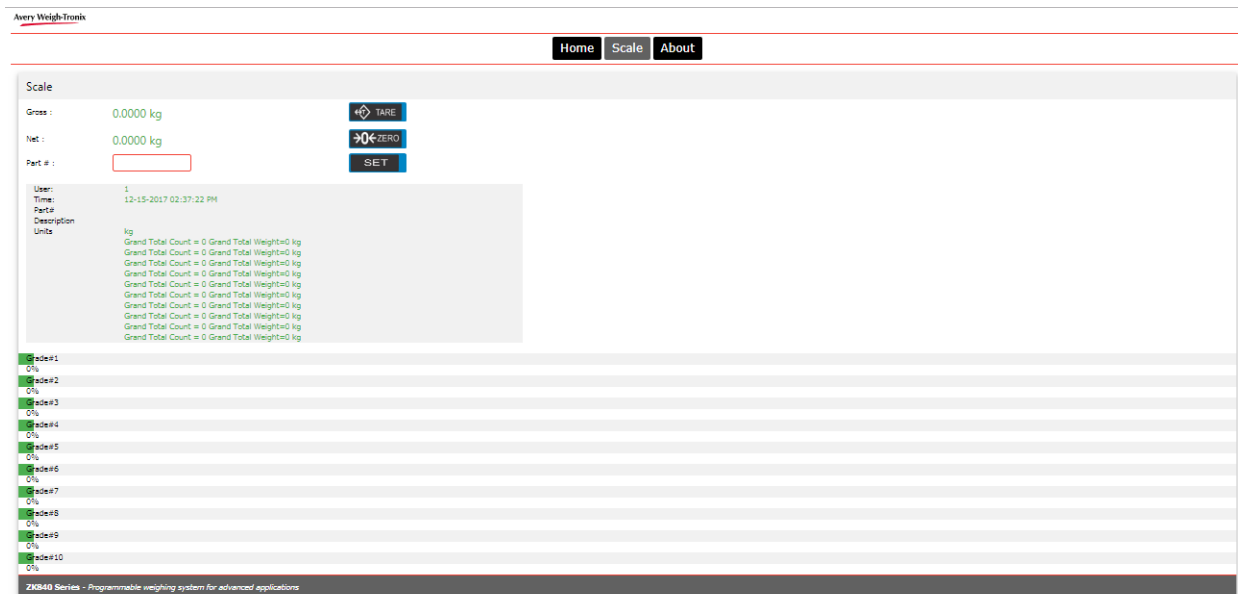
If you pick another PLU or power off the scale, the grading totals for the current PLU will be lost.

To view all the grading points for the active PLU, press the **SAMPLE** key.

3.3 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.



4 Menus

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.
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.

4.1 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](#).

4.2 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.

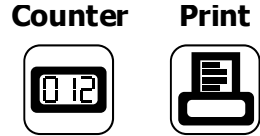
Use the **Left** and **Right** keys to highlight the menu item you want to access and press the **ENTER** key.

- 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](#).

4.3 Audit menu

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



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](#).

5 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.

5.1 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.

5.2 '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.

5.3 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.

5.4 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.

6 Supervisor menu

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

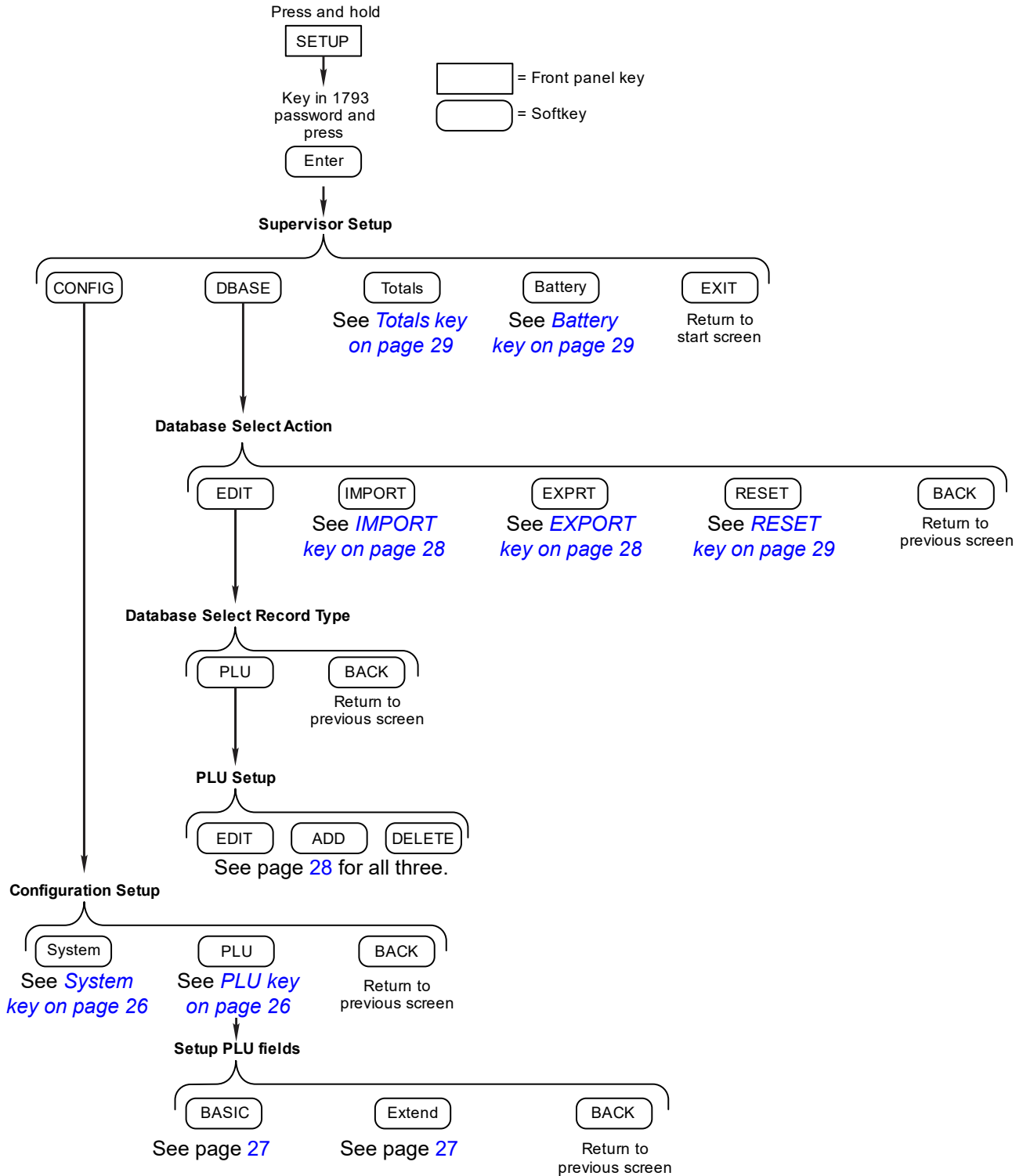


Figure 6.1 Supervisor menu

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 28](#).
- Totals** This key lets you choose a report format and to print totals or clear them. See [Totals key on page 29](#).
- Battery** Press this to monitor battery activity or to set a shut down timer. See [Battery key on page 29](#).

6.1 CONFIG key

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

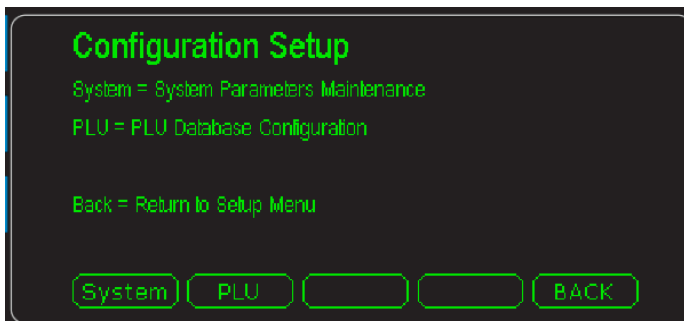


Figure 6.3 Configuration Setup screen

- 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 26](#).
- Back key** Press this key to return to the Setup menu 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 27.
- 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 28](#).

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 will require a resampling of parts for this PLU.
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.
Last Sample Time	Enable or disable a field showing the last sample time.

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. You can use these fields for creating names that will appear on the labels to identify each grade.

In this application the UDFs are used to label the grades for printing purposes.

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

6.2 DBASE key

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

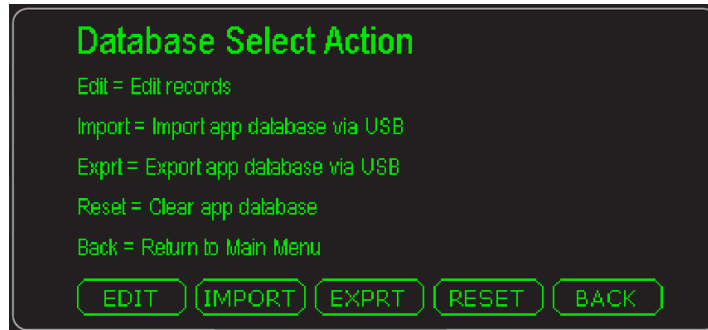


Figure 6.4 Database Select Action screen

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 26](#).

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 Select Database Record Type screen

Choose the **PLU** key to edit, add or delete a PLU. See [Creating a PLU entry on page 29](#).

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 Creating a PLU entry

To create a PLU you must configure or define its contents by enabling fields which will appear in the database. See [PLU key on page 26](#). Once the PLU fields have been enabled you can begin to create PLUs

- After configuring the PLUs, from the *Supervisor Setup* screen, press this key sequence to access the database and start adding new PLUs:
DBASE>EDIT>PLU>ADD

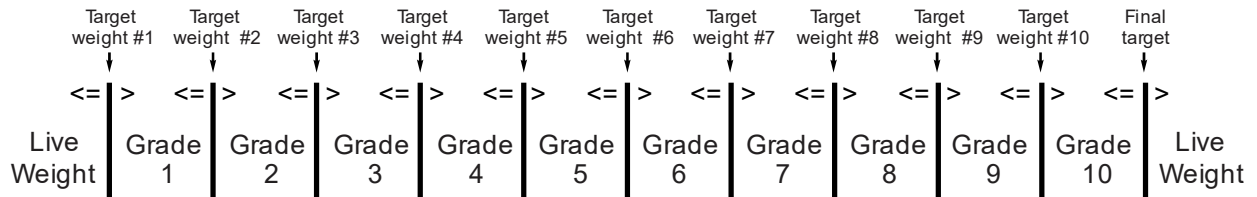
The following screen is displayed:



- Key in an ID for this PLU and press the **Enter** key. Below is an example of a screen you will see:



- Press **BASIC** and enter values for the items in the list that appears. By default they are **Description 1** and **Unit of Measure**. When finished press **Extend** and create a Grade Name for all ten grades listed on the screen.
- Next press **GradeT** and enter the weights that define each grade (1-11). A grade is defined as the weight range starting at one target weight ending at the next. If you only have five grades you must enter zero for Target weights 6-10 and the Final Target is equal to the highest weight for Grade 5. See the illustration below:



- Next press **GradeC** to enter the number of items you want in each grade. This is handy for box filling with like-weighting items.
- Repeat the process of creating a PLU for each of your items.
- To edit an existing PLU, see [EDIT key on page 28](#).

PF #8 - Grading Pack Complete

```
Pack Grade      0
Total Weight    000000
Total Units     0
```

PF #9 - Grading Pack Item

```
PLU  0  PACK ITEM 0 0 0
Grades 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0
```

PF #14 - Grading Item

```
PLU  0
PACK ITEM 0 0 0
Description  0
```

PF #15 - Grading Totals Report Header

```
Grading Report Header
04:01 pm 12-14-17
0
```

PF #16 - Grading Totals Report Body

```
0 Count  0 Net Total  0
```

PF #17 - Grading Totals Report Footer

```
Grading Footer
```

PF #18 - Grading Grand Total

```
~~~~~  
Grand Total Report  
Grade 0Total 0 0Packs 0  
~~~~~
```

PF #32 - Analog output

```
~~~~~  
105.000  
~~~~~
```


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