

Avery Weigh-Tronix

ZK840

Picklist 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 IFH #
SHUVR Q QHO #IR U #VHUY IFH 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

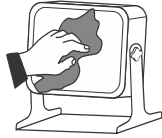


IMPORTANT: *This equipment must be routinely checked for proper operation and calibration. Application and usage will determine the frequency of calibration required for safe operation.*

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

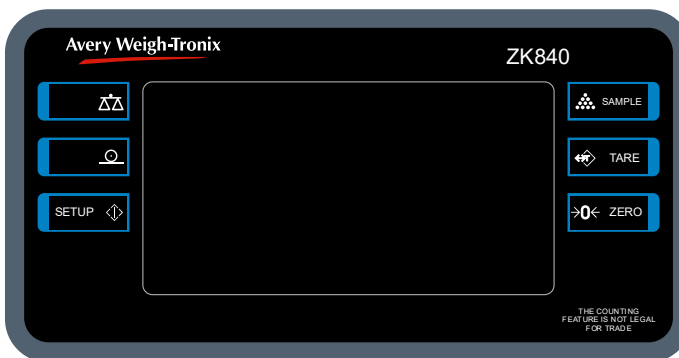








Figure 2.1 ZK840 front panel



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 can be used to perform custom application functions.
	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 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 **PRINT** (O) 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.

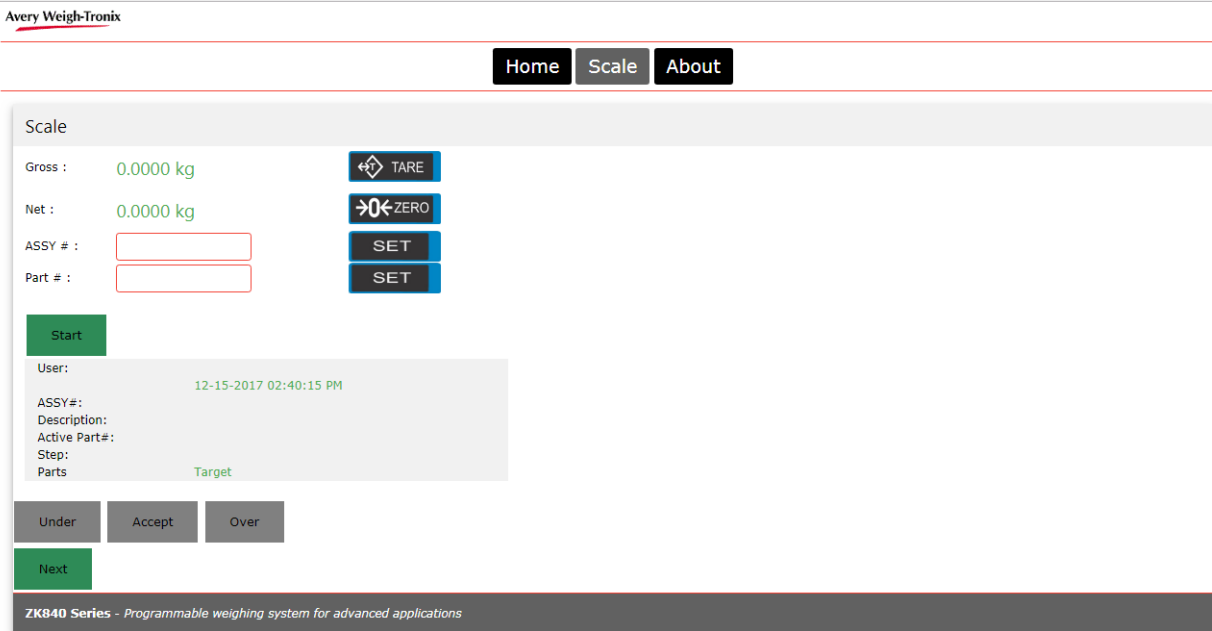
2.6 Touch screen calibration

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.



2.8 Menu access and navigation

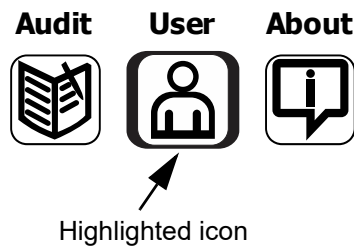
The menus used to configure the ZK840 are accessed with passwords. See [User menu on page 26](#) and [Supervisor menu on page 30](#) for passwords and information on the menus. This section is to introduce you to the general information about menus.

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

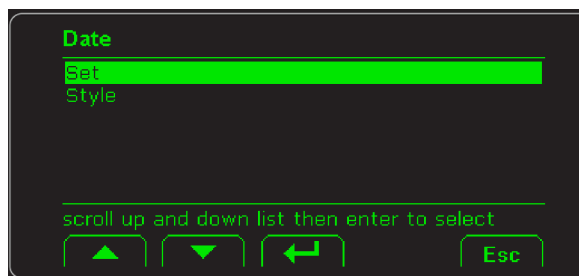


Enter the password for the menu you want and press the **Enter** key. On-screen prompts often guide you as you move through the menus.

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 start screen similar to the one below.



With the Picklist application active, the screen shows the user name and time and date in the top line. Below that is the current weight. Below that are the Assembly number and description 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.

- | | |
|-------------------|--|
| RECALL key | Use this key to recall an Assembly number 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 . |

3.2 Printing

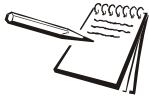
Press the **PRINT** key when there is no scale motion. What is printed is typically controlled by the custom program. See [Print and barcode formats on page 38](#) to see the available default print formats.

3.3 Picklist application

3.3.1 Application overview

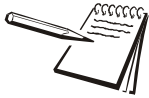
This application leads through picking a list of items identified by PLU (Piece Look Up) numbers into an assembly. By using weight (or counts), you verify that all items in an assembly have been added to the package.

The PLU and the Assembly numbers are stored in the internal database memory. The items in the database are created and managed using the Supervisor menu, password 1793. See [Creating a PLU entry on page 16](#) and [Creating an Assembly on page 19](#) for directions on these processes.



The internal database can hold approximately 1000 Assemblies/PLUs. The microSD card can hold up to 3500 Assemblies/PLUs.

There are two ways you can perform the picking and packing of an assembly. You can pick items and place them in a box on the scale or have the box sitting next to the scale. See [Assembly process choices on page 23](#) for instructions on how to enable the Auto-tare function which is needed if you're filling the box on the scale.



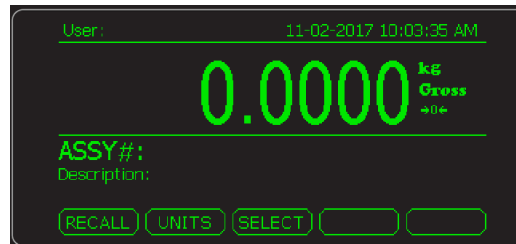
If the PLU has a piece weight it is a counted item, otherwise it is a weight-based item. For a hand-add item, set the target value and tolerances to 0.

A hand-add item cannot be the first PLU in an assembly.

3.3.2 Performing a picklist operation

Assume there is an assembly and its associated PLUs already in the database for assembling the parts for a three drawer cabinet. The package consists of two sides, a top, bottom, back, three drawers, a hardware pack, a hex key and a set of instructions. Each of these items are a separate PLU item.

1. To select an assembly press the **RECALL** softkey shown on the powerup screen below:



The following screen is displayed:



Enter softkey

2. Type in the Assembly ID you want to assemble and press the **Enter** softkey ...

If the entry is wrong you will see the message **Assembly Not Found** and then the screen returns to startup screen.

If the assembly exists in the database, the indicator will show a screen similar to the one shown below with the **ASSY#** and **Description** shown below the weight display:



3. Begin the assembly by pressing the **Start** softkey ...

This will initiate a print out on the printer and the active assembly # is shown on the top line as shown below:



The current active Assembly and the bar graph are displayed.

Also shown is the list of PLU parts that need to be fulfilled. The bargraph move for each highlighted part as they are added to the scale. Each part can be weight or count based. You can also have a hand-add item such as a business card which must have target and tolerances set to 0.



A hand-add item cannot be the first PLU in an assembly.

Each step can have validation features turned on to reduce operator error. See [Supervisor menu on page 30](#).

4. Place the item on the scale. If acceptable the bargraph will be in the middle range. Press the **NEXT** key to step to the next item in the list. At this point an item string is sent to the report printer.

When all PLU items have been completed an additional complete string is sent to the report printer. If you press and hold the **PRINT** key, the sub-total transactions will be printed and cleared but the grand total transactions will increment by one every time this assembly is made. The grand total can only be cleared in the Supervisor menu.

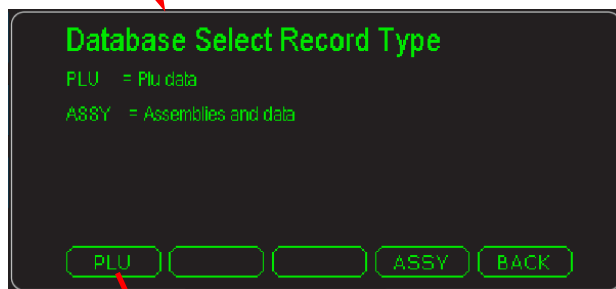
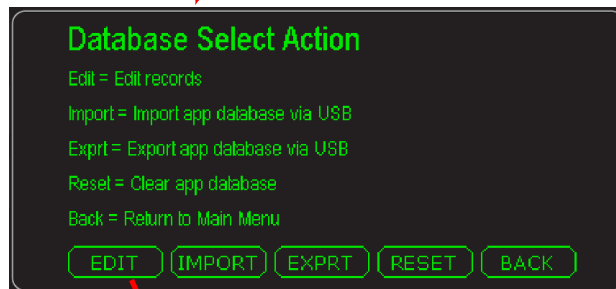
3.4 Creating a PLU entry

Creating a PLU consists of two parts:

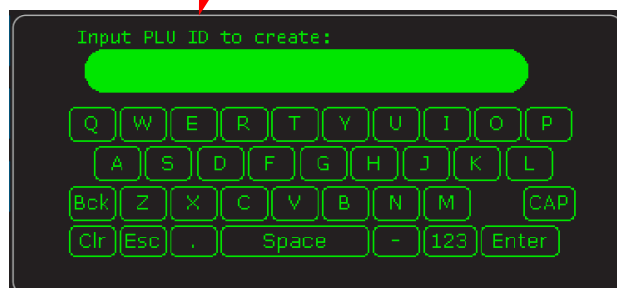
- Define everything that will be in a PLU by configuring the database. This is done when the database is created and is explained in the [Supervisor menu on page 30](#).
 - To create a new PLU entry in the database you follow the steps below.
5. Access the Supervisor menu using password 1793 and the password entry procedure explained in [Menu access and navigation on page 12](#).

6. Press this key sequence to access the database and start adding new PLUs:
DBASE>EDIT>PLU>ADD

These are the screens you will see in order as you progress through the key presses listed above:



Press the **EDIT** softkey to edit an existing PLU.



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



8. Press **BASIC** and enter values for the items in the list that appears. By default they are **Description 1**, **Unit of Measure** and **Piece Weight**. When finished press the **Esc** key to return to the screen above. Press the **Extend** softkey and fill in the items there and press the **Esc** key to return to the screen above.
9. From the screen in step 7, press the **BACK** softkey and repeat steps 7 and 8 for all the PLUs you need to create.
10. When finished press the **BACK** softkey until you see this screen



11. Press the **ASSY** softkey to move to the next section, *Creating an Assembly*.

3.5 Creating an Assembly

Before creating the assembly, all the PLUs used in the assembly must be entered in the database. See the previous section [Creating a PLU entry on page 16](#).

1. If you are coming from the previous section's step 11, you can press the **ASSY** softkey then the **ADD** softkey and continue.

If you are starting from startup screen, access the Supervisor menu (password 1793) and press this softkey sequence from the *Supervisor Setup* screen:

DBASE>EDIT>ASSY>ADD ...

You will see this screen:



Use this screen to give the assembly a name and description.

2. Select **assembly** and press the **Enter** (↵) softkey ...

A text entry screen appears:



3. Key in an Assembly name and press **Enter**.

The name is saved and the screen returns to the previous one shown in step 1.

4. Select **description** and repeat this process.
5. **Sub transactions** are a temporary total of the number of assemblies completed. This can be cleared when an assembly is completed by pressing and holding the **PRINT** key.

The **grand transactions** are a running total of the number of transactions. This can only be cleared by selecting that item in this screen and entering a 0 value.

6. Press **Esc** when you are finished and you are given a **SAVE/ABORT** choice, shown below:



7. Highlight your choice and press the **Enter (↵)** key ...

The **ASSEMBLY SETUP** screen is displayed, shown below.



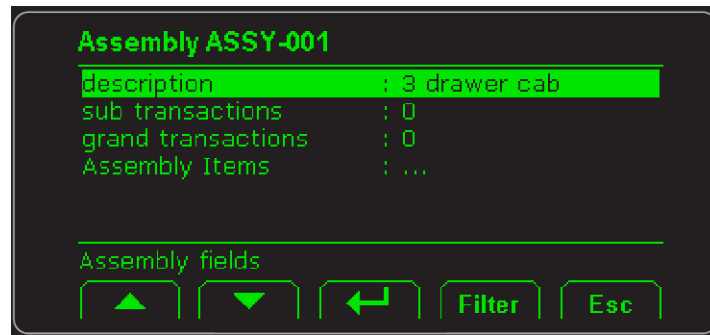
8. Press the **EDIT** key to see a list of the Assemblies in the database, like the example screen shown below:



There is a **Filter** softkey in this screen. If you have a large number of Assemblies, press this key, key in first part of the Assembly's name and press the **Enter** key. Assemblies starting with those characters will be listed and you can highlight the one you want and press the **Enter (↵)** softkey to edit it following the steps below.

9. Select the assembly you want to edit and press the **Enter** (↵) key ...

Following is an example of the screen you will see:



The name of the assembly is shown as well as the sub transaction and grand transaction counts. These are both 0 since this is a new assembly. This is the screen where you pick the PLUs that make up all the parts of the assembly.

10. Highlight **Assembly Items** and press the **Enter** (↵) key ...

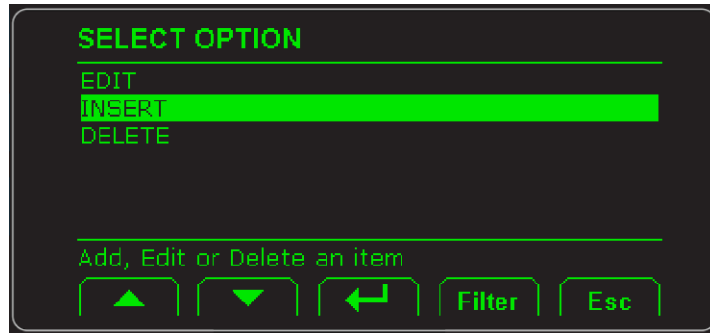
The following is displayed:



Since there are no PLUs entered yet as part of this assembly there is only a *nil* place holder.

11. Press the **Enter** (↵) key ...

The following is displayed:



Edit - Select this to modify data in that assembly step.

Insert - Select this to enter a new PLU item into the current Assembly. If you want a PLU at the end of the assembly process, make sure the last PLU listed in the **Item Step** screen is highlighted before pressing insert. The new PLU will then be listed below that item.

Delete - Select this to delete the highlighted PLU from the assembly.

12. Select **INSERT** to insert a PLU into this assembly and press the **Enter** (↵) softkey ...

The following is displayed:



A hand-add item cannot be the first PLU in an assembly.

13. Highlight **plu id** and press the **Enter** (↵) softkey ...

A text entry screen appears. This is where you bring the PLUs that exist in the database into your assembly.

14. Key in a PLU ID for the first item you want in the assembly and press the **Enter** key ...

The *Assembly Target Values* screen appears with the **plu id** populated.

15. The three values available on this screen allow you to do several things. Ask yourself if the part is weight based, a counted part or a hand-add item.

Weight based item

If it is weight based you need to set the target weight, the low tolerance and the high tolerance.

Counted item

If it is a counted item, there must be a piece weight assigned to the PLU. See step 8 on page 18.



If you need a specific number of parts you can choose that number as the target and set both high and low tolerances to 0. This way only the right number will light up the accept area of the bar graph.

Hand-add item

If it is a hand-add item there can be no piece weight and the target, low tol and high tol values must all be set to 0.

16. Repeat adding **Assembly Items** to the Assembly until it is complete. When recalled from the startup screen you can now step through the parts to fulfill the Assembly.

3.5.1 Assembly process choices

You can choose to pack an assembly with the container on the scale or off the scale. There is a setting to choose for the process you want to use. Follow these steps:

Packing with container on or off the scale

1. From the **Supervisor Setup** screen press these keys: **CONFIG>APP**.
2. Scroll to the **Auto Tare** item. If this is **ON** you can pack with the container on the scale. When you place the container on the scale and start the assembly process, the box is auto tared. As each item is placed in the box and you press the **NEXT** key, the weight on the scale is auto tared. This continues until the assembly is complete.

If the **Auto Tare** item is **OFF** you can pack with the container next to the scale. As each item is weighed and placed in the container, the scale is ready for the next item.

3.5.2 Features

There are two validation processes that can ensure that the correct item and the correct weight or count is met before the assembly process can continue. The first is **Verify Plu**, found under [APP key on page 34](#). When enabled you cannot continue with the assembly process until the user has scanned a barcode for this PLU or has entered the PLU number manually.

The second verification ensures the correct weight or count are met before allowing the assembly process to continue. This is explained in **Verify Plu** under [APP key on page 34](#).

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

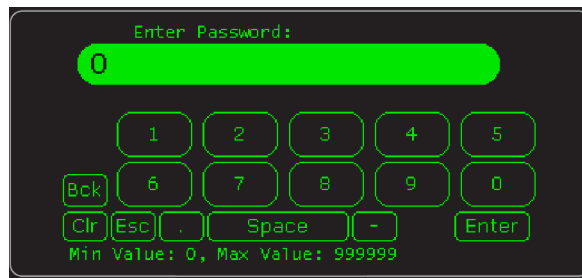
The ZK840 three user accessible menus:

- **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.

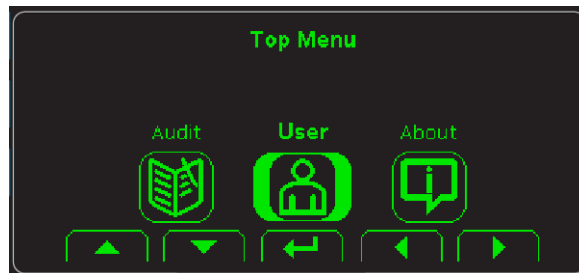
1. Press and hold the **SETUP** key until ...

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

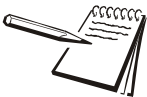


No matter which style you pick, time must always be entered in the 24 hour style. The display of the time will follow the style you pick.

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 **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 Counting application that you can set or enable/disable. Follow the steps below to access the menu items described.

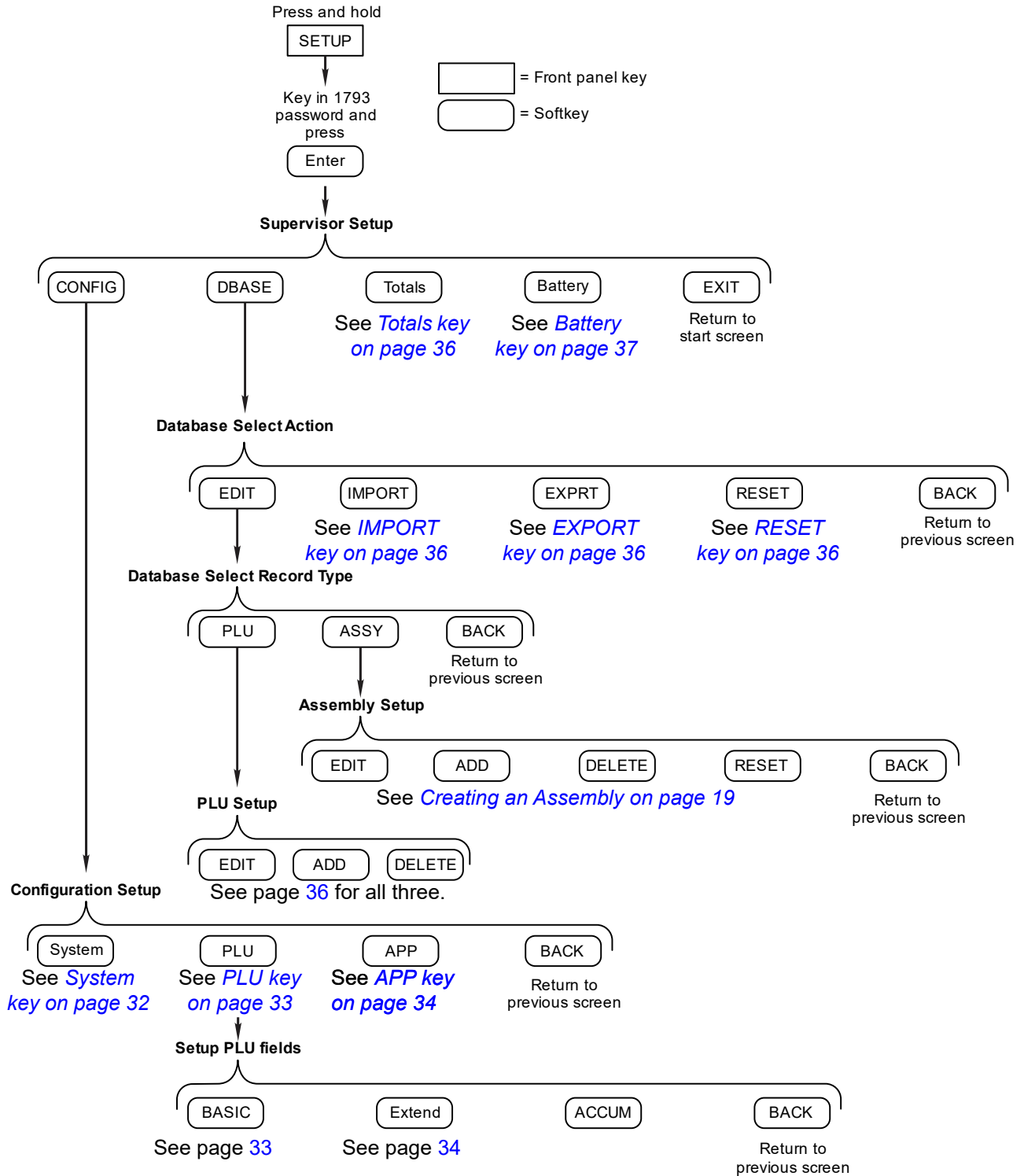


Figure 6.1 Supervisor menu

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 31](#).
- 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 35](#).
- Totals** This key lets you choose a report format and to print totals or clear them. See [Totals key on page 36](#).
- Battery** Press this to monitor battery activity or to set a shut down timer. See [Battery key on page 37](#).

6.1 CONFIG key

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

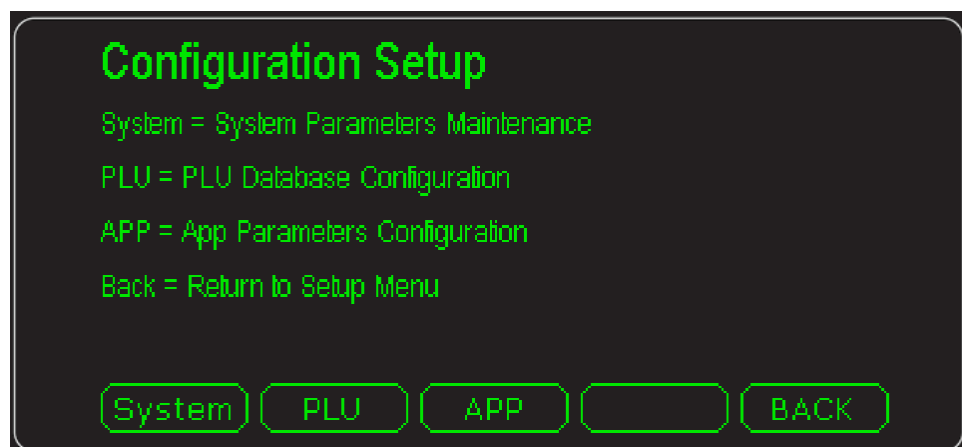


Figure 6.3 Configuration Setup screen

System key	Press this key to setup system parameters. See System key on page 32 .
PLU key	Press this key to configure the PLU database. See PLU key on page 33 .
APP key	Press this key to configure application parameters. See APP key on page 34 .
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 33.
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 34.
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 34.
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 35**.

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 us 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.

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.

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.

Verify Plu	Setting is either true or false. When set to true, as the application steps from one PLU to another the user has to validate they have the correct part by scanning the PLU barcode. If it matches then the user can progress.
Verify Target	Setting is either true or false. When set to true the application will not step on to the next item until the target (weight or count) is within the configured tolerance band.

- Pick Start PrtFmt** This is the print format sent to the configured report printer when the operator starts a picklist. Default format:
#CR#LF "RECIPE PICK LIST START" {A.180.1} #CR#LF
- Pick Item PrtFmt** This is the print format sent to the configured report printer as the operator steps from one fulfilled item to the next. The default format:
"ITEM "{A.182.1} "VALUE" {A.185.1} {A.186.1} #CR #LF
- Pick End PrtFmt** This is the print format sent to the configured report printer when all items in the assembly have been fulfilled. The default format:
#CR #LF "RECIPE END STATUS " {A.189.1} #CR #LF.
- Assembly Totals** Select **ON** to increment the Sub and Grand total counters when an assembly is complete.
- Auto Tare** Setting is either true or false. When set to true, the scale will automatically tare after each item in the assembly has been fulfilled.

6.2 DBASE key

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

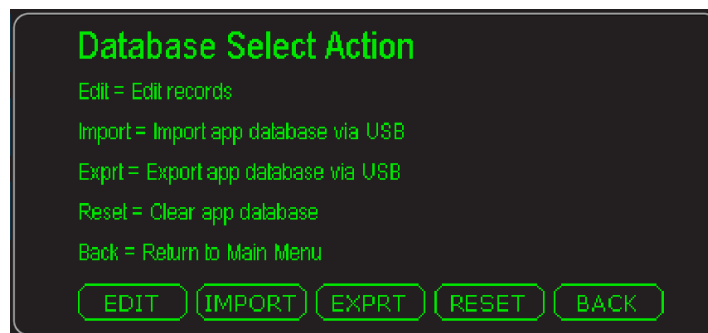


Figure 6.4 Database Select Action screen

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 33](#).

Each item is described below.

6.2.1 EDIT key

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

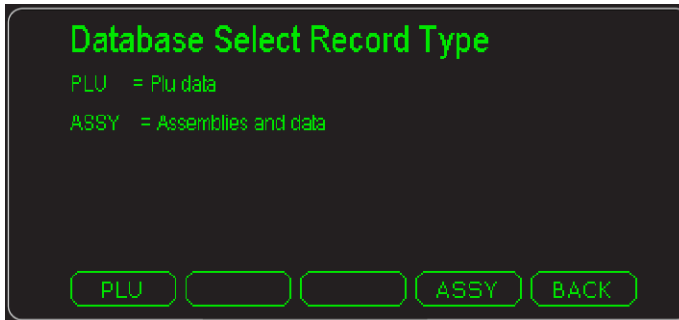


Figure 6.5 Database Select Record Type screen

Choose which database you wish to edit. Choose the **PLU** key to edit, add or delete a PLU. Press the **ASSY** key to edit, add or delete assemblies used in the picklist application.

When creating assemblies you will be pulling in existing PLUs to make up the picklist assembly. All PLUs should be created before trying to create an assembly. See [Creating an Assembly on page 19](#) 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.

7 Print and barcode 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 - Preset Tare Header

```
~~~~~  
List of Preset Tares  
-----  
Tare Name:  Tare Value:  
~~~~~
```

PF #3 - Preset Tare Footer

```
~~~~~  
-----  
Tare List Complete  
~~~~~
```

PF #4 - Preset Tare Body

```
~~~~~  
XXXXXXXX      XXXXXXXX  
~~~~~
```

PF #5 - Broadcast to Remote display

```
~~~~~  
G 00000001b  
~~~~~
```

PF #7 - Broadcast to Remote display 2

```
~~~~~  
000001b G  
~~~~~
```

PF #10 - Report Header

```

RECIPE PICK LIST START

```

PF #11 - Report Item

```

ITEM X VALUE X

```

PF #12 - Report Footer

```

RECIPE END STATUS idle

```

PF #32 - Analog output

```

105.000

```

7.1 Barcodes

PLU's can be recalled/validated by scanning barcodes. A PLU barcode must have a Q as the first character followed by the PLU number, like this example: **Qxxxxxxxx**.

Assemblies can also be recalled by scanning barcodes in the form **Axxxxxxxx**, where **xxxxxxxx** is the Assembly number.

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