PK280SS

Data Terminal with Box Label Program

OPERATOR'S MANUAL

RICE LAKE WEIGHING SYSTEMS
Industrial Solutions on a Global Scale®

ISO 9001 REGISTERED

Rev. 1.0, August 25, 1993

26036

TABLE OF CONTENTS

1. INTRODUCTION

The PK280SS keyboard is a compact programmable data collection terminal used in washdown industrial weighing applications. It is normally interfaced to a digital indicator through the keyboard's serial input port, and to a washdown label printer and optional report printer through its serial output port. The keyboard identifies, classifies, and manipulates data from the digital indicator in various ways before sending it to the attached printers for a label or report.

The PK280SS performs several functions in the system:

- √ It stores up to 250 product definitions in its memory, and links them with tares, tolerance bands, UPC codes, etc.
- √ When weight is within tolerance and stable, the keyboard automatically transmits the label data and sends all information to the printer where a bar code box label is generated.
- √ The keyboard accumulates product totals and box counts for each product ID, and prints a pallet label when appropriate, showing total pallet weight and box count in both bar code and human-readable characters.
- √ The weight of each box is accumulated by product ID and can be printed on a report printer at the end of a run, shift, or day, or alternately that information can be fed to a host computer via an RS-232 serial port.

For most applications, the standard PK280SS Box Label Program will meet all box labeling needs. The standard program can identify and store data for up to 250 products through PLU's (Product Look-Up numbers), along with their linked tares, tolerances, UPC codes, etc. With the expanded memory option, 390 combinations of products and linked data can be stored. Contact your distributor for further customization of the PK280SS Box Label Program for highly specialized applications.

OVERVIEW OF THE MAIN STEPS IN SETTING UP THE PK280SS

1. Interface the PK280SS to the digital indicator for scale input, and to the printer for print data output. Any extra peripheral equipment such as a report printer or computer should also be connected at this time. For information on making these connections, see *Appendix D*, *Scale Indicator and Printer Interfacing,* page 9-26.

2. *Understanding the PK280SS Keyboard and Displays,* starting on page 2-1, will get you up to speed quickly for navigating around the Box Label Program and for understanding the 2nd level row of keys—the Function keys that are used for various setup, testing, and maintenance tasks. At this point, no configuration settings have yet been established for your particular use of the Box Label Program. That configuration can **only** be done after the next important step—initialization.

3. *Initialize the PK280SS*, page 3-1, explains an important procedure for setting up this system. Though the PK280SS comes factory-configured with the Box Label Program resident in memory, the memory may have been corrupted by electrostatic discharge during shipping and setup. Therefore, to ensure flawless operation, the PK280SS's memory must be totally cleared. This procedure is called initializing and will set all parameters, except those dealing with the serial ports, to the original factory defaults.

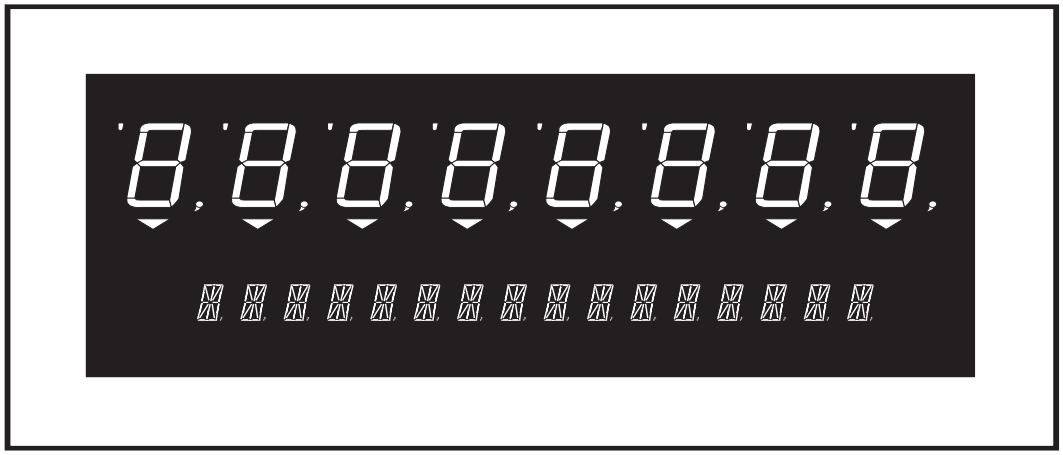
4. *Configure the PK280SS*, starting on page 4-1, has a graphic roadmap of the entire setup menu followed by detailed descriptions of each sub-menu and individual parameter. This step configures the parameters to match the requirements of your application.

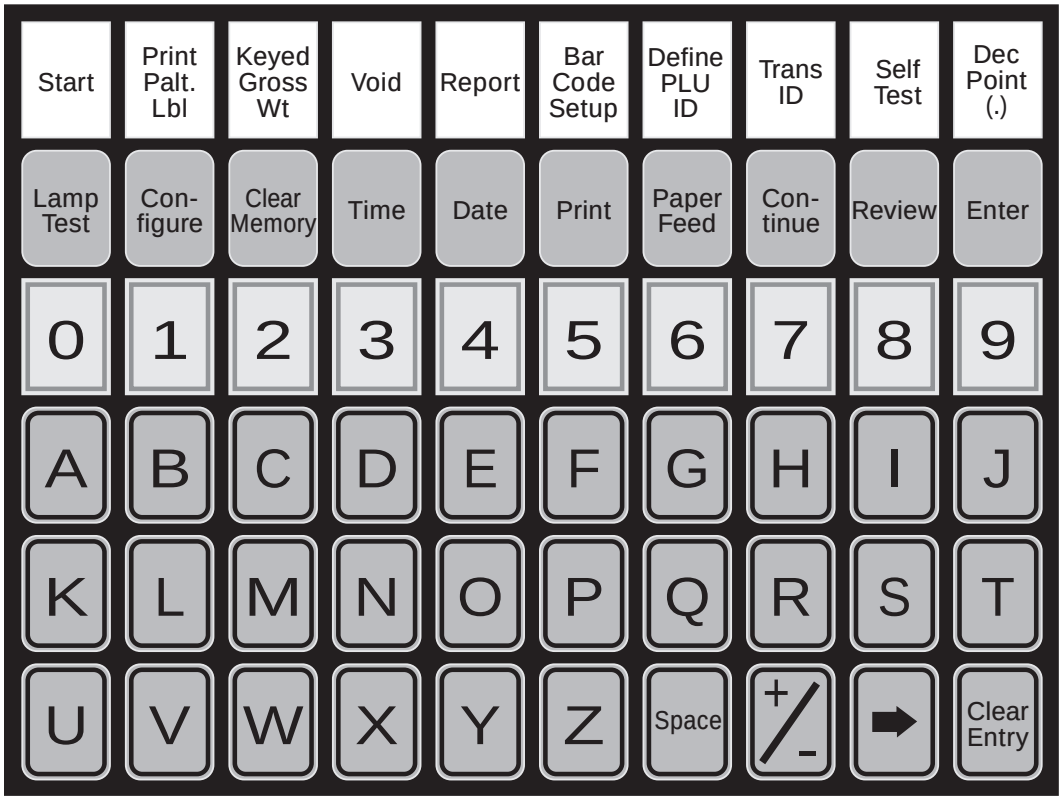
After finishing these four steps, you are ready to use the PK280SS Terminal for your weighing and labeling operations. See *Application Keys*, page 5-1, and *Box Label Program*, page 6-1, for information on both initial data entry and day-to-day use.

2. UNDERSTANDING THE PK280SS KEYBOARD AND DISPLAYS

The PK280SS communicates via its eight-character NUMERIC display, 16-character ALPHANUMERIC display, and the 60-position KEYBOARD. It is divided into five sections:

1. The NUMERIC display is used to display weight information, and as an adjunct to the alpha display. When a menu is being scrolled, the numeric display will show the current menu selection number.
2. The ALPHANUMERIC display is used to prompt the operator for input, and to display the input data as well as the scrolling menu system.
3. The top row of keys are APPLICATION keys. These are factory-programmed, and are used to customize the program to your weighing operations.
4. The second row of keys are FUNCTION keys, and are used for various setup, test and maintenance functions.
5. The ALPHANUMERIC keypad is used to input data in response to the operator prompts on the ALPHANUMERIC display.





1. NUMERIC display
2. ALPHANUMERIC display
3. APPLICATION keys (described on p. 5-1)
4. FUNCTION keys (described on p. 2-2)
5. ALPHANUMERIC keypad

NOTE: Only the minus sign (-) is functional on the **+/-** key.

FUNCTION KEYS AND SCROLLING MENU

The Function Keys are used for various setup, test and maintenance functions.

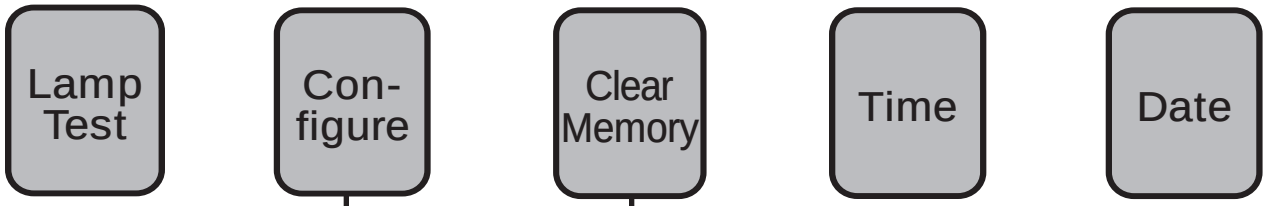
Press the LAMP TEST key to test all segments of the fluorescent digital displays.

The CONFIGURE key prompts a scrolling menu that tailors the PK280SS to your exact requirements.

Use the CLEAR MEMORY key at installation start-up or for a new operation.

Press the TIME key to view the time.

Press the DATE key to view the date.



SCROLLING MENU

CLEAR TOTALS p. 3-1
ERASE MEMORY p. 3-1
INITIALIZE SYSTEM p. 3-1

SCROLLING MENU

SET CLOCK p. 4-10
CONFIGURE SERIAL PORT 1 (or 2) p. 4-10
CONFIGURE SCALE p. 4-11
CONFIGURE PRINTER p. 4-12
CONFIGURE PASSWORD p. 4-13
CONFIGURE PAGE p. 4-14
CONFIGURE ID's p. 4-24
CONFIGURE APPLICATION p. 4-25
PRINT PK280SS CFG p. 4-26

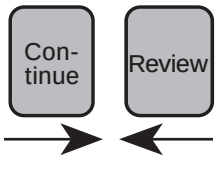
Scrolling Menu and Direction Keys

The operation of the PK280SS is based on "scrolling menus". A scrolling menu is a list of operations that are viewed on the digital display and may require a data entry.

After the CONFIGURE, CLEAR MEMORY keys, or any of the 1st level Application keys are pressed, four keys put you in control of the scrolling menu system: CONTINUE, REVIEW, ENTER, and CLEAR ENTRY.

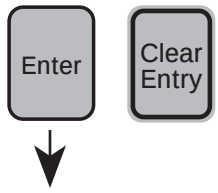
Use the CONTINUE key to scroll the menu forward and to review previous data entries.

Use the REVIEW key to scroll a menu backward and to review previous data entries.

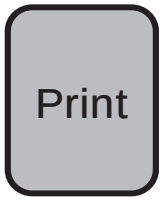


Use the ENTER key to select a menu item and to complete a data entry.

Use the CLEAR ENTRY key to exit from a menu and to terminate a function in progress.



Press the PRINT key followed by the ENTER key to send the scale gross weight, time, and date to port 1.



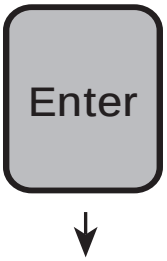
(The PRINT key is normally used by the Survivor SST as a test key)

Press the PAPER FEED key to feed a blank label out of the label printer.

Press the CONTINUE key to go to the next selection in the scrolling menu.

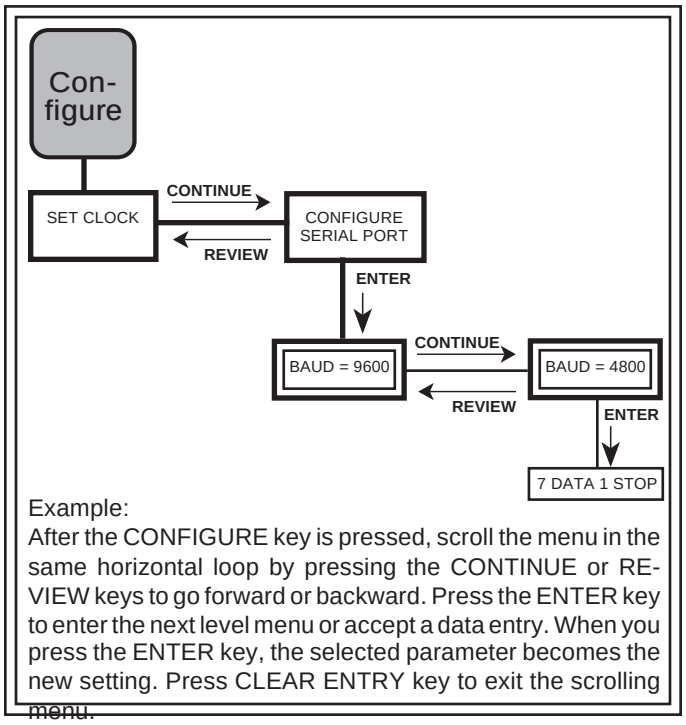
Press the REVIEW key to go to the previous selection in the scrolling menu.

The ENTER key will enter the keyboard data and go to the next selection in the scrolling menu.



The ARROW key deletes one character at a time to the left of the display.

Press the CLEAR ENTRY key to exit back to the main display prompt.



Example:
After the CONFIGURE key is pressed, scroll the menu in the same horizontal loop by pressing the CONTINUE or REVIEW keys to go forward or backward. Press the ENTER key to enter the next level menu or accept a data entry. When you press the ENTER key, the selected parameter becomes the new setting. Press CLEAR ENTRY key to exit the scrolling menu.

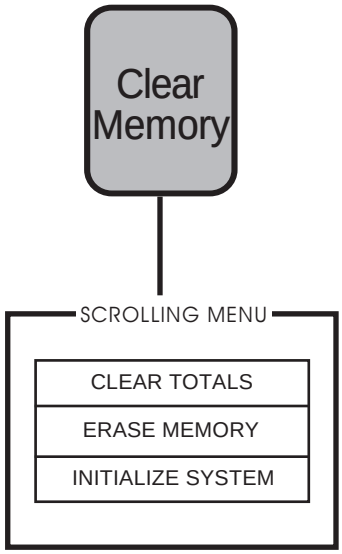
3. INITIALIZE THE PK280SS

INITIALIZE SYSTEM

After interfacing the different pieces of equipment in the system and powering up, you **must** initialize the PK280SS before configuring it. The INITIALIZE SYSTEM function erases all items that may have been entered into memory, writes the default page-printer data, and sets all the configuration parameters (except Configure Serial Ports 1 and 2) back to factory default values. This ensures that any corruption of the memory caused during shipping and setup is eliminated.

> INITIALIZE ONCE ONLY! Initializing the system clears everything from the PK280SS memory before resetting the configuration parameters to the factory defaults. For daily operation when only numerical totals or PLU information are to be erased from memory, use the CLEAR TOTAL or ERASE MEMORY keys described below.

To initialize the system, press the CLEAR MEMORY key to enter the sub-menu level. Then press the CONTINUE key several times to scroll through the menu until the display reads “INITIALIZE SYS”. Press the ENTER key to initialize the PK280SS.



CLEAR TOTALS

The CLEAR TOTALS selection will clear all PLU numerical totals that have been accumulated in memory. Use the CLEAR TOTALS function when you want to clear the PLU accumulated totals, but don’t require a report. Also, use this function when the display reads “MEMORY FULL”. If the transaction storage is enabled, the number of PLU’s that can be stored will be influenced, as each transaction is stored in memory. The CLEAR TOTALS function will restore some memory without erasing other important PLU information.

ERASE MEMORY

The ERASE MEMORY function will clear all PLU information stored in the PK280SS. Use this feature only when **ALL** PLU’s need to be erased.

> WARNING: When the ERASE MEMORY function is used, the information cannot be retrieved.

4. CONFIGURE THE PK280SS

The configuration process tailors the PK280SS to your specific application. The configuration procedure is described in ten menu parameters:

- Set Clock
- Configure Serial Port 1
- Configure Serial Port 2
- Configure Scale
- Configure Printer
- Configure Password
- Configure Page
- Configure ID's
- Configure Application Variables
- Print PK280SS Configurations

These ten configuration parameters are shown in graphic form on the next several pages. Each parameter is then described in detail in the section following the graphics pages, *Configure Menu Descriptions and Operations*, p. 4-10.

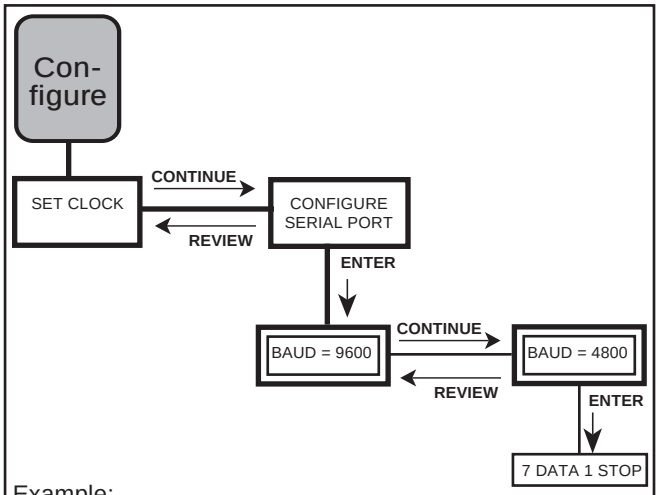
CONFIGURATION CHART

The Configure menu has ten main menu selections, each with its own sub-menu of parameter choices. On the following pages, the Configure menu is shown in a graphic chart. The ten menu selections are shown on pages 4-2 through 4-9.

After the CONFIGURE key is pressed, the first item of a scrolling menu appears on the display. Three directional keys (CONTINUE, REVIEW, and ENTER) move you through the configure menu. The CLEAR ENTRY key will exit you out of the configure menu at any time.

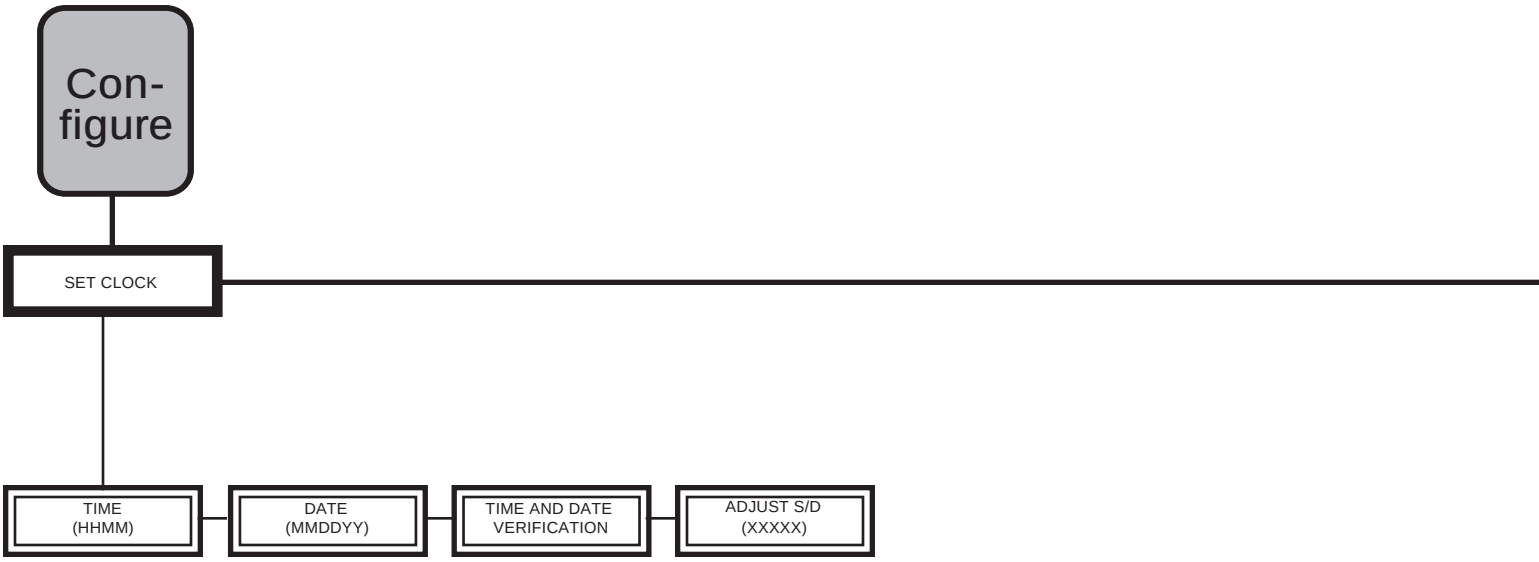
The Configure menu is arranged with selectable options on several levels. Pressing the CONTINUE and REVIEW keys allows horizontal movement through the menu selections. The ENTER key allows movement to a lower level. When moving down into a lower level, the first choice shown on the display screen is the default setting. To change the default to another selection, scroll sideways with the CONTINUE or REVIEW key until the desired choice is shown and push the ENTER key. That action will program your displayed choice as the new setting. For parameters that require a keypad entry, key in the value (alpha or numeric) via the keyboard and press ENTER.

The choice that is displayed when you exit to a lower level will become the locked-in or new setting. When exploring a parameter and after pressing the ENTER key, remember that "What you see is what you get!".



Example:
After the CONFIGURE key is pressed, scroll the menu in the same horizontal loop by pressing the CONTINUE or REVIEW keys to go forward or backward. Press the ENTER key to enter the next level menu or accept a data entry. When you press the ENTER key, the selected parameter becomes the new setting. Press CLEAR ENTRY key to exit the scrolling menu.

A complete description and operation of all configuration parameters follows the Configuration Chart pages.

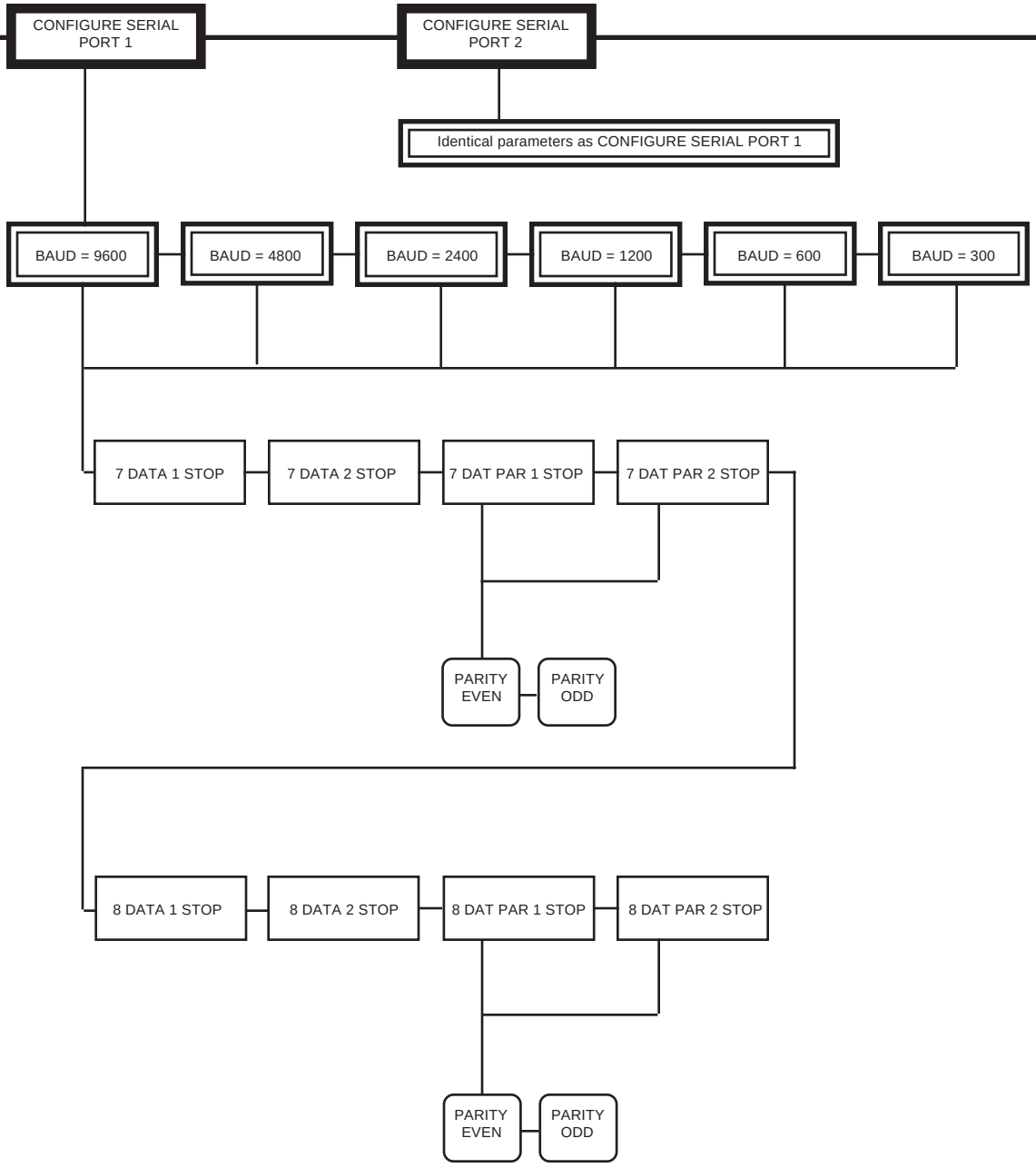


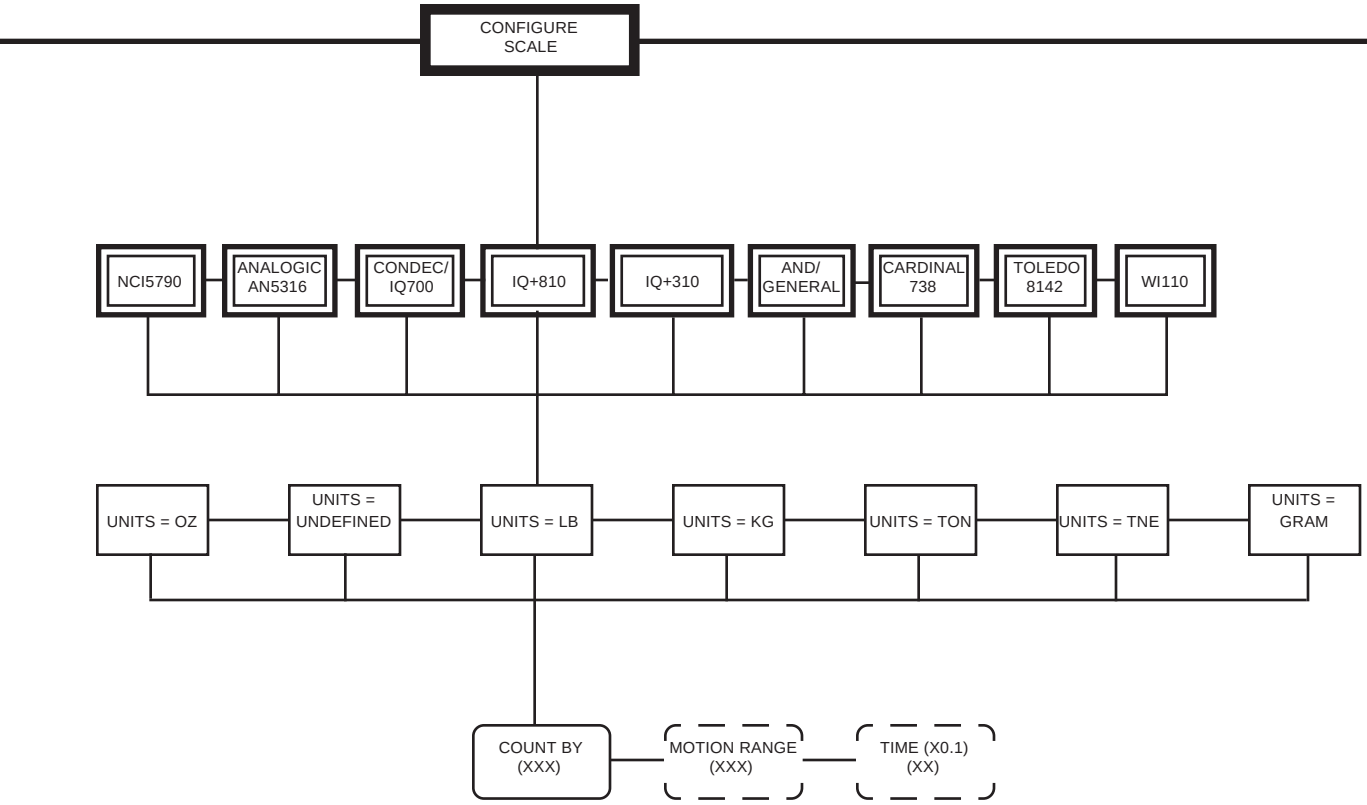
NOTE ON CONFIGURATION CHART ORGANIZATION:

In each box, the word(s) are the actual display shown on the display; the symbols in parentheses require a numerical or digital entry from the keyboard, or keep the default setting by pressing the ENTER key.

Legend

(D) = Day
(H) = Hour
(M) = Minutes or Month, as applicable
(N) = Variable number
(S) = Seconds
(X) = Alpha or Numeric entry required, or keep the default setting
(Y) = Year
(Y/N) = Yes or No (“Y” or “N”) entry required, or keep the default setting

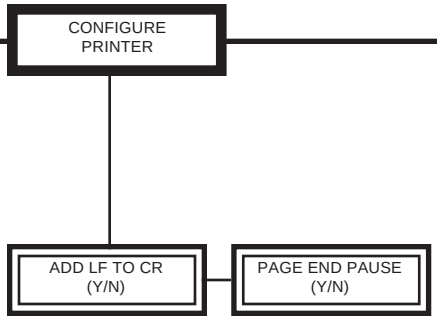

CONFIGURE SERIAL PORT 1
CONFIGURE SERIAL PORT 2
(Continued on next page)
Identical parameters as CONFIGURE SERIAL PORT 1
BAUD = 9600
BAUD = 4800
BAUD = 2400
BAUD = 1200
BAUD = 600
BAUD = 300
7 DATA 1 STOP
7 DATA 2 STOP
7 DAT PAR 1 STOP
7 DAT PAR 2 STOP
PARITY EVEN
PARITY ODD
8 DATA 1 STOP
8 DATA 2 STOP
8 DAT PAR 1 STOP
8 DAT PAR 2 STOP
PARITY EVEN
PARITY ODD



(Parameters available for scale WI110 only)

Legend

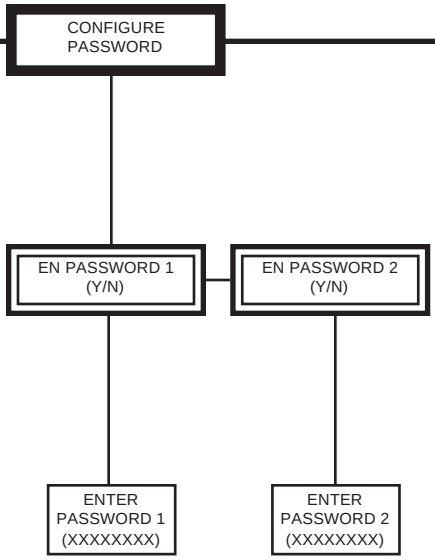
(X) = Alpha or Numeric entry required, or keep the default setting



(Continued on next page)

Legend

(Y/N) = Yes or No (“Y” or “N”) entry required, or keep the default setting



LEVEL 1 PROTECTED FUNCTIONS: DEFINE PLU's, TRANSACTION ID, AND CLEAR MEMORY.

LEVEL 2 PROTECTED FUNCTIONS: CONFIGURE AND INITIALIZE SYSTEM.

WARNING: ONCE A PASSWORD IS ENTERED IT MUST BE MEMORIZED. IF YOU FORGET THE PASSWORD THERE IS NO WAY TO ACCESS THE PROTECTED FUNCTIONS.

WRITE PASSWORD 1 HERE:

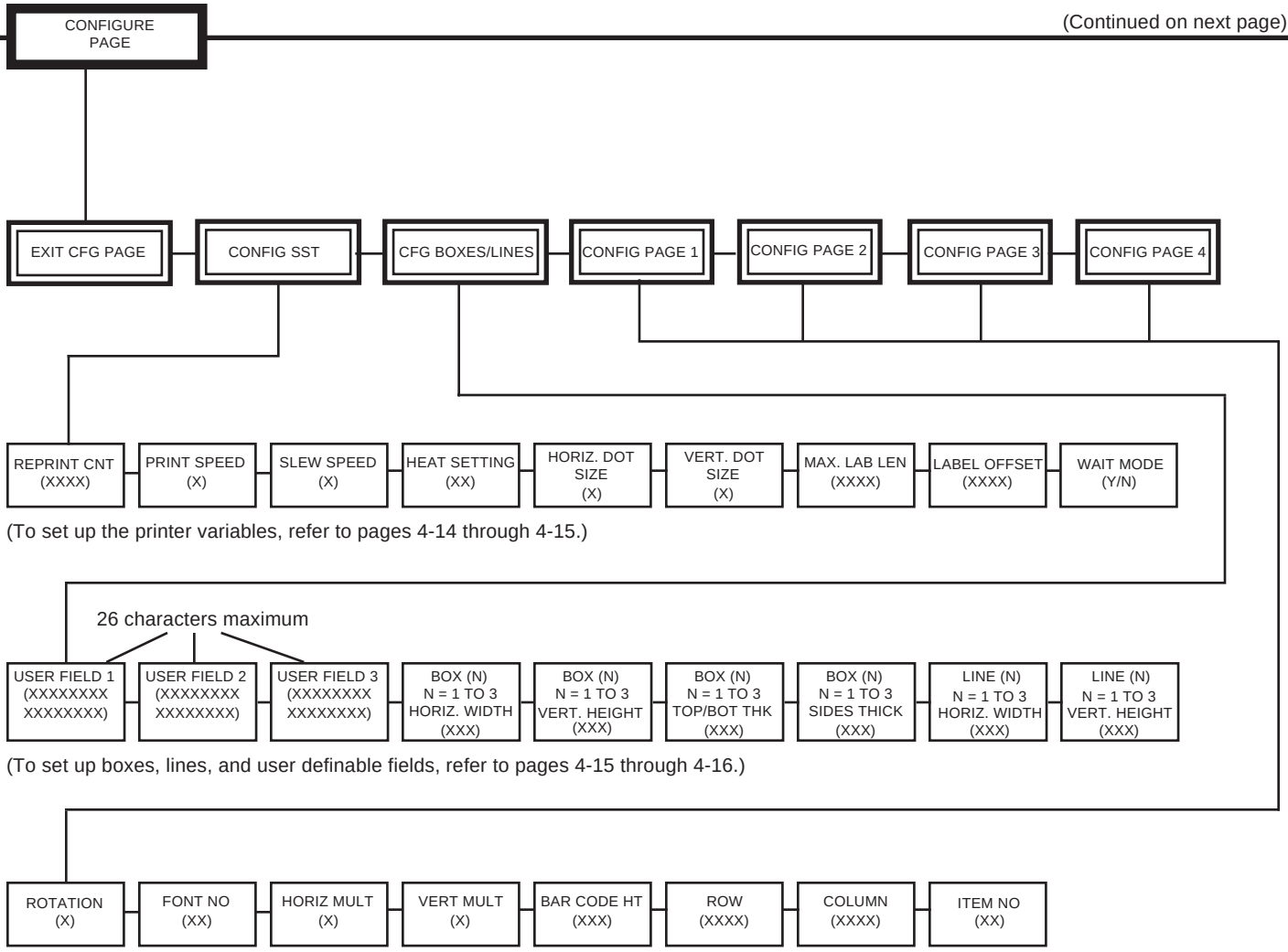
_____

WRITE PASSWORD 2 HERE:

_____

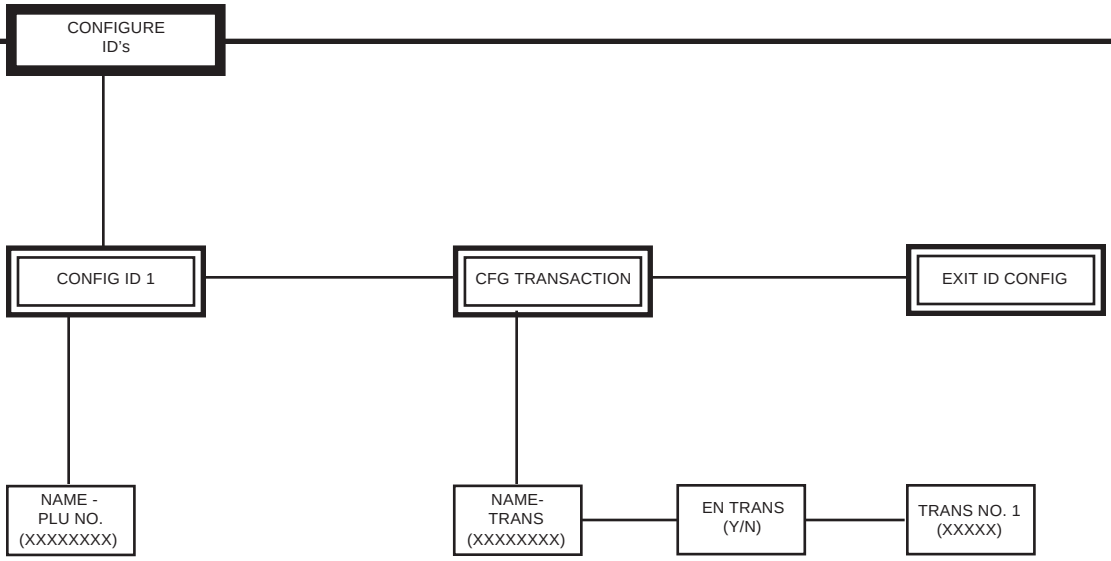
Legend

(X) = Alpha or Numeric entry required, or keep the default setting
(Y/N) = Yes or No ("Y" or "N") entry required, or keep the default setting



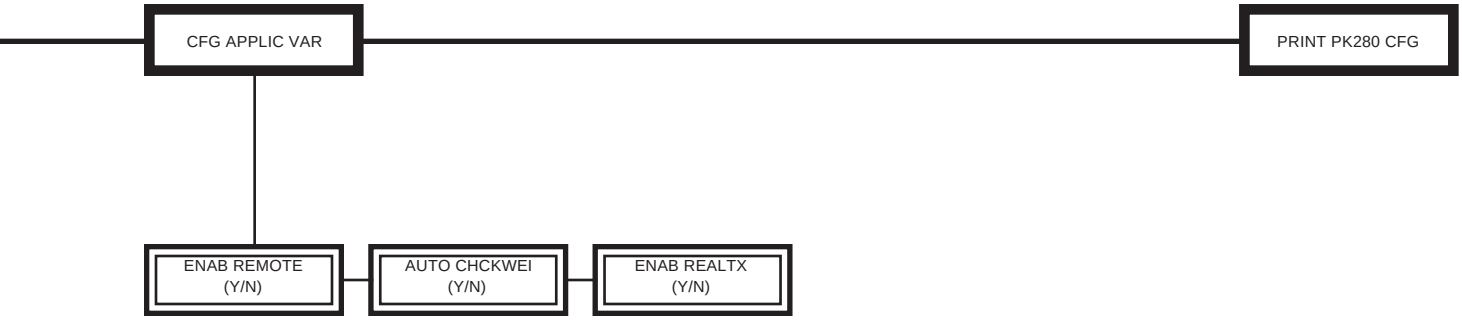
Legend

(N) = Variable number
(X) = Alpha or Numeric entry required, or keep the default setting
(Y/N) = Yes or No (“Y” or “N”) entry required, or keep the default setting



Legend

(X) = Alpha or Numeric entry required, or keep the default setting
(Y/N) = Yes or No (“Y” or “N”) entry required, or keep the default setting



Legend

(Y/N) = Yes or No (“Y” or “N”) entry required, or keep the default setting

CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
SET CLOCK	**Description** This function is used to set the time and date in the PK280SS. **Operation** 1. Press the CONFIGURE key to enter the 2nd level menu, then scroll to “SET CLOCK” and press the ENTER key. 2. The PK280SS prompts: “TIME HHMM*” where HH = hours, MM = minutes, and * = A for AM, P for PM or the SPACE key for 24 hour time. Enter the hour (2 digits), the minutes (2 digits) and then “A”, “P”, or press the SPACE key. Press the ENTER key. If you forget to enter the “A”, “P”, or to press the SPACE key after the minutes, the time reading will be incorrect. 3. The PK280SS prompts: “DATE MMDDYY” where MM = month, DD = day, and YY = year. Enter the month (2 digits), the day (2 digits), and the year (2 digits). Press the ENTER key. The PK280SS then displays the time and date verification. Press the ENTER key to set the time and date into the clock. Press the ENTER key again. 4. The PK280SS prompts: “ADJUST S/D- XXXX” where XXXX = the number of seconds per day to adjust the clock. Enter a 0 when installing the PK280SS. If the clock is slow enter the number of seconds/day that the clock is slow. If the clock is fast enter the NEGATIVE number of seconds/day. Note: The upper keyboard display will show the number of days since the clock was last set.	**Example: Time** Enter: 0130P This represents: 1:30 P.M. **Example: Date** Enter: 072996 This represents: July 29, 1996.
CONFIGURE SERIAL PORT 1 (or 2)	**Description** Configure Serial Port 1 (or 2) allows you to select the baud rate, data format, and parity to match your scale indicator output. Port 1 is used for the scale indicator input and label printer output. Port 2 is generally used to send reports to a report printer or PC. Note: The PK280SS must be set to the same serial parameters as the indicator and the printer. **Operation** 1. Press the CONFIGURE key to enter the 2nd level menu, then scroll to “CONFIG SER PORT 1 (or 2)” and press the ENTER key. 2. The PK280SS prompts: “BAUD = NNNN”, where NNNN = the current baud rate selection. Press the CONTINUE key to scroll through the baud rates and press the ENTER key to enter the selected baud rate.	**Baud Rate** BAUD = 300 BAUD = 600 BAUD = 1200 BAUD = 2400 BAUD = 4800 BAUD = 9600

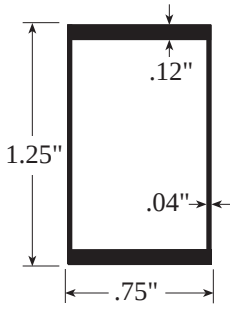
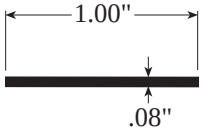
CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
CONFIGURE SERIAL PORT 1 (or 2) (cont.)	3. The PK280SS prompts: "N DATA N STOP", where N DATA = number of data bits per character, and N STOP = number of stop bits per character. Press the CONTINUE key to scroll through the character format selections and press the ENTER key to select a character format. Note: If your indicator doesn't have a 1 STOP setting, choose a 1 STOP character format. The PK280SS will read the data without any stop bits. 4. If a data format was chosen that had "PAR", press the CONTINUE key to scan the parity selections and press the ENTER key to select the parity.	**Character Format** 8 DATA 1 STOP 8 DATA 2 STOP 8 DAT PAR 1 STOP 8 DAT PAR 2 STOP 7 DATA 1 STOP 7 DATA 2 STOP 7 DAT PAR 1 STOP 7 DAT PAR 2 STOP **Parity** PARITY ODD PARITY EVEN
CONFIGURE SCALE	**Description** The Configure Scale menu allows you to select the indicator type, set units (e.g., LB, KG, etc.), and count-by graduations (e.g., 1, 2, 5, etc.). **Operation** 1. Press the CONFIGURE key to enter the 2nd level menu, then scroll to "CONFIG SCALE" and press the ENTER key. 2. The PK280SS prompts: "IQ+810" (or current meter that is selected) Press the CONTINUE key to scroll through the indicator list and press the ENTER key to enter the selected indicator. NOTE: The PK280SS was designed for indicators having continuous output. Contact your distributor for information on interfacing to indicators with demand output. 3. The PK280SS prompts: "UNITS = XXXX", where XXXX = the scale units being sent by the scale indicator. Note: If the scale input units do not match the units configured the PK280SS display will show the message: "-U-", for undefined units. Press the CONTINUE key to scroll through the scale unit list and press the ENTER key to enter the selected unit. 4. The PK280SS prompts: "COUNT BY XX", where XX = count-by graduations of the weight indicator. Press the ENTER key to use the default count-by or enter a new number and press the ENTER key. Note: If the indicator's "count-by" doesn't match the PK280SS's "count-by", a "CBY" (count-by error) message will appear on the display during the weighing operation.	**Indicators** IQ+810 IQ+310 NCI5790 ANALOGIC AN5316 CONDEC / IQ700 AND / GENERAL CARDINAL 738 TOLEDO 8142 WI 110 **Units** UNITS = UNDEF (units undefined) UNITS = LB UNITS = KG UNITS = TON UNITS = TNE (metric tons) UNITS = GRAMS UNITS = OZ **Valid Count By's** .01 1 .02 2 .05 5 .10 10 .20 20 .50 50

CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
CONFIGURE SCALE (cont.)	5. For scale WI110 only : When the internal motion detect option is installed - The PK280SS prompts: "MOTION RANGE XX", where XX is allowable weight deviation for the scale when not in motion. Press the ENTER key to use the displayed range or enter a new motion detect range and press the ENTER key. The PK280SS prompts: "TIME (X0.1) XX", where XX is the time between motion detect samples (tenth of a second (X0.1) intervals). Press the ENTER key to use the displayed range or enter a new motion detect range and press the ENTER key.	
CONFIGURE PRINTER	**Description** This function is used to format the reports as they are transmitted to port 2. **Operation** 1. Press the CONFIGURE key to enter the 2nd level menu, then scroll to "CONFIG PRINTER" and press the ENTER key. 2. The PK280SS prompts: "ADD LF TO CR N" Enter a "Y" to add a linefeed to each carriage return character or enter a "N" to disable the additional line feed character and press the ENTER key. 3. The PK280SS prompts: "PAGE END PAUSE N" Enter a "Y" to pause at the end of each page when printing reports or enter a "N" if the printer has continuous paper and press the ENTER key.	

CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
CONFIGURE PASSWORD	**Description** This function enables password protection by prompting for a password before the operator can access the protected functions. The two password levels are: • Password Level 1 - protects access to the DEFINE PLU, TRANSACTION ID, and the CLEAR MEMORY functions. • Password Level 2 - protects access to the CONFIGURE and INITIALIZE SYSTEM functions. **Operation** 1. Press the CONFIGURE key to enter the 2nd level menu, then scroll to “CONFIG PASSWORD” and press the ENTER key. 2. The PK280SS prompts: “EN PASSWORD 1 Y/N” Enter “Y” to enable the password or “N” to disable the password and press the ENTER key. 3. If “Y” is entered and the password is enabled: The PK280SS prompts: “ENTER PASSWORD 1” Enter up to 8 characters for the new password and press the ENTER key. 4. Repeat for password 2. WARNING: ONCE A PASSWORD IS ENTERED IT MUST BE MEMORIZED. IF YOU FORGET THE PASSWORD THERE IS NO WAY TO ACCESS THE PROTECTED FUNCTIONS. FOR SAFETY, WRITE YOUR PASSWORDS AT RIGHT. The PASSWORD function inserts an additional step when accessing protected functions: The PK280SS prompts: “ENTER PASSWORD” The correct password must be entered before proceeding.	WRITE PASSWORD 1 HERE: _____ WRITE PASSWORD 2 HERE: _____

CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
CONFIGURE PAGE	**Description** The CONFIGURE PAGE menu is used to configure the label printer variables and to setup the label formats with items such as product, weight, time and date, etc. **Operation** 1. Press the CONFIGURE key to enter the 2nd level menu, then scroll to “CONFIG PAGE” and press the ENTER key. 2. Press the CONTINUE key to scan the menu and press the ENTER key to select a menu.	**Menu** CONFIG SST CONFIG BOXES/ LINES CONFIG PAGE 1 CONFIG PAGE 2 CONFIG PAGE 3 CONFIG PAGE 4 EXIT CFG PAGE
1. CONFIGURE SST* * The PK280SS configuration also applies to the Allegro, Prodigy, and Prodigy Plus.	**Description** This menu will configure the Survivor SST printer variables. The Survivor SST printer has several parameters that modify its operation. The INITIALIZE SYSTEM function clears the printer parameters to zeros, which represent the default values for the printer. These defaults are shown in **bold** in the columns at right. **Operation** 1. With the 2nd level CONFIGURE PAGE menu active, scroll to “CONFIGURE SST” and press the ENTER key. 2. The PK280SS prompts: “REPRINT COUNT” Enter up to 4 digits and press the ENTER key. REPRINT COUNT will reprint labels (for printing multiple labels). Every PRINT LABEL command sent to the printer will be reprinted ‘count’ times. The printer default is zero (no reprints). 3. The PK280SS prompts: “PRINT SPEED” Enter 1 letter (C-O) and press the ENTER key. The PRINT SPEED is measured in increments of .5" per second for each selection C to O. The printer default is K (6.0"/sec). 4. The PK280SS prompts: “SLEW SPEED” Enter 1 letter (C-O) and press the ENTER key. The SLEW SPEED is measured in increments of .5" per second for each selection C to O. The SLEW SPEED is the speed the label is fed when no printing is occurring. The printer default is K (6.0"/ sec). 5. The PK280SS prompts: “HEAT SETTING” Enter 2 digits and press the ENTER key. The HEAT SETTING will modify the dot temperature. Each step increments the burn time by 100 µseconds. The burn time affects the amount of heat transferred from the print head to the media, causing	**Survivor SST Menu** REPRINT COUNT PRINT SPEED SLEW SPEED HEAT SETTING HORIZ DOT SIZE VERT DOT SIZE MAX. LABEL LEN LABEL OFFSET WAIT MODE **Print or Slew Speed** C = 2.0"/sec D = 2.5"/sec E = 3.0"/sec F = 3.5"/sec G = 4.0"/sec H = 4.5"/sec I = 5.0"/sec J = 5.5"/sec **K = 6.0"/sec** L = 6.5"/sec M = 7.0"/sec N = 7.5"/sec O = 8.0"/sec **Heat Setting** Valid entries range from 01 to 20, where 01 = 100 µseconds and 20 = 2000 µseconds (2 ms).

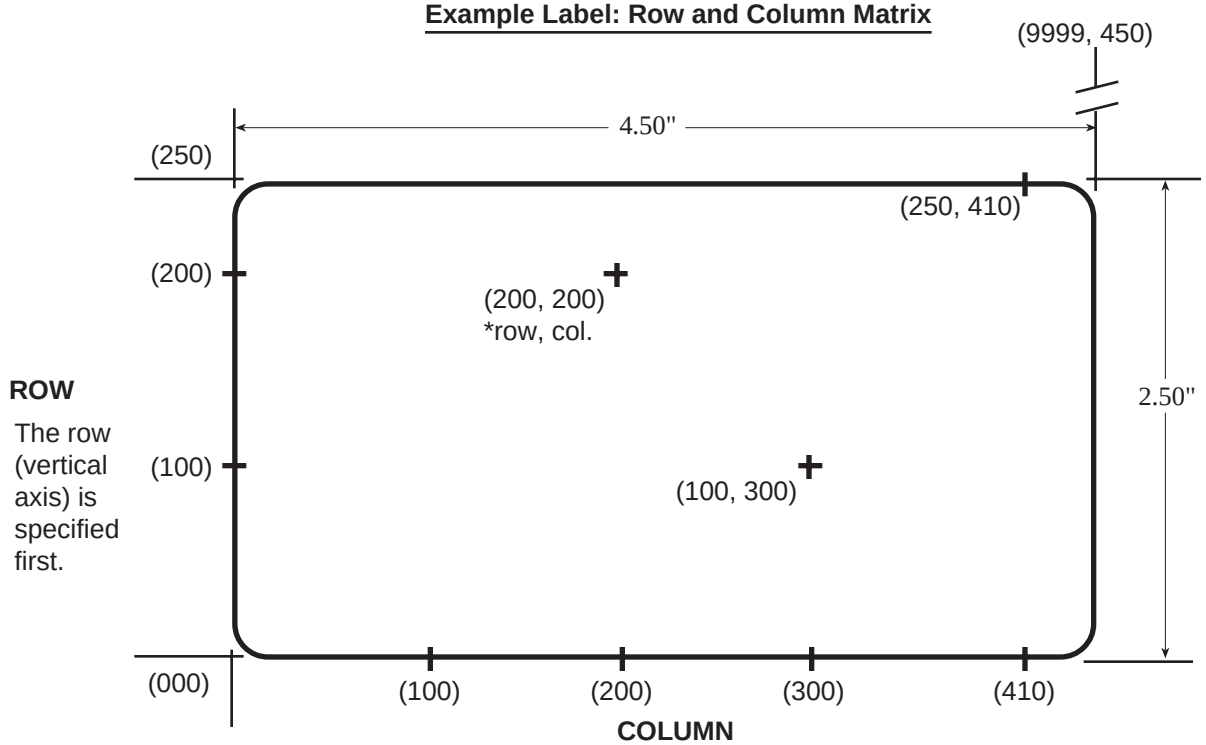
CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
CONFIGURE PAGE (cont.) 1. CONFIGURE SST (cont.)	lighter or darker dots. The printer default is 10 (1 ms). Note: Heat setting is a factor in determining the life of a print head. Select the lowest heat setting consistent with good legibility. 6. The PK280SS prompts: "HORIZ DOT SIZE" Enter 1 digit and press the ENTER key. HORIZ DOT SIZE will modify the horizontal size of dots. A larger dot size produces a better resolution print. The printer default is 2. 7. The PK280SS prompts: "VERT DOT SIZE" Enter 1 digit and press the ENTER key. VERT DOT SIZE will modify the vertical size of dots. The printer default is 2. 8. The PK280SS prompts: "MAX LABEL LEN" Enter 4 digits and press the ENTER key. The MAXIMUM LABEL LENGTH will set the maximum feed length to the next label. Set this value for the maximum distance that you want the printer to run when no labels are present. If no labels are present within that distance the printer will stop. The printer default is 1200 (12.00"). 9. The PK280SS prompts: "LABEL OFFSET" Enter 4 digits to specify the label offset and press the ENTER key. This command is used when implementing autopeel printing and you want the labels to feed out a little farther for easier removal from the backing. The label offset is measured in increments of .01"/step. The printer default is 110 (1.10") 10. The PK280SS prompts: "WAIT MODE (Y/N)" "N" is the default setting (ZIP mode). Press the ENTER key for the ZIP mode. The ZIP mode formats the printing variables while printing. Or, enter "Y" and press the ENTER key for the WAIT mode. The WAIT mode formats the label first and then prints.	**Horizontal Dot Size** 1 = .005" per dot **2 = .010" per dot** **Vertical Dot Size** 1 = .005" per dot **2 = .010" per dot** 3 = .015" per dot **Maximum Label Length** Valid entries range from 0 to 9999, where 9999 = 99.99". **Label Offset** Valid entries range from 110 to 9999, where 9999 = 99.99". The label offset increments by .01"/step.
2. CONFIGURE BOXES, LINES, USER DEFINABLE FIELDS	**Description** The Survivor SST printer is capable of printing boxes and lines. The PK280SS provides a means of configuring 3 boxes, 3 lines, and 3 user definable fields. A user definable field is fixed information printed on the label, such as a company name and address, product, or graphic stored on a memory module. **Operation** 1. With the 2nd level CONFIGURE PAGE menu active, scroll to "CFG BOXES/LINES" and press the ENTER key. 2. The PK280SS prompts: "USER FIELD 1"	**User Definable Fields** USER FIELD 1 USER FIELD 2 USER FIELD 3

CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
CONFIGURE PAGE (cont.) 3. CONFIGURE BOXES, LINES AND USER DEFINABLE FIELDS (cont.) **Note: For Box and Line Printing** In the ITEM ENTRY on page 4-17, enter an "X" when you are prompted for the FONT.	Enter up to 26 characters for USER FIELD 1 and press the ENTER key. Repeat for USER FIELD 2 and USER FIELD 3, or press the CONTINUE key to scroll through a field. Note: User Definable Fields 1 through 3 can also be used to print graphics on your labels. Enter the name of the graphic file that is stored in the memory module when you are prompted for the User Definable Field information. Select the graphic file through the ITEM ENTRY (see page 4-17) by specifying items 01 to 03 (ITEM NO.) from the ITEM LIST on page 4-20. In the ITEM ENTRY, enter a "Y" when you are prompted for the FONT. 3. BOX PRINTING PARAMETERS: You can configure to print up to three boxes on your labels. The PK280SS displays the box number in the numeric display and the parameter to be entered in the alpha display. The box dimensions are specified in increments of .01". a. The PK280SS prompts: "HORIZ WIDTH" Enter up to 3 digits for the box width and press the ENTER key. b. The PK280SS prompts: "VERT HEIGHT" Enter up to 3 digits for the box height and press the ENTER key. c. The PK280SS prompts: "TOP/BOT THK" Enter up to 3 digits for the box's top and bottom line thickness and press the ENTER key. d. The PK280SS prompts: "SIDES THICK" Enter up to 3 digits for the box's side line thicknesses and press the ENTER key. 4. LINE PRINTING PARAMETERS: You can configure to print up to three lines on your labels. The PK280SS displays the line number in the numeric display and the parameter to be entered in the alpha display. The line dimensions are specified in increments of .01 in. a. The PK280SS prompts: "HORIZ WIDTH" Enter up to 3 digits for the horizontal line width and press the ENTER key. b. The PK280SS prompts: "VERT HEIGHT" Enter up to 3 digits for the vertical line height and press the ENTER key.	**Box Parameters** HORIZ WIDTH VERT HEIGHT TOP/BOT THK SIDES THICK **Example: Box** For HORIZ WIDTH, Enter: 75 For VERT HEIGHT, Enter: 125 For TOP/BOT THK, Enter: 12 For SIDES THICK, Enter: 4 The result is a box with lines and dimensions as below:  **Line Parameters** HORIZ WIDTH VERT HEIGHT **Example: Line** For HORIZ WIDTH, Enter: 100 For VERT HEIGHT, Enter: 8 The result is a line with dimensions as below: 

CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
CONFIGURE PAGE (cont.) 3. CONFIGURE PAGES 1, 2, 3, AND 4 **Note: Box or Line Items** If the ITEM is a BOX or LINE from the previous page, enter an "X" when you are prompted for the FONT. **Note: Inlaid Graphics** If the ITEM is an optional graphic stored on a memory module, enter a "Y" when you are prompted for the FONT.	**Description** The Configure Pages 1, 2, 3, and 4 menus allow you to choose which items to print on the labels and reports. These menus also allow you to format the label by specifying the font size and how the items are arranged on the label. CONFIG PAGE 1 specifies the label format for the box labels. CONFIG PAGE 2 specifies the label format for the pallet total labels. CONFIG PAGE 3 specifies the label format for the pallet subtotal labels. CONFIG PAGE 4 specifies the items to be printed on the label when the PRINT key is pressed. **Operation** Note: Use the *PAGE WORKSHEET*, *Appendix B*, p. 8-5. Enter your label format into the *PAGE WORKSHEET* using the *ITEM LIST* on page 4-20. Each page may have up to 25 items printed on it. 1. With the 2nd level CONFIGURE PAGE menu active, scroll to "CONFIGURE PAGE 1 (2, 3, or 4)" and press the ENTER key to begin a page data entry. 2. ITEM ENTRY: Specify the following 8 parameters for each item on a page. a. The PK280SS prompts: "ROTATION" Enter 1 digit to specify the rotation of the item and press the ENTER key. b. The PK280SS prompts: "FONT" Enter 2 character digits to specify the font of the item and press the ENTER key. **See *Appendix C, FONT AND BAR CODE SELECTIONS*, p. 9-7, for choices.** c. The PK280SS prompts: "HORIZ MULT" Enter 1 digit to specify the horizontal multiplier of the item and press the ENTER key. The horizontal multiplier specifies how wide to print each character or how wide to print each WIDE bar code (see *WIDE BAR WIDTH table*, p. 8-7). The printer default is 1. Values increment by .005". d. The PK280SS prompts: "VERT MULT" Enter 1 digit to specify the vertical multiplier of the item and press the ENTER key. The vertical multiplier specifies how high to print each character or how wide to print each NARROW bar code (see *NARROW BAR WIDTH table*, p. 8-8). The printer default is 1. Values increment by .005".	**Menu** CONFIG PAGE 1 CONFIG PAGE 2 CONFIG PAGE 3 CONFIG PAGE 4 **Item Parameters** ROTATION FONT HORIZ MULT VERT MULT BCHEIGHT ROW COLUMN ITEM NO **Rotation** 1 = 0 degrees 2 = 90 degrees 3 = 180 degrees 4 = 270 degrees **Fonts and Bar Codes** 0 to 9* = human readable fonts * For font no. 9, you must also specify a point size in place of the bar code height (BCHEIGHT) on page 4-18. A to O = bar code with human readable fonts AL to OL ** = bar code without human readable fonts ** Select any letter A to O followed by the letter L for bar code fonts that are not human readable. The L signifies lower case. V = Random Weight UPC bar code **Horizontal or Vertical Multiplier** For fonts or bar codes, specify 1 to 9 or A to O (10 to 24).

CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
CONFIGURE PAGE (cont.) 3. CONFIGURE PAGES 1, 2, 3, AND 4 (cont.)	e. The PK280SS prompts: "BCHEIGHT" Enter 3 digits to specify the bar code height of the item to be selected and press the ENTER key. The bar code height dimension is specified in increments of .01". f. The PK280SS prompts: "ROW" Enter 4 digits to specify the row that the item will be printed on and press the ENTER key. The row address is measured in increments of .01". The row address determines the placement of the ITEM. The row address can be thought of as "how far up" from the bottom of the label the ITEM is to be printed. g. The PK280SS prompts: "COLUMN" Enter 4 digits to specify the column that the item will be printed on and press the ENTER key. The column address is measured in increments of .01". The column address can be thought of as "how far over" from the left edge of the label the ITEM is to be printed.	**Example: BCHeight** For BCHEIGHT, Enter: 075 The result is a bar code height of 3/4" (0.75"). **Row Addresses** Valid entries range from 0000 to 9999, where 9999 = 99.99". The label addresses increment by .01"/ step (see matrix below) **Column Addresses** Valid entries range from 0000 to 0410, where 0410 = 4.10". The label addresses increment by .01"/ step (see matrix below)

Example Label: Row and Column Matrix

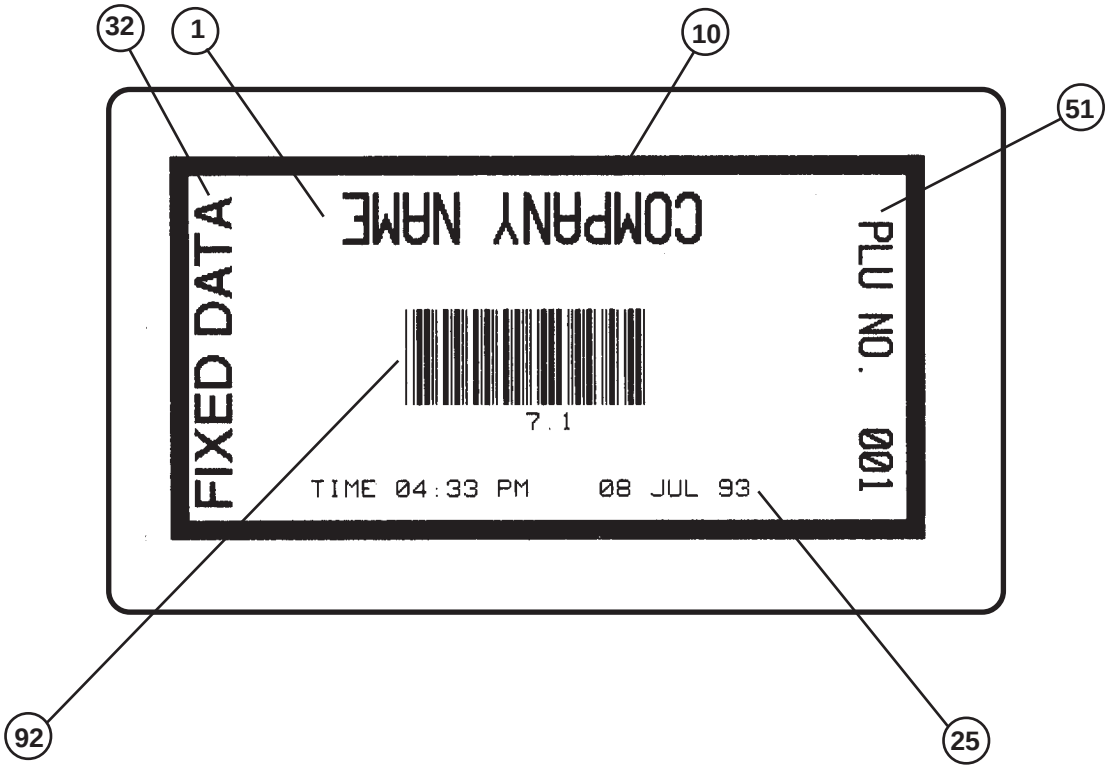


ROW

* The row (vertical axis) is specified first.

CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
	h. The PK280SS prompts: "ITEM NO" Enter 2 digits to specify the item number of the item to be printed and press the ENTER key. **See the *ITEM LIST* on p. 4-20 for all the possible choices.** Each ITEM follows the same format as described in the preceding instructions, steps a through g. 3. Each page may have up to 25 items printed on it. After the last data item, enter a zero for steps a through h in the preceding instructions. The last set of data must have all zeros entered to complete the Configure Page setup.	

Example Label: Printing Variables - Box, Line, Rotation, Font, BCHeight, Item (See page 4-20 for item nos.)

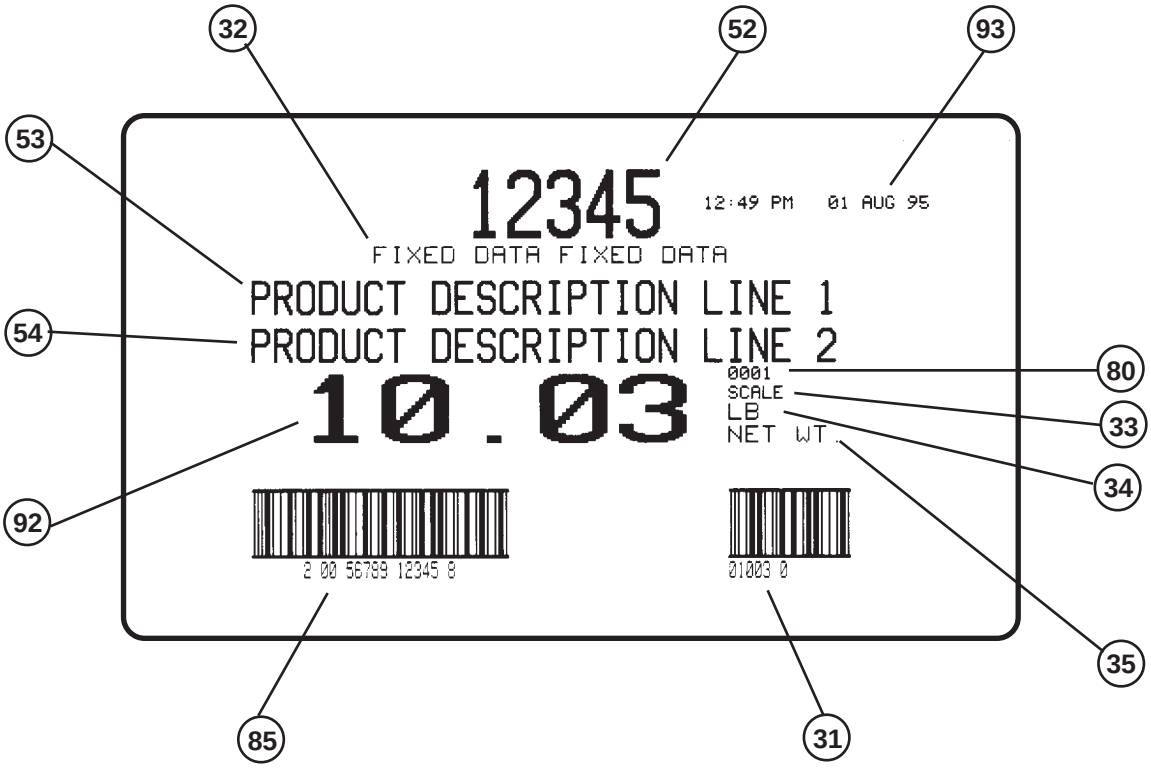


Configure Page Entry for above Label

P(X)	ROT	FONT	HSIZE	VSIZE	BCHT	ROW	COL	ITEM
	1	X	1	1	0	0010	0010	10
	3	3	1	1	0	0190	0290	1
	1	1	1	1	0	0030	0085	25
	1	A	3	1	50	0065	0135	92
	2	2	1	1	0	0175	0375	51
	4	9	1	1	3	0025	0050	32

CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
CONFIGURE PAGE (cont.) 3. CONFIGURE PAGES 1, 2, 3, AND 4 (cont.)	**Item List** **Item No. — Description** 01 — USER FIELD #1 (26 characters maximum) 02 — USER FIELD #2 (26 characters maximum) 03 — USER FIELD #3 (26 characters maximum) 10 — BOX 1 11 — BOX 2 12 — BOX 3 15 — LINE 1 16 — LINE 2 17 — LINE 3 20 — 'TRANSACTION NUMBER' - literal 21 — WEIGHT ON SCALE 22 — GROSS WEIGHT 23 — TARE WEIGHT 24 — 'NET' WEIGHT (e.g., prints "Net XX lb".) 25 — TIME AND DATE 26 — TIME 27 — DATE 30 — TRANSACTION NUMBER - actual value 31 — NET WEIGHT - actual value (e.g., prints "XX lb".) 32 — FIXED DATA (26 characters maximum) 33 — 'SCALE' or 'KEYED' - literal 34 — UNITS - actual value (e.g., "LB".) 35 — 'NET WT.' - literal* 36 — 'BOX COUNT' - literal* 37 — 'PRODUCT ACCUM.' - literal 50 — PLU # - actual value 51 — 'PLU' # (e.g., prints "PLU no___".) 52 — UPC PRODUCT CODE - actual value 53 — DESCRIPTION LINE 1 (26 characters maximum) 54 — DESCRIPTION LINE 2 (26 characters maximum) 55 — TARE WEIGHT 56 — UPPER TOLERANCE 57 — LOWER TOLERANCE 58 — NUMBER OF BOXES PER PALLET 59 — FIXED WEIGHT 60 — ADDRESS (26 characters maximum) 61 — TOTAL NUMBER OF BOXES 62 — TOTAL ACTUAL NET WEIGHT 63 — TOTAL PRINTED NET WEIGHT 80 — PALLET BOX COUNTER 81 — PALLET NET WEIGHT 82 — PALLET PRINTED NET WEIGHT 83 — PALLET TOTAL BAR CODE 85 — UPC SHIPPING SYMBOLOGY 86 — TIME & DATE OF TRANSACTION 90 — TEST STRING FOR SERIAL OUT 92 — PRINT NET IF FIXED WEIGHT IS ZERO 93 — PRINT DATE CODE OR TIME AND DATE 94 — 'PALLET TOTAL' - literal 95 — 'PALLET SUBTOTAL' - literal 96 — 'UPC ID' - literal	

Example: Box Label

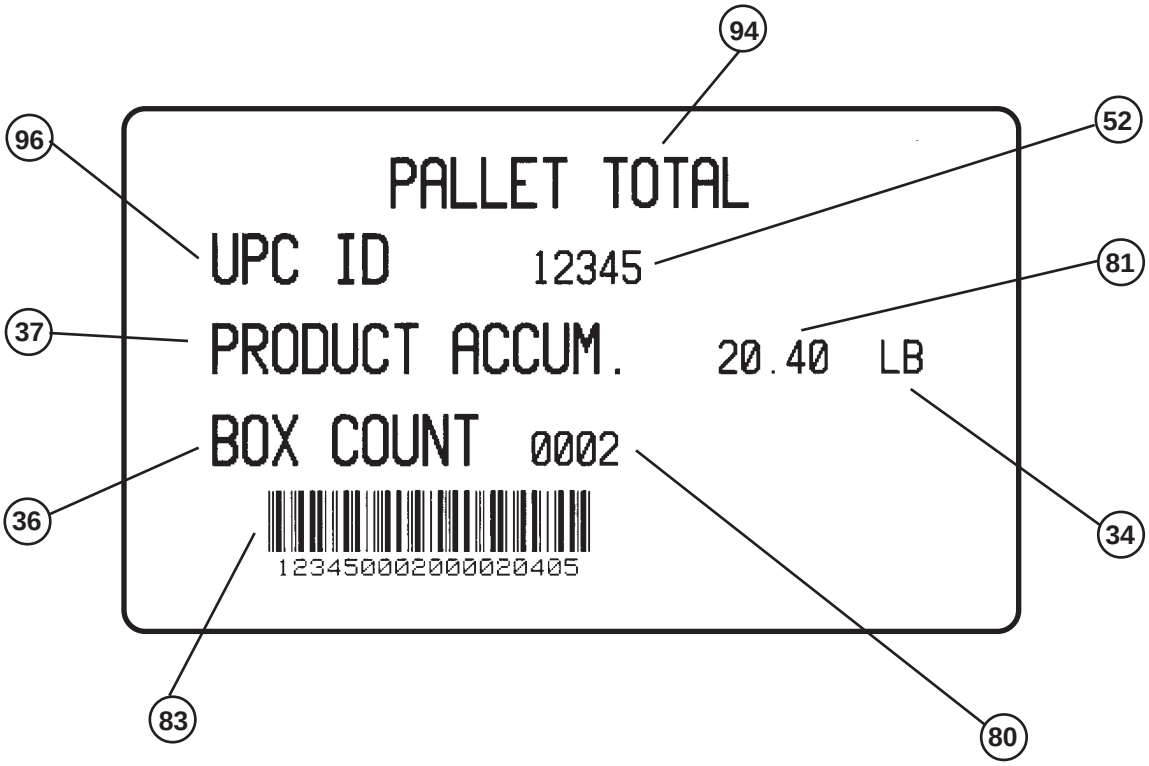


Configure Page 1 Entry for above Box Label

P1	ROT	FONT	HSIZE	VSIZE	BCHT	ROW	COL	**ITEM #**
	1	4	1	1	0	185	150	**52**
	1	1	1	1	0	170	100	**32**
	1	0	1	1	0	200	275	**93**
	1	2	1	1	0	145	35	**53**
	1	2	1	1	0	120	35	**54**
	1	0	1	1	0	111	288	**80**
	1	0	1	1	0	101	288	**33**
	1	4	2	1	0	78	20	**92**
	1	1	1	1	0	88	288	**34**
	1	1	1	1	0	76	288	**35**
	1	L	3	1	5	5	35	**85**
	1	L	3	1	5	5	288	**31**

Note: These are the default settings for CONFIGURE PAGE 1 - Box Label

Example: Pallet Total Label

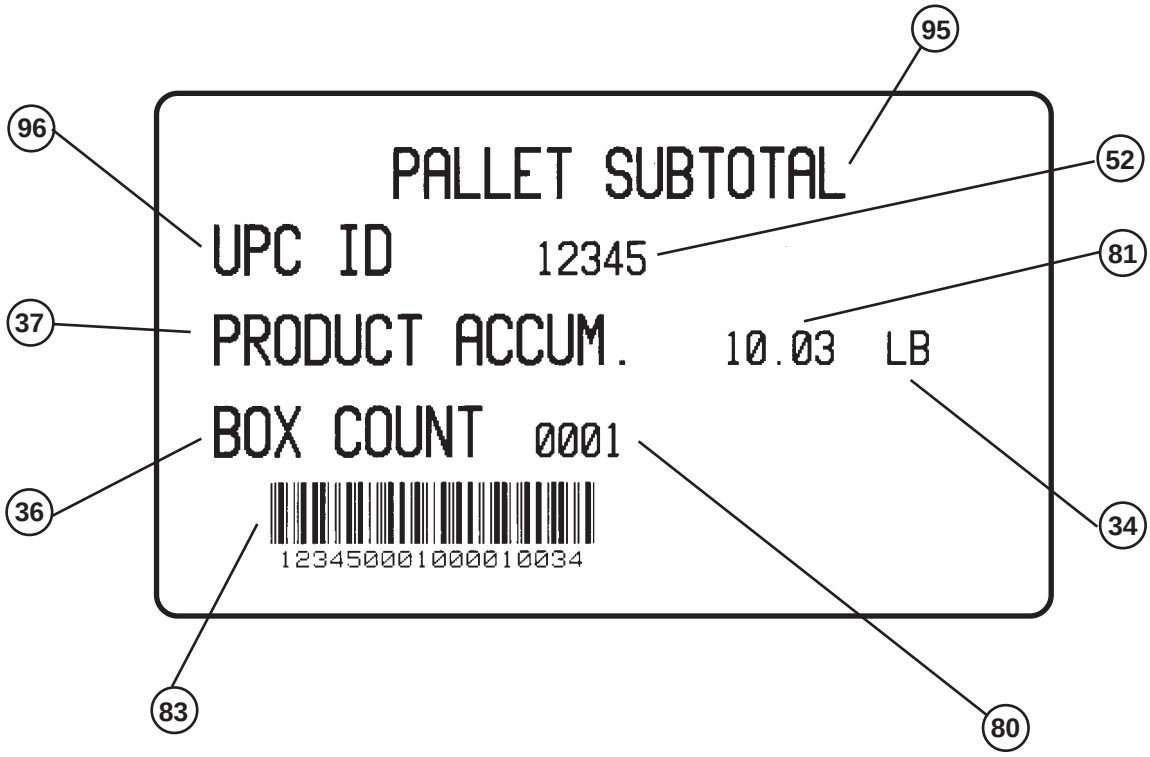


Configure Page 2 Entry for above Pallet Total Label

P2	ROT	FONT	HSIZE	VSIZE	BCHT	ROW	COL	**ITEM #**
	1	3	1	1	0	200	100	**94**
	1	3	1	1	0	160	5	**96**
	1	2	1	1	0	160	175	**52**
	1	3	1	1	0	113	5	**37**
	1	2	1	1	0	113	250	**81**
	1	3	1	1	0	65	5	**36**
	1	2	1	1	0	65	175	**80**
	1	2	1	1	0	113	360	**34**
	1	L	3	1	5	5	35	**83**

Note: These are the default settings for CONFIGURE PAGE 1 - Box Label

Example: Pallet Subtotal Label



Configure Page 3 Entry for above Pallet Subtotal Label

P3	ROT	FONT	HSIZE	VSIZE	BCHT	ROW	COL	**ITEM #**
	1	3	1	1	0	200	100	**95**
	1	3	1	1	0	160	5	**96**
	1	2	1	1	0	160	175	**52**
	1	3	1	1	0	113	5	**37**
	1	2	1	1	0	113	250	**81**
	1	3	1	1	0	65	5	**36**
	1	2	1	1	0	65	175	**80**
	1	2	1	1	0	113	360	**34**
	1	L	3	1	5	5	35	**83**

Note: These are the default settings for CONFIGURE PAGE 1 - Box Label

CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
CONFIGURE ID'S	**Description** CONFIGURE ID 1 allows you to change the prompt that will be displayed on the alphanumeric display upon pressing the START key. The default prompt is "ENTER PLU". CONFIGURE TRANSACTION activates the transaction storage. Each time a label is printed, the transaction is tabulated and placed in storage. The transaction number can be printed on the labels or reports by enabling this function. **Operation** 1. Press the CONFIGURE key to enter the 2nd level menu, then scroll to "CONFIG ID'S" and press the ENTER key. Press the ENTER key when the display reads "CONFIG ID 1". a. The PK280SS prompts: "NAME - PLU" Press the ENTER key to accept the displayed name (PLU) or enter a new name (up to 8 letters) followed by pressing the ENTER key. 2. The PK280SS prompts: "CFG TRANSACTION" Press the ENTER key. a. The PK280SS prompts: "NAME - TRANS" Press the ENTER key to accept the displayed name or enter a new name (up to 8 letters) followed by pressing the ENTER key. b. The PK280SS prompts: "EN TRANS (Y/N)" Enter a "Y" to enable transaction storage in memory or an "N" to disable it. If the transaction storage is enabled, the transaction report is stored in memory. The memory will fill after time, and a transaction pallet total report should be generated to clear the memory space. c. The PK280SS prompts: "TRANS NO. NNNNN", where NNNNN is the current transaction number. Press the ENTER key to retain the displayed number or enter a new transaction number (up to 5 digits) and press the ENTER key.	**Menu** CONFIG ID 1 CFG TRANSACTION

CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
CONFIGURE APPLICATION VARIABLES	**Description** This menu allows you to choose one of two operational modes: automatic (AUTO CHCKWEI-yes) or semi-automatic (AUTO CHCK WEI-no). Remote transmission (ENAB REMOTE) and an audit detail (ENAB REALTX) can also be activated using this function. **Operation** 1. Press the CONFIGURE key to enter the 2nd level menu, then scroll to “CFG APPLIC. VAR” and press the ENTER key. 2. The PK280SS prompts: “ENAB REMOTE Y/N” Enabling remote transmission allows you to send the PLU’s and attributes to the PK280SS via a PC. Enter a “Y” if you want port 2 to be bidirectionally hooked up to a Host PC for remote transmission of PLU data to and from the PK280SS or enter an “N” if you do not want to hook up the PC and press the ENTER key. Refer to *Appendix E, REMOTE ACCESS TRANSMISSION*, p. 9-28 for detailed operation. 3. The PK280SS prompts: “AUTOCHKWEI Y/N” Enter a “Y” if you want automatic checkweighing or enter an “N” if you want semi-automatic checkweighing and press the ENTER key. In the AUTOMATIC mode, a label can be generated only if the weight is within the acceptable tolerance range for the particular PLU. If the product is either under or above tolerance, no label is printed. In the SEMI-AUTOMATIC mode, if the product has an acceptable weight, a label is also automatically printed. If the product is either under or above tolerance, the operator can print a label by pressing the ENTER key. 4. The PK280SS prompts: “ENAB REALTX Y/N” Enter a “Y” and press the ENTER key if you want real time transmission. If real time transmission is enabled, every time a box label is printed the same information is sent to port 2. This may be used for an audit detail to another printer or sent to a PC for further data processing.	**Menu** ENAB REMOTE AUTOCHKWEI ENAB REALTX

CONFIGURE MENU	DESCRIPTION AND OPERATION	CHOICES
PRINT PK280SS CFG	**Description** The PK280SS can send the configuration data to port 2. This function gives you the entire configuration setup which is useful when adding new hardware. It is also helpful as a troubleshooting tool for checking the setup of your printed labels and reports. It prints the page configuration setup which helps when making label changes. Activate this function as a last step in the configuration setup and keep the printout with the PK280SS manual. Note: Configure the printer correctly before using this command (see *Configure Printer*, p. 4-12). **Operation** 1. Press the CONFIGURE key to enter the 2nd level menu, then scroll to “PRINT PK280SS CFG” and press the ENTER key to begin printing the PK280SS configuration through port 2.	

5. APPLICATION KEYS

The top row of keys are APPLICATION keys. These keys are used for daily operations and are factory programmed for your application. A detailed description of each key and its operation in the standard Box Label Program begins on page 5-3.

To start the weighing and label printing operation.

Start

To print a pallet subtotal or pallet total label.

Print Pallet Label

To key in (enter) the gross weight.

Keyed Gross Wt

To void the last printed box label.

Void

To print a PLU total, file description, or fixed data report.

Report

SCROLLING MENU

- PRINT PLU TOTALS p. 5-6
- PRINT PLU FILE p. 5-6
- PRINT FIXED REPORT p. 5-6

Operational Mode

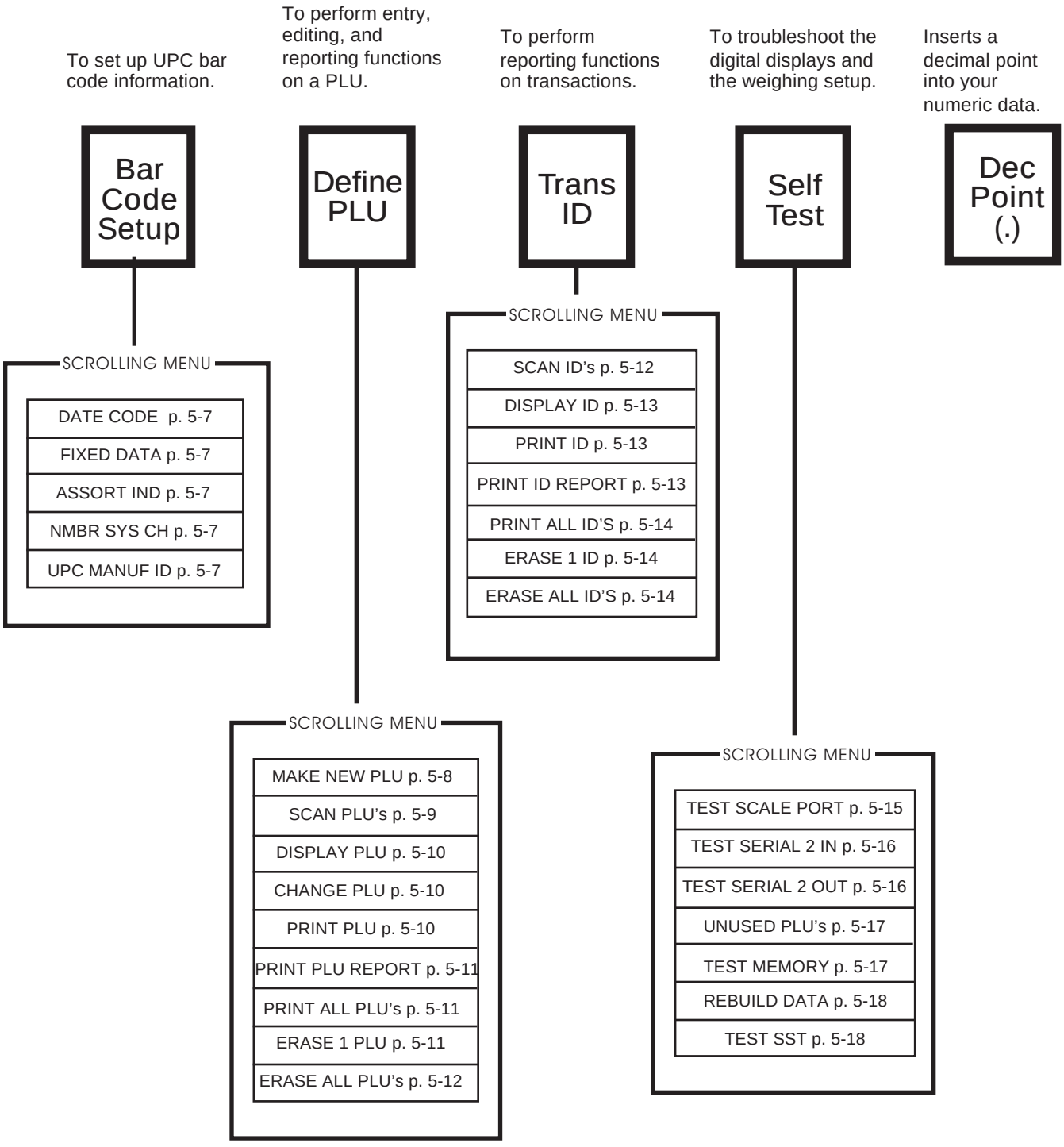
After the START key is pressed, you are in the OPERATIONAL mode and ready to start your box weighing operation. In the OPERATIONAL mode, you can enter a PLU number from the keypad or scan in a bar code.

The display legends that may appear while the PK280SS is in the OPERATIONAL mode are as follows:

CBY	=	count-by error
-G-	=	not in gross mode
-I-	=	scale inhibit
ID(XXXXX)	=	UPC product code
-M-	=	scale in motion
NEG	=	weight below zero
OV	=	over tolerance
R	=	ready to start checkweighing
-U-	=	undefined units
UN	=	under tolerance

Idle Mode

This mode is used to set up the PK280SS for your specific weighing application. When not in the OPERATIONAL mode, you are in the IDLE mode.


To set up UPC bar code information.
To perform entry, editing, and reporting functions on a PLU.
To perform reporting functions on transactions.
To troubleshoot the digital displays and the weighing setup.
Inserts a decimal point into your numeric data.
Bar Code Setup
Define PLU
Trans ID
Self Test
Dec Point (.)
SCROLLING MENU
DATE CODE p. 5-7
FIXED DATA p. 5-7
ASSORT IND p. 5-7
NMBR SYS CH p. 5-7
UPC MANUF ID p. 5-7
SCROLLING MENU
SCAN ID's p. 5-12
DISPLAY ID p. 5-13
PRINT ID p. 5-13
PRINT ID REPORT p. 5-13
PRINT ALL ID'S p. 5-14
ERASE 1 ID p. 5-14
ERASE ALL ID'S p. 5-14
SCROLLING MENU
MAKE NEW PLU p. 5-8
SCAN PLU's p. 5-9
DISPLAY PLU p. 5-10
CHANGE PLU p. 5-10
PRINT PLU p. 5-10
PRINT PLU REPORT p. 5-11
PRINT ALL PLU's p. 5-11
ERASE 1 PLU p. 5-11
ERASE ALL PLU's p. 5-12
SCROLLING MENU
TEST SCALE PORT p. 5-15
TEST SERIAL 2 IN p. 5-16
TEST SERIAL 2 OUT p. 5-16
UNUSED PLU's p. 5-17
TEST MEMORY p. 5-17
REBUILD DATA p. 5-18
TEST SST p. 5-18

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
START AUTOMATIC MODE (scale gross weight) Note: The PLU data for your application must be entered and stored into memory before using the START key to begin weighing operations (see *DEFINE PLU*, p. 5-8).	**Description** After the START key is pressed,the PK280SS goes into the OPERATIONAL mode and you are ready to start your box weighing operation. There are two OPERATIONAL modes: AUTOMATIC and SEMI-AUTOMATIC. The AUTOMATIC and SEMI-AUTOMATIC modes are discussed below. REMOTE transmission is discussed in *Appendix E*, p. 9-28. (To change from automatic to semi-automatic see *Configure Application Variables*, p. 4-25.) **Operation** 1. Press the START key. The PK280SS prompts: "ENTER PLU NO." Enter a pre-stored PLU number with the keyboard or a bar code scanner and press the ENTER key. The PK280SS will display the PLU, UPC product code, and R, for ready (e.g., the display reads: "001 ID 12345 R"). This built-in safety feature gives the operator an opportunity to verify the PLU and UPC product code before printing. If the PLU is not found, the PK280SS displays "PLU NOT FOUND". In that case, press the CLEAR ENTRY key and begin the process again. If it still does not work, go to *Define PLU,* section, p. 5-8 to store the PLU data in memory. 2. If the lower setpoint has been defined, and the weight is less than or equal to that lower setpoint, the display reads "UN". If the weight is greater than or equal to the defined upper setpoint, the display reads "OV". (To set the lower and upper setpoints, see the *MAKE NEW PLU* section, p. 5-8). The operator will adjust the load or amount of product until the weight is in tolerance and a label is automatically printed. Note: If the upper and lower tolerances have not been specified, the ENTER key must be pressed to print a label. Pressing the R key at the PLU prompt will reprint the last box or total label. 3. The PK280SS prompts: "REMOVE WEIGHT" Remove the load and add a new load, or press the CLEAR ENTRY key to exit the OPERATIONAL mode. Note: At any point in the weighing operation the operator may select a new PLU by keying it in at the ready prompt (e.g., the display reads: "001 ID 12345 R") and pressing the ENTER key. The new PLU will appear along with the relevant UPC product code for the operator's verification. Press the ENTER key to begin weighing again. The PK280SS will remember the box count of the previous PLU, and if the operator returns to this PLU, the box count will resume where it left off unless a pallet total label was printed, which clears the box count for that PLU.	**Display Legend** CBY = count-by error -G- = not in gross mode -I- = scale inhibit ID = UPC product code -M- = scale in motion NEG = weight below zero OV = over tolerance R = ready to start weighing -U- = undefined units UN = under tolerance **Note:** **It is important to key in the new PLU before the new product is placed on the scale. This will prevent printing an incorrect product label.**

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
START (cont.) SEMI-AUTOMATIC MODE (scale gross weight) Note: The PLU data for your application must be entered and stored into memory before using the START key to begin weighing operations (see *DEFINE PLU*, p. 5-8).	**Operation** 1. Press the START key. The PK280SS prompts: "ENTER PLU NO." Enter a pre-stored PLU number with the keyboard or bar code scanner, and press the ENTER key. The PK280SS will display the PLU, UPC product code, and R, for ready (e.g., the display reads: "001 ID 12345 R"). This built-in safety feature gives the operator an opportunity to verify the PLU and UPC product code before printing. If the PLU is not found, the PK280SS displays "PLU NOT FOUND". Press the CLEAR ENTRY key and begin the process again. If it still doesn't work, go to the *Define PLU* section, p. 5-8 to store the PLU data in memory. 2. Press the ENTER key again. The numeric display monitors the weight. When the trip level is reached and motion settles, the PK280SS determines if the load is under, acceptable, or over tolerance. If the weight is within tolerance, a label is automatically printed. If the lower setpoint has been defined and the weight is less than or equal to that lower setpoint, the display reads "UN". If the weight is greater than or equal to the upper setpoint, the display reads "OV". (To set the lower and upper setpoints see the *DEFINE PLU,* section, p. 5-8). The operator will adjust the load or amount of product until the weight is in tolerance and a label is automatically printed, or press the ENTER key to print a label regardless of the status of the weight. Note: If the upper and lower tolerances have not been specified, the ENTER key must be pressed to print a label. Pressing the R key at the PLU prompt will reprint the last box or total label. 3. The PK280SS prompts: "REMOVE WEIGHT" Remove the load and add a new load, or press the CLEAR ENTRY key to exit the OPERATIONAL mode. Note: At any point in the weighing operation the operator may select a new PLU by keying it in at the ready prompt (e.g., the display reads: "001 ID 12345 R") and pressing the ENTER key. The new PLU will appear along with the UPC product code for the operator's verification. Press the ENTER key to begin weighing again. The PK280SS will remember the box count of the previous PLU, and if the operator returns to this PLU, the box count will resume where it left off unless a pallet total label was printed, which clears the box count for that PLU.	**Display Legend** CBY = count-by error -G- = not in gross mode -I- = scale inhibit ID = UPC product code -M- = scale in motion NEG = weight below zero OV = over tolerance R = ready to start weighing -U- = undefined units UN = under tolerance **Note:** **It is important to key in the new PLU before the new product is placed on the scale. This will prevent printing an incorrect product label.**

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
PRINT PALLET LABEL	**Description** The PRINT PALLET LABEL key prints either a pallet subtotal or pallet total label. See label samples, p. 4-22, 4-23. This key will operate in either the IDLE or OPERATIONAL modes, as detailed below. **Operation** If the PK280SS is in the **IDLE** mode and the PRINT PALLET LABEL key is pressed, a. The PK280SS prompts: "ENTER PLU NO." Enter a pre-stored PLU and press ENTER. b. The PK280SS prompts: "TOTAL/SUB T/S" Press "S" to print a subtotal label or press "T" to print a pallet total label. The pallet total option clears the pallet box count, the pallet actual net weight, and the pallet printed net weight. Report totals, however, will include all data. **OR** If the PK280SS is in the **OPERATIONAL** mode and the PRINT PALLET LABEL key is pressed, the PK280SS prints the subtotal pallet label of the current active PLU. A pallet total label is automatically printed while in the OPERATIONAL mode when the number of boxes actually weighed equals the boxes-per-pallet number entered into the memory.	
KEYED GROSS WT	**Description** The KEYED GROSS WEIGHT key allows you to key in the gross weight and override the weight shown on the PK280SS when it is in the OPERATIONAL mode. **Operation** 1. When the KEYED GROSS WEIGHT key is pressed, The PK280SS prompts: "KGROSS WT" Enter the gross weight and press the ENTER key. If the calculated net weight (based on the stored tare value for the selected PLU) is not negative, a box label is printed.	

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
VOID	**Description** The VOID key voids the last BOX LABEL printed, unless the last label printed was a pallet total label. It updates the PLU totals, pallet totals, and the transaction report totals by deleting the last box label transaction. This key may be used whether or not transaction storage is enabled. The VOID key operates in either the IDLE or OPERATIONAL modes. The VOID key will affect the reports if the last label generated was a pallet total or subtotal label. **Operation** 1. Press the VOID key to void the last printed BOX LABEL. The display momentarily will read “VOID Y/N”. The default is “N”. Press “Y” to void. The display will return to the last display before the VOID key was pressed.	
REPORT	**Description** The REPORT key will activate a print menu. This menu selection allows the operator to print the PLU totals report (all PL’’s in memory), print the PLU file description (attributes), or print the bar code set up (PRINT FIXED REPORT). See a sample of each report in the *Appendix A*, p. 9-1. **Operation** 1. Press the REPORT key. Press the CONTINUE key to scroll to the desired report and press the ENTER key. If you chose the PRINT PLU TOTALS report: The PK280SS prompts: “TOTAL/SUB T/S” “S” for subtotal report is the default setting. Press the ENTER key to print a subtotal report (will not erase totals), or enter a “T” to print a pallet total report (erases totals) and press the ENTER key. Choosing PRINT PLU FILE or PRINT FIXED REPORTS, then pressing the ENTER key will automatically send the reports to the report printer.	**Menu** PRINT PLU TOTALS PRINT PLU FILE PRINT FIXED RE-PORT

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
BAR CODE SETUP	**Description** The BAR CODE SETUP key allows you to enter the UPC manufacturer ID and other information to print with each bar code. **Operation** 1. Press the BAR CODE SETUP key. a. The PK280SS prompts: "DATE CODE" Enter up to 25 characters for the date code (e.g., Julian date code or other fixed date code) and press the ENTER key. This date will override the existing internal date for label printing. If no date code is entered, the internal date of the PK280SS will be printed in the standard format on the label. b. The PK280SS prompts: "FIXED DATA" Enter up to 25 characters of information that will be printed on each label and press the ENTER key. An example of the information could be a company name that would appear on every label. c. The PK280SS prompts: "ASSORT IND" Enter 1 digit for the **assortment indicator** and press the ENTER key. Typically, this number is "2" for random weight case labels. d. The PK280SS prompts: "NMBR SYS CH" Enter 2 digits for the **number system characters** and press the ENTER key. Typically, this number is "00" for random weight case labels. e. The PK280SS prompts: "UPC MANUF ID" Enter 5 digits for the UPC **manufacturer ID** and press the ENTER key. The manufacturer ID is assigned by the Universal Code Council (UCC) and specifies the manufacturer for the product.	

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
DEFINE PLU	**Description** The DEFINE PLU key allows you to make a new PLU set up, check PLU's already in memory, change attributes of a PLU, print out, or erase PLU's. **Operation** Press the DEFINE PLU key. Press the CONTINUE key to scan the menu, and press ENTER to select a menu.	**Menu** MAKE NEW PLU SCAN PLU'S DISPLAY PLU CHANGE PLU PRINT PLU PRINT PLU REPORT PRINT ALL PLU'S ERASE 1 PLU ERASE ALL PLU'S
1. MAKE NEW PLU	**Description** This function is a necessary step to set up the PLU's. You will be prompted to enter ten attributes (i.e., UPC ID, description 1 and 2, tare, lower and upper tolerances, boxes per pallet, fixed weight, and address) associated with each PLU number. You don't have to enter data for each field. Just press the ENTER key to skip over a field. **Operation** 1. Press the DEFINE PLU key to enter the menu, then press the ENTER key when the display shows "MAKE NEW PLU". a. The PK280SS prompts: "ENTER PLU NO." Enter up to 3 digits for the new PLU number and press the ENTER key. You will be prompted through the following steps b through j. If the PLU had been previously defined, the display will read "PLU NOT NEW". Press the ENTER key to get back to the MAKE NEW PLU prompt. b. The PK280SS prompts: "UPC ID" Enter up to 5 digits for the UPC **product code** and press the ENTER key. The UPC product code is assigned by the manufacturer to represent their product. In a UPC shipping container symbology bar code, the last 6 digits represent the 5-digit UPC product code, followed by a single-digit check. c. The PK280SS prompts: "DESC1" Enter up to 26 characters for **description 1** and press the ENTER key. This will be printed in the description field of the standard label. d. The PK280SS prompts: "DESC2" Enter up to 26 characters for **description 2** and press the ENTER key. This will be printed in the description field of the standard label.	**Organizational Tip** Make a print out of the new PLU attributes to keep on file. Use the REPORT key and PRINT PLU FILE to generate this list (see *Report*, p. 5-6).

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
DEFINE PLU (cont.) 1. MAKE NEW PLU (cont.)	e. The PK280SS prompts: "TARE" Enter up to 6 digits for the tare weight and press the ENTER key. f. The PK280SS prompts: "LOWER TOL" Enter up to 6 digits for the lower setpoint and press the ENTER key. g. The PK280SS prompts: "UPPER TOL" Enter up to 6 digits for the upper setpoint and press the ENTER key. Note: If the lower and upper tolerances are defined at zero, the operator will have to press the ENTER key to print a label. h. The PK280SS prompts: "BOX/PLT" Enter up to 4 digits for the number of boxes per pallet and press the ENTER key. i. The PK280SS prompts: "FIXED WT" Enter up to 6 digits for the weight to be printed on the labels and press the ENTER key. This value will override the weight value coming from the scale. j. The PK280SS prompts: "ADDRESS" Enter up to 26 characters for the address information you want to print on each box label and press the ENTER key. The address information might contain the name of a company or city where the product originated, etc. This feature is often used to customize private label products.	**Lower and Upper Tolerances** The tolerances are used in two ways: 1) When the product being labeled must fall within a certain tolerance. The PK280SS will control label printing by prompting the operator when the product is over or under the tolerance range. 2) By defining broad tolerance levels, label printing can be made automatic.
2. SCAN PLU'S	**Description** This function scans through all the PLU's in memory. **Operation** 1. Press the DEFINE PLU key to enter the menu, then press the ENTER key when the display shows "SCAN PLU'S". The PK280SS displays the first PLU number in memory. Press CONTINUE to scan the PLU list. If there are no PLU's in memory, the display will continue to read "SCAN PLU'S".	

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
DEFINE PLU (cont.) 3. DISPLAY PLU	**Description** This function displays the attributes associated with a PLU. **Operation** 1. Press the DEFINE PLU key to enter the menu, then press the ENTER key when the display shows “DISPLAY PLU”. The PK280SS prompts: “ENTER PLU NO.” Enter the PLU number that you want to view and press the ENTER key. Press the CONTINUE key to view each attribute and the totals of the PLU record.	
4. CHANGE PLU	**Description** This function allows you to change one or more attributes associated with a PLU. **Operation** 1. Press the DEFINE PLU key to enter the menu, then press the ENTER key when the display shows “CHANGE PLU”. The PK280SS prompts: “ENTER PLU NO.” Enter the PLU to be edited. Press the CONTINUE key to find the attribute to be changed, and key in the new data for each attribute. Press the ENTER key after keying in the new attribute information. This action stores the new information in memory and erases the previously stored attribute.	
5. PRINT PLU	**Description** This function allows you to print the attributes and totals associated with a PLU. See a sample report on p. 9-2. **Operation** 1. Press the DEFINE PLU key to enter the menu, then press the ENTER key when the display shows “PRINT PLU”. The PK280SS prompts: “ENTER PLU NO.” Enter the PLU number to be printed. The PK280SS sends the PLU to serial port 2.	

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
DEFINE PLU (cont.) 6. PRINT PLU REPORT	**Description** This function prints a subtotal (S) or total (T) report associated with a PLU. The default value is "S", and this will not erase the PLU totals. A "T" erases the PLU totals. **Operation** 1. Press the DEFINE PLU key to enter the menu, then press the ENTER key when the display shows "PRINT PLU REPORT". The PK280SS prompts: "TOTAL/SUB T/S" Press the CONTINUE key or ENTER key to print a subtotal report (will not erase totals), or enter a "T" to print a total report (erases totals) and press the CONTINUE key or ENTER key. See a sample report on p. 9-2.	
7. PRINT ALL PLU'S	**Description** This function prints all the PLU's stored in memory, along with their associated attributes and totals. **Operation** 1. Press the DEFINE PLU key to enter the menu, then press the ENTER key when the display shows "PRINT ALL PLU'S". The PK280SS prompts: "CONT - PRINT ALL" Press the CONTINUE key to print all the PLU's in memory, along with their attributes and totals. The report contains the same information as the PRINT PLU command, but it is an extended version to include all PLU's. See a sample report on p. 9-2.	
8. ERASE 1 PLU Warning! Once a PLU is erased from the memory it cannot be retrieved.	**Description** This function erases a PLU from memory. **Operation** 1. Press the DEFINE PLU key to enter the menu, then press the ENTER key when the display shows "ERASE 1 PLU". The PK280SS prompts: "ENTER PLU NO." Enter the PLU number to be erased and press ENTER.	

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
DEFINE PLU (cont.) 9. ERASE ALL PLU'S Warning! Once the PLU's are erased from memory they cannot be retrieved.	**Description** This function erases all PLU's stored in memory. **Operation** 1. Press the DEFINE PLU key to enter the menu, then press the ENTER key when the display shows "ERASE ALL PLU'S". The PK280SS prompts: "ERASE ALL (Y/N)" "N" is the default setting (will not erase PLU's). Enter a "Y" to erase all PLU's, attributes, and totals in storage, then press the ENTER key.	
TRANSACTION ID	**Description** This function keeps a sequential count of each weighing transaction, and prints a report showing individual transactions, or a total of all transactions. If the transaction storage is enabled, the transaction report is stored in memory. The memory will fill after time, and a transaction total report should be generated to clear the memory space. (To enable or disable the transaction record see the *Configure ID's* section, p. 4-24). **Operation** 1. Press the TRANSACTION ID key. Press the CONTINUE key to scan the menu and press ENTER to select a menu.	**Menu** SCAN ID'S DISPLAY ID PRINT ID PRINT ID REPORT PRINT ALL ID'S ERASE 1 ID ERASE ALL ID'S
1. SCAN TRANS'S	**Description** This function scans through all the TRANSACTION ID's in memory. **Operation** 1. Press the TRANSACTION ID key to enter the menu, then press the ENTER key when the display shows "SCAN ID'S". The PK280SS displays the first TRANSACTION ID number in memory. Press CONTINUE to scan the TRANSACTION ID list. If there are no transactions in memory, the display will continue to read "SCAN ID'S".	

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
TRANSACTION ID (cont.) 2. DISPLAY TRANS'S	**Description** This function displays each attribute associated with a TRANSACTION ID. **Operation** 1. Press the TRANSACTION ID key to enter the menu, then press the ENTER key when the display shows "DISPLAY ID". The PK280SS prompts: "ENTER TRANS" Enter up to 3 digits for the transaction number and press the ENTER key.	
3. PRINT TRANS'S	**Description** This function allows you to print the transaction records associated with a TRANSACTION ID to the report printer (port 2). **Operation** 1. Press the TRANSACTION ID key to enter the menu, then press the ENTER key when the display shows "PRINT ID". The PK280SS prompts: "ENTER TRANS" Enter the TRANSACTION ID number to be printed. Press the ENTER key. The PK280SS sends the TRANSACTION ID data to the report printer. See a sample report on p. 9-3.	
4. PRINT TRS REPORT	**Description** This function prints a subtotal (S) or total (T) report associated with a TRANSACTION ID to the report printer (port 2). The default value is "S", and this will not erase the TRANSACTION ID totals. A "T" erases the TRANSACTION ID totals. **Operation** 1. Press the TRANSACTION ID key to enter the menu, then press the ENTER key when the display shows "PRINT ID REPORT". The PK280SS prompts: "TOTAL/SUB T/S" Press the CONTINUE key or ENTER key to print a subtotal report (will not erase totals), or enter a "T" to print a total report (erases totals) and press the CONTINUE key or ENTER key. See a sample subtotal report on p. 9-3.	

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
TRANSACTION ID (cont.) 5. PRINT ALL TRANS'S	**Description** This function prints all the TRANSACTION ID's and all their attributes stored in memory to the report printer (port 2). **Operation** 1. Press the TRANSACTION ID key to enter the menu, then press the ENTER key when the display shows "PRINT ALL ID'S". The PK280SS prompts: "CONT - PRINT ALL" Press the CONTINUE key or ENTER key to print all TRANSACTION ID's in memory. The report contains the same information as the PRINT TRANS'S command, but it is an extended version to include all transactions. See a sample report on p. 9-3.	
6. ERASE 1 TRAN'S **Warning!** Once a TRANSACTION ID is erased from memory it cannot be retrieved. This will not affect the totals.	**Description** This function erases a TRANSACTION ID from memory. **Operation** 1. Press the TRANSACTION ID key to enter the menu, then press the ENTER key when the display shows "ERASE 1 ID". The PK280SS prompts: "ENTER TRANS" Enter up to 5 digits for the TRANSACTION ID number you wish to erase, then press ENTER.	
7. ERASE ALLTRANS'S **Warning!** Once the TRANSACTION ID's are erased from memory they cannot be retrieved. This will not affect the totals.	**Description** This function erases all of the TRANSACTION ID's stored in memory. **Operation** 1. Press the TRANSACTION ID key to enter the menu, then press the ENTER key when the display shows "ERASE ALL ID'S". The PK280SS prompts: "ERASE ALL (Y/N)" "N" is the default setting (will not erase TRANSACTION ID's). Enter a "Y" to erase all of the TRANSACTION ID's in memory and press the ENTER key.	

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
SELF TEST	**Description** The SELF TEST menu is commonly used as a diagnostic and troubleshooting tool for understanding the keyboard and program. **Operation** 1. Press the SELF TEST key to access the self test diagnostics menu. Press the CONTINUE key to scroll through the menu and press the ENTER key to select a menu item.	**Menu** TEST SCALE PORT TEST SERIAL 2 IN TEST SERIAL 2 OUT UNUSED PLU'S TEST MEMORY REBUILD DATA TEST SST
1. TEST SCALE PORT	**Description** This function tests the scale input port for data and data framing errors. You can view the continuous flow of scale data on the display as it enters the PK280SS. Use the TEST SCALE PORT function if the scale data does not appear on the PK280SS display upon installation and use the table below as a troubleshooting reference. **Operation** 1. Press the SELF TEST key to enter the menu, then press the ENTER key when the PK280SS displays "TEST SCALE PORT". Use the CONTINUE key to scroll the menu. a. Press the ENTER key when the display shows "DISPLAY DATA" Press the ENTER key to see the scale data as it is received. Press the ENTER key again to get back to the menu. b. Press the ENTER key when the display shows "DISPLAY ERRORS" Press the ENTER key to see framing errors, parity errors and overrun errors. Press the ENTER key again to get back to the menu.	**Menu** DISPLAY DATA DISPLAY ERRORS **Example: Display Errors** The display reads: PE=0 FE=0 When there are no parity or framing errors.

TEST	SYMPTOM	PROBABLE CAUSE
DISPLAY DATA	No data appears.	Wiring between the PK280SS and the scale indicator is incorrect. The PK280SS RS232/Current loop jumper is in the wrong position. (Refer to *Wiring List*, p 9-26.)
DISPLAY DATA	No weight is displayed, however, there is a continuous flow of data during the above DATA DISPLAY test.	The configured baud rate is incorrect. (To change the baud rate see the *Configure Serial Port* section, p. 4-10.)
DISPLAY ERRORS	Parity errors (PE) or framing errors (FE).	The configured data format is incorrect. (To change the data format see the *Configure Serial Port* section, p. 4-10.)

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
SELF TEST (cont.) 2. TEST SERIAL 2 IN	**Description** This function tests serial port 2 for data received from the bar code scanner or a host PC or computer, if there is one in use. **Operation** 1. Press the SELF TEST key to enter the menu, then press the ENTER key when the PK280SS displays “TEST SERIAL 2 IN”. The PK280SS prompts: “RX 2 IN” Press the ENTER key. You will be able to view a continuous flow of data on the display as it enters serial port 2. If you are transmitting from a PC, you can send one character at a time and see it scroll across the display. 2. Press the CLEAR ENTRY key to exit this test.	
3. TEST SERIAL 2 OUT	**Description** This function tests serial port 2 for data transmitted from the PK280SS. **Operation** 1. Press the SELF TEST key to enter the menu, then press the ENTER key when the PK280SS displays “TEST SERIAL 2 OUT”. The PK280SS prompts: “ENTER TEST DATA” Enter up to 16 characters of data and press the ENTER key. The PK280SS transmits the test data out of serial port 2. 2. Press the ENTER key to re-transmit the test data or press the CONTINUE key to enter new test data. 3. Press the CLEAR ENTRY key to exit the function.	

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
SELF TEST (cont.) 4. UNUSED PLU'S	**Description** This function displays the number of used (stored PLU's) and unused memory locations. **Operation** 1. Press the SELF TEST key to enter the menu, then press the ENTER key when the PK280SS displays "UNUSED PLU'S". The PK280SS numeric display reads: "USE NNN", where NNN is the number of used memory locations. **AND** The PK280SS alpha display reads: "UNUSED PLU'S NNN", where NNN is the number of unused memory locations.	
5. TEST MEMORY	**Description** This function tests the PK280SS RAM memory. **Operation** 1. Press the SELF TEST key to enter the menu, then press the ENTER key when the PK280SS displays "TEST MEMORY". The PK280SS displays: "TESTING MEMORY", while the memory test is in progress. The PK280SS displays: "64K MEMORY OK" or "96K MEMORY OK" (with expanded memory) If a memory error is detected the PK280SS displays the number of good blocks (e.g., "72K MEMORY OK").	

APPLICATION KEYS	DESCRIPTION AND OPERATION	CHOICES
SELF TEST (cont.) 6. REBUILD DATA	**Description** This function attempts to repair corrupted PLU data. Use this function if the PK280SS locks up when accessing PLU or transaction data. **Operation** 1. Press the SELF TEST key to enter the menu, then press the ENTER key when the PK280SS displays “REBUILD DATA”. a. The PK280SS prompts: “DATA RECOVERY” “N” is the default setting (will not rebuild data). Press the “Y” key and the ENTER key to rebuild data. b. The PK280SS prompts: “ARE YOU SURE” “N” is the default setting (will not rebuild data). Press the “Y” key and then the ENTER key to REBUILD the PLU data files.	
7. TEST SST	**Description** This function tests the Survivor SST printer. You will be able to enter data that will be printed on a label by the Survivor SST. **Operation** 1. Press the SELF TEST key to enter the menu, then press the ENTER key when the display shows “TEST SST”. The PK280SS prompts: “ENTER TEST DATA” Enter up to 16 characters of data and press the ENTER key. The Survivor SST will print out the data you entered. 2. Press the ENTER key to re-transmit the test data or press the CONTINUE key to enter new test data. 3. Press the CLEAR ENTRY key to exit this test.	

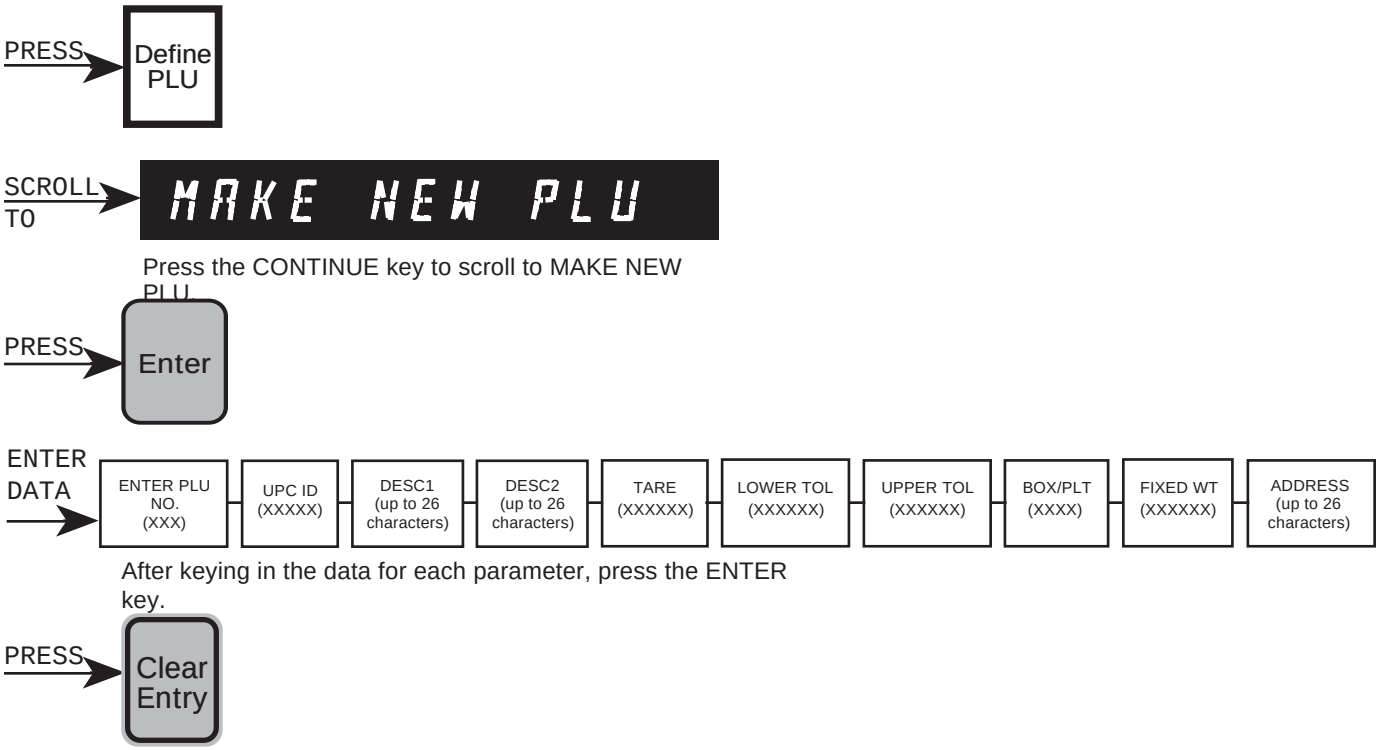
6. BOX LABEL PROGRAM APPLICATION — QUICK START GUIDE

The Box Label Program is a checkweighing operation in which PLU's (Product Look-Ups) are keyed into memory or scanned in with a bar code scanner. In operation, the PK280SS uses those PLU's to classify a scale weight as UNDER, ACCEPTABLE, or OVER, then generates a box label when the weight on the scale meets the current PLU requirements. If weight tolerances are not specified for the current PLU, the operator must press the ENTER key to print a label. Net product weights are accumulated in memory for reporting totals. Pallet labels are automatically generated when the specified number of boxes per pallet is met.

PLU AND BAR CODE SET UP

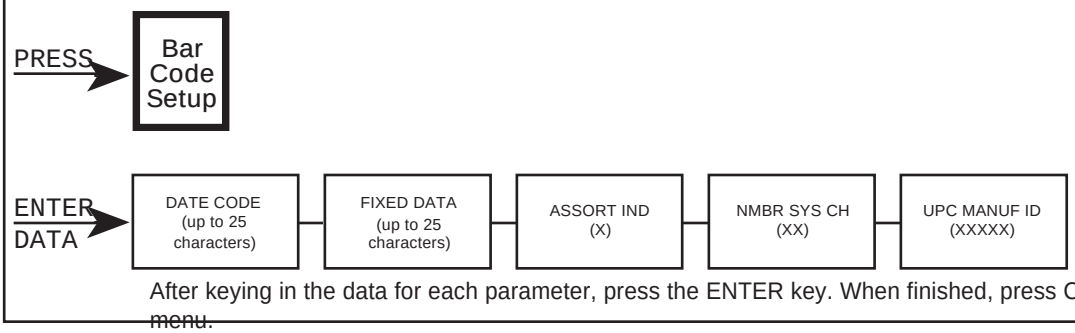
DEFINE PLU'S

Use the Define PLU key to create a new PLU or to identify a pre-stored PLU in memory. To create a PLU file follow the steps below. If you already have pre-stored PLU's, skip to STEP 1 START WEIGHING. **NOTE: If this is a new installation, use the initialization process described in section 3-1 to clear all memory before defining new PLU's.**



BAR CODE SETUP

Use the Bar Code Setup key to enter information that will be printed with each bar code. To create a bar code perform the process below. If you already have pre-stored bar codes, skip to STEP 1 START WEIGHING.



STEP 1 - START WEIGHING

PRESS → Start

DISPLAY READS → ENTER PLU NO.

KEY IN PLU (3-DIGITS) OR SCAN PLU BAR CODE → 0 1 2 3 4 5 6 7 8 9

After keying-in or scanning press the ENTER key.

VERIFY PLU AND PRESS → Enter

LOAD SCALE

IF WEIGHT IS IN TOLERANCE, LABEL IS PRINTED → UNLOAD SCALE AND ADD NEW LOAD.

IF WEIGHT IS OVER OR UNDER TOLERANCE → ADJUST LOAD ON THE SCALE UNTIL IT IS WITHIN TOLERANCE AND THE LABEL IS PRINTED. UNLOAD SCALE AND ADD NEW LOAD.

OR PRESS → Review OR Enter

Press the REVIEW key (reject transaction, no label printed) or press the ENTER key (accept transaction and automatically print label). This feature is only available in the SEMI-AUTOMATIC mode (pg. 4-25).

OPTIONS → Keyed Gross Wt

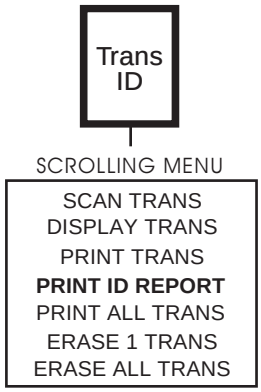
To override the displayed weight press the KEYED GROSS WT key, enter a weight from the keypad, and press the ENTER key to print a label.

PRESS → Clear Entry

(Exit the OPERATIONAL mode, no label printed.)

STEP 2 - PRINTING OPTIONS

Totaling and reporting options may be selected at any time during the operation. The reports will be sent to the report printer (port 2). A summary of the options follow.

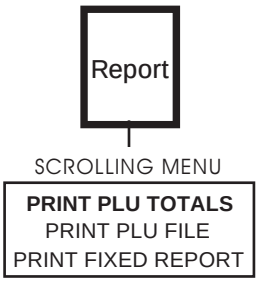



```
SUBTOTALS TRANSACTION REPORT
TOTALS TRANSACTION REPORT
```

Press the TRANSACTION key, scroll to the PRINT ID REPORT menu selection, and press the ENTER key. The default is “S” for subtotal. Press the ENTER key to print a subtotal transaction report (will not erase totals), or enter a “T” to print a transaction totals report (erases totals) and press the ENTER key.


```
PALLET LABEL FOR PARTIAL PALLET
```

Press the PRINT PALLET LABEL key to generate a pallet subtotal label, if required out of the normal operating sequence. A pallet total label is automatically printed when the PLU-defined number of boxes per pallet equals the number of boxes actually weighed.



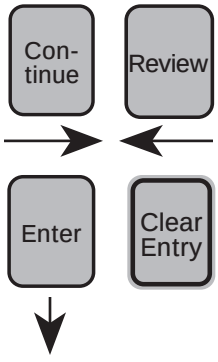

```
SUBTOTALS PLU REPORT
TOTALS PLU REPORT
```

Press the REPORT key, scroll to the PRINT PLU TOTALS menu selection, and press the ENTER key. The default is “S” for subtotal. Press the ENTER key to print a subtotal PLU report (will not erase totals), or enter a “T” to print a pallet total PLU report (erases totals) and press the ENTER key.

NOTE: The TRANSACTION ID and REPORT keys may be password protected.

Scrolling Menu and Direction Keys

A scrolling menu is a list of operations that are viewed on the digital display and sometimes require a data entry. After an APPLICATION key is pressed, four keys put you in control of the scrolling menu system: CONTINUE, REVIEW, ENTER, and CLEAR ENTRY.



Use the CONTINUE key for scanning a “scrolling menu” and skipping past data entries. Use this key to confirm your data entries before storing data in memory.

Use the REVIEW key to scroll a menu backwards and for reviewing previous data entries.

Use the ENTER key to select a menu item and to complete a data entry.

Use the CLEAR ENTRY key to exit from a menu and to terminate the weighing process.

DAILY OPERATIONS

Press the START key, enter a PLU number, and press the ENTER key. Place the product on the scale and press the ENTER key again.

In the AUTOMATIC mode, if the product has an acceptable weight, a label is automatically printed. If the product is either under or above tolerance, no label is printed. Note: If the tolerances are not specified, the operator must press the ENTER key to print a label.

In the SEMI-AUTOMATIC mode, if the product has an acceptable weight, a label is also automatically printed. If the product is either under or above tolerance, the operator has the power to accept or reject the weight. Press the REVIEW key to reject the weight with no label printed, or press the ENTER key to print a box label regardless of the weight.

During the weighing process, you have the option of overriding the displayed product weight by using the KEYED GROSS WEIGHT key. Press the KEYED GROSS WT key, enter a weight via the keypad, and press the ENTER key to print a label.

Remove the box from the scale, enter a new PLU if required, and add another box to the scale.

The VOID key is used to remove the last transaction in the weighing process from the totals and audit report. The VOID key will remove the transaction from the totals only if the last label printed was not a pallet total label. Once the pallet total label is printed, the accumulated totals are automatically updated immediately.

A pallet total label is automatically printed when the number of boxes per pallet equals the number of boxes actually weighed. The default setting is zero, so no pallet label will be printed if a number is not entered when defining PLU's.

Note: At any point in the weighing operation the operator may select a new PLU by keying it in at the ready prompt and pressing the ENTER key. The new PLU will appear along with the UPC product code for the operator's verification (e.g., the display reads: "001 ID 12345 R"). Press the ENTER key to begin weighing again. The PK280SS will remember the box count of the previous PLU, and if the operator returns to this PLU, the box count will resume where it left off with the incomplete pallet.

DISPLAY CODES

The digital display codes in the OPERATIONAL mode:

CBY	=	count-by error
-G-	=	not in gross mode
-I-	=	scale inhibit
ID(XXXXX)	=	UPC product code
-M-	=	scale in motion
NEG	=	weight below zero
OV	=	scale overload
R	=	ready to start checkweighing
-U-	=	undefined units
UN	=	under tolerance

7. TROUBLESHOOTING GUIDE

SCALE INPUT ERROR (on power-up)	1. The PK280SS is set for RS232 input, but is jumpered for Current Loop Input and no idle current is detected (see the *Wiring Lists* section p. 9-26). 2. The signal wires may be reversed or connected to the wrong pins (see the *Wiring Lists* section p. 9-26). 3. The indicator may not be transmitting data (see the *Test Scale Port* section p. 5-15).
NO DISPLAY OR AUDIO (on power-up)	1. Check power cable. 2. Check fuse on back of PK280SS.
NO WEIGHT DISPLAY ON PK280SS	1. Check indicator cable. 2. Check the indicator transmit mode (e.g., Demand mode vs. Continuous mode) 3. Perform *Test Scale Port,* p. 5-15. 4. If there are no errors in *Test Scale Port*, the indicator may be sending the wrong data format or the PK280SS may be programmed for the wrong indicator (see the *Configure Serial Port* section, p. 4-10, and the *Configure Scale,* section p. 4-11).
SURVIVOR SST PRINTER DOES NOT PRINT (serial output port 1)	1. Check printer cable. 2. Make sure the baud rate and data format for printer and PK280SS are the same (see the *Configure Serial Port* section, p. 4-10). 3. Perform *Test SST,* p. 5-18. 4. Verify that the page is configured properly (see the *Configure Page* section, p. 4-14).
REPORT PRINTER DOES NOT PRINT (serial output port 2)	1. Check printer cable. 2. Make sure the baud rate and data format for printer and PK280SS are the same (see the *Configure Serial Port* section, p. 4-10). 3. Perform *Test Serial 2 Out,* p. 5-16.
MEMORY FULL (message on display)	1. Erase all transactions to regain memory space (see *Transaction ID: Erase All ID's* section, p.5-14). This happens most often when the transaction report is enabled (see the *Configure ID's* section p. 4-24). Also, the memory full message may be displayed when PLU memory is full. 2. Install expanded memory option.
THE PK280SS LOCKS UP	1. Turn the PK280SS off (wait 3 to 5 minutes) and then turn back on. 2. Verify that the PLU memory has not been corrupted. Scroll to the end of each PLU file (see the *Display PLU* section, p. 5-10). 3. If the PK280SS locks up while scrolling through the PLU's, rebuild the PLU memory (see the *Rebuild Data* section, p. 5-18).
GARBLED WORDS OR UNDESIRED RESULTS	1. Check the baud rate and data format (see the *Configure Serial Port* section, p. 4-10). 2. Initialize the PK280SS before use (see the *Initialize* section, p. 3-1).

8. REPLACEMENT PARTS AND WARRANTY

REPLACEMENT PARTS

Part no.	Description
15531	Custom 20 mA/RS-232C serial interface cable
16734	Power transformer
21043	Fluorescent display - 8 digits
21044	Fluorescent display - 16 characters
21045	Keypad - domed switch
21109	Keypad overlay - black/white/red
21047	Keyboard subchassis
21048	CPU/display with 32K
21049	CPU/display with 64K
21050	CPU/display with 96K
20542	Battery, NiCad 3.6V
16451	Fuse, Slo-Blo, .75A 3AG

WARRANTY

Seller warrants that the equipment sold hereunder will conform to written specifications, drawings, and other descriptions made by the manufacturer, including any modification thereof. The Seller warrants the equipment against faulty workmanship and defective materials. If any equipment fails to conform to these warranties, Seller will, as its sole and exclusive liability hereunder, repair or replace such goods if they are returned within twelve (12) months from the date of shipment from the manufacturer.

These warranties are made subject to the following conditions:

1) Upon discovery by Buyer of such nonconformity, Rice Lake Weighing Systems is given prompt written notice with a detailed explanation of the alleged deficiencies;
2) The equipment is returned to the Seller at the expense of the Buyer;
3) Examination of such equipment by the Seller discloses that the nonconformity actually exists and was not caused by accident, misuse, neglect, alteration, improper installation, improper or unauthorized repair, or improper testing;
4) Such equipment has not been modified, altered, or changed by any person other than the Seller or its duly authorized repair agents;
5) Rice Lake Weighing Systems will have a reasonable time to repair or replace the defective equipment.

THESE WARRANTIES EXCLUDE ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE SELLER WILL NOT IN ANY EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

IN ACCEPTING THIS WARRANTY, THE BUYER AGREES TO WAIVE ANY AND ALL OTHER CLAIM TO WARRANTY, OR IF SUCH BE THE CASE, ANY CLAIM OR WARRANTY FROM RICE LAKE WEIGHING SYSTEMS. SHOULD THE SELLER BE OTHER THAN RICE LAKE WEIGHING SYSTEMS, THE BUYER AGREES TO LOOK ONLY TO THE SELLER FOR WARRANTY CLAIMS.

No terms, conditions, understanding, or agreements purporting to modify the terms of this warranty shall be valid unless made in writing and signed by a corporate officer of Rice Lake Weighing Systems and the Buyer.

Rice Lake Weighing Systems, Inc., 230 West Coleman Street, Rice Lake, WI 54868
Tel.: (715) 234-9171 Direct Service Hotline: (715) 234-2003 Fax: 715-234-6967

9. APPENDICES

APPENDIX A - SAMPLE REPORTS

PRINT PALLET LABEL KEY

PALLET SUBTOTAL

```
**********
PLT S-TOT: 234LB
PLT S-CNT:100PC
**********
```

PALLET TOTAL

```
**********
PLT TOTAL : 234LB
PLT COUNT : 100PC
**********
```

REPORT KEY

PLU TOTALS - SUBTOTAL

PAGE 1 PLU NO.

PRODUCT TOTALS
03:49 PM 26 JUNE 95

PLU	UPC CODE	BOX COUNT	TOTAL NET WT	TOTAL PRINTED NET
127	12345	2	6.5	6.5 LB
321	87654	8	78.9	78.9 LB
789	23453	58	290.0	290.0 LB
SUB TOTALS		68	375.4	375.4 LB

PLU TOTALS - TOTAL

PAGE 1 PLU NO.

PRODUCT TOTALS
05:49 PM 30 JUNE 95

PLU	UPC CODE	BOX COUNT	TOTAL NET WT	TOTAL PRINTED NET
127	12345	2	60.7	60.7 LB
321	87654	3	48.9	48.9 LB
789	23453	5	100.0	100.0 LB
TOTALS		10	209.6	209.6 LB

PAGE 1 PLU NO.

PRODUCT FILE LISTING
05:49 PM 30 JUNE 95

```
PLU:123          UPC CODE:12345
DESC1 TRAY PACK
DESC2 6 PCS
TARE 10.0
BX CNT/PLT 2
BOX CNT          6
LWR SP 10.0
UPR SP 200.0
FXD WT 0
ADDRESS

PLU:123          UPC CODE:12345
DESC1 TRAY PACK
DESC2 6 PCS
TARE 10.0
BX CNT/PLT 2
BOX CNT          6
LWR SP 10.0
UPR SP 200.0
FXD WT 0
ADDRESS
```

REPORT KEY (CONT.)

FIXED REPORT

```
**********************************************
05:46 PM          30 JUN 95
FIXED FIELD: RICE LAKE WEIGHING SYSTEMS
DATE CODE: 654321
ASSORT INDICATOR: 2
NUMBER SYS CHARS: 54
MANUFACTURER ID: 98765
```

DEFINE PLU KEY

PRINT PLU

```
PLU NO.          123
     UPC CODE: 12345
     BOX CNT   6
     TOTAL NET 175.0
     TOT PTD NET 0
     DESC1 TRAY PACK
     DESC2 6 PCS
     TARE 10.0
     BX CNT/PLT 2
     LWR SP 10.0
     UPR SP 200.0
     FXD WT 0
     ADDRESS

TIME 11:38 AM          01 JUL 93
```

PRINT PLU REPORT

```
PAGE 1     PLU NO.    SUB TOTAL     TIME 11:38 AM     01 JUL 95

PLU NO.          123
     UPC CODE: 12345
     BOX CNT   6
     TOTAL NET 175.0
     TOT PTD NET 0
     DESC1 TRAY PACK
     DESC2 6 PCS
     TARE 10.0
     BX CNT/PLT 2
     LWR SP 10.0
     UPR SP 200.0
     FXD WT 0
     ADDRESS

PLU NO.          321
     UPC CODE: 12345
     BOX CNT   6
     TOTAL NET 175.0
     TOT PTD NET 0
     DESC1 TRAY PACK
     DESC2 6 PCS
     TARE 10.0
     BX CNT/PLT 2
     LWR SP 10.0
     UPR SP 20.0
     FXD WT 0
     ADDRESS

TOTAL NET      207.3
TOTAL PRINTED NET  0
```

TRANSACTION ID KEY

PRINT ID

```
TICKET          11
     PLU 123
     UPC CODE 12345
     ACTUAL NET 50.9
     PRINTED NET 0
     UPC SYM 12345
     TRANS DATE 05:12 PM      30 JUNE 95

TIME 11:45 AM 01 JUL 93
```

PRINT ID REPORT

```
PAGE 1     TICKET      SUB TOTAL     TIME 11:45 AM      01 JUL 95

TICKET          11
     PLU 123
     UPC CODE 12345
     ACTUAL NET 50.9
     PRINTED NET 0
     UPC SYM 12345
     TRANS DATE 05:12 PM      30 JUNE 93

TICKET          29
     PLU 123
     UPC CODE 12345
     ACTUAL NET 50.9
     PRINTED NET 0
     UPC SYM 12345
     TRANS DATE 10:12 PM      01 JUL 93

TICKET          30
     PLU 123
     UPC CODE 12345
     ACTUAL NET 50.9
     PRINTED NET 0
     UPC SYM 12345
     TRANS DATE 11:14 PM      01 JUL 93
```

PRINT PK280SS CFG

PK280SS CONFIGURATION
TIME 05:30 PM 30 JUN 95

PROGRAM ID RP21001
SERIAL PORT 1 BAUD 9600
8 DATA 1 STOP

SERIAL PORT BAUD 9600
8 DATA 1 STOP

SCALE ID IQ+810
SCALE UNITS LB
COUNT BY 0.1

PASSWORD LEVEL 1 = 0
PASSWORD LEVEL 2 = 0

ID 1 NAME: PLU NO.
ENABLE ID (Y/N) 1
TRANS NAME:TICKET
ENABLE ID (Y/N) 1

REMOTE HOST 0
AUTO CHECKWEIGH 1
REAL TXD 0
HEADER 1:
HEADER 2:
HEADER 3:

P1	ROT	FONT	HSIZE	VSIZE	BCHT	ROW	COL	ITEM
	1	4	1	1	0	185	150	52
	1	1	1	1	0	170	100	32
	1	0	1	1	0	200	275	93
	1	2	1	1	0	145	35	53
	1	2	1	1	0	120	35	54
	1	0	1	1	0	111	288	80
	1	0	1	1	0	101	288	33
	1	4	2	1	0	78	20	92
	1	1	1	1	0	88	288	34
	1	1	1	1	0	76	288	35
	1	L	3	1	32	5	35	85
	1	L	3	1	32	5	288	31
P2	ROT	FONT	HSIZE	VSIZE	BCHT	ROW	COL	ITEM
	1	3	1	1	0	200	100	94
	1	3	1	1	0	160	50	96
	1	2	1	1	0	160	175	52
	1	3	1	1	0	113	50	37
	1	2	1	1	0	113	250	81
	1	3	1	1	0	65	50	36
	1	2	1	1	0	65	175	80
	1	2	1	1	0	113	360	34
	1	L	3	1	32	5	35	83
P3	ROT	FONT	HSIZE	VSIZE	BCHT	ROW	COL	ITEM
	1	3	1	1	O	200	100	95

APPENDIX B - CONFIGURE PAGE WORKSHEET

page	rotation	font	hsize	vsize	bcheight	row	column	item

EXTRA CONFIGURE PAGE WORKSHEET

page	rotation	font	hsize	vsize	bcheight	row	column	item

APPENDIX C - FONT AND BAR CODE SELECTIONS

Characters 0-9 select human readable fonts, and characters A-O select bar code fonts. Characters 0-8 select 9 different font sizes of the standard Survivor SST fonts. Character 9 selects the internal CG Triumvirate smooth font and external cartridge fonts. 10 internal smooth font sizes are selected using the bar code height field. The 9 character is also used to select fonts that you can download by putting a different font size number in the bar code height field.

Characters A through O will print bar code fonts with human readable interpretation. Characters AL through OL will print bar code fonts without human readable interpretation. See the following pages for the different choices and descriptions of fonts and bar codes.

The horizontal multiplier, digits 1-9 and A-O, represent multiplication factors of 1-9 and 10-24, respectively.

For human readable fonts, the multiplication factor represents the number of times the dot tables for the font selected are multiplied in the horizontal direction.

For bar codes, characters 1-9 and A-O will give a wide bar width of 0.005" to 0.120" when using a 0.005" dot size on the Survivor SST. The Survivor SST 152 will give a wide bar width of 0.0065" to 0.156". A maximum width of 0.240" can be printed horizontally by selecting a 0.010" dot size or on the Survivor SST 152, a maximum width of 0.312" can be printed horizontally by selecting a 0.010" dot size. A maximum width of 0.360" can be printed vertically by selecting a 0.015" dot size and rotating the bar code to print vertically. See the Wide Bar Width table below.

WIDE BAR WIDTH						
		SURVIVOR SST			SURVIVOR SST 152	
		HORIZONTAL DOT SIZE (in)		**VERTICAL * DOT SIZE (in)**	**HORIZONTAL DOT SIZE (in)**	
		#1	#2	#3	#1	#2
	1	.005	.010	.015	.0065	.0130
H	2	.010	.020	.030	.0130	.0260
O	3	.015	.030	.045	.0195	.0390
R	4	.020	.040	.060	.0260	.0520
I	5	.025	.050	.075	.0325	.0650
Z	6	.030	.060	.090	.0390	.0780
O	7	.035	.070	.105	.0455	.0910
N	8	.040	.080	.120	.0520	.1040
T	9	.045	.090	.135	.0585	.1170
A	A	.050	.100	.150	.0650	.1300
L	B	.055	.110	.165	.0715	.1430
	C	.060	.120	.180	.0780	.1560
M	D	.065	.130	.195	.0845	.1690
U	E	.070	.140	.210	.0910	.1820
L	F	.075	.150	.225	.0975	.1950
T	G	.080	.160	.240	.1040	.2080
I	H	.085	.170	.255	.1105	.2210
P	I	.090	.180	.270	.1170	.2340
L	J	.095	.190	.285	.1235	.2470
I	K	.100	.200	.300	.1300	.2600
E	L	.105	.210	.315	.1365	.2730
R	M	.110	.220	.330	.1430	.2860
	N	.115	.230	.345	.1495	.2990
	O	.120	.240	.360	.1560	.3120

* The bar code must be rotated 90 degrees when using no. 3 vertical dot size.

The vertical multiplier, digits 1-9 and A-O represent multiplication factors of 1-9 and 10-24, respectively.

For human readable fonts, the multiplication factor represents the number of times the dot tables for the font selected are multiplied in the vertical direction.

For bar codes, this character specifies the narrow bar width. Characters 1-9 and A-O will give a narrow bar width of 0.005" to 0.120" when using a 0.005" dot size. Optional Survivor SST 152 will give a narrow bar width of 0.0065" to 0.156" when using a 0.005" dot size. A maximum width of 0.240" can be printed horizontally by selecting a 0.010" dot size. A maximum width of 0.360" can be printed vertically by selecting a 0.015" dot size and rotating the bar code to print vertically. See the Narrow Bar Width table below.

NARROW BAR WIDTH

		SURVIVOR SST			SURVIVOR SST 152
		HORIZONTAL DOT SIZE (in)		**VERTICAL * DOT SIZE (in)**	**HORIZONTAL DOT SIZE (in)**
		#1	#2	#3	#1
	1	.005	.010	.015	.0065
V	2	.010	.020	.030	.0130
E	3	.015	.030	.045	.0195
R	4	.020	.040	.060	.0260
T	5	.025	.050	.075	.0325
I	6	.030	.060	.090	.0390
C	7	.035	.070	.105	.0455
A	8	.040	.080	.120	.0520
L	9	.045	.090	.135	.0585
	A	.050	.100	.150	.0650
M	B	.055	.110	.165	.0715
U	C	.060	.120	.180	.0780
L	D	.065	.130	.195	.0845
T	E	.070	.140	.210	.0910
I	F	.075	.150	.225	.0975
P	G	.080	.160	.240	.1040
L	H	.085	.170	.255	.1105
I	I	.090	.180	.270	.1170
E	J	.095	.190	.285	.1235
R	K	.100	.200	.300	.1300
	L	.105	.210	.315	.1365
	M	.110	.220	.330	.1430
	N	.115	.230	.345	.1495
	O	.120	.240	.360	.1560

* The bar code must be rotated 90 degrees when using no. 3 vertical dot size.

SURVIVOR SST FONTS - HUMAN READABLE

0: Identifies a 96-character upper case and lower case alphanumeric font. Characters are 7 dots high, 5 dots wide, and 1 dot spacing.

1: Identifies a 145-character upper case and lower case alphanumeric font that includes descenders and ascenders. Characters are 9 dots high, 9 dots wide, and 2 dots spacing (International characters are 13 dots high, 7 dots wide, and 2 dots spacing).

2: Identifies a 138-character upper case and lower case alphanumeric font. Characters are 18 dots high, 10 dots wide, and 2 dots spacing.

3: Identifies a 62-character upper case alphanumeric font. Characters are 27 dots high, 14 dots wide, and 2 dots spacing.

4: Identifies a 62-character upper case alphanumeric font. Characters are 36 dots high, 18 dots wide, and 3 dots spacing.

5: Identifies a 62-character upper case alphanumeric font. Characters are 52 dots high, 18 dots wide, and 3 dots spacing.

6: Identifies a 62-character upper case alphanumeric font. Characters are 64 dots high, 32 dots wide, and 4 dots spacing.

7: Identifies a font that prints OCR-A, size I. Characters are 32 dots high, 15 dots wide, and 5 dots spacing.

8: Identifies a font that prints OCR-B, size III. Characters are 28 dots high, 15 dots wide, and 5 dots spacing.

9: Identifies the internal Triumvirate font. Point sizes are selected by number in the bar code height.

A: Identifies the Code 3 of 9 bar code. Code 3 of 9 is an upper case, alphanumeric bar code that is variable in length. The valid ASCII characters for this font are: 32, 36-37, 42-43, 45-47, 48-57, 65-90. Code 3 of 9's normal wide to narrow bar ratio is 3:1.

B: Identifies the UPC-A bar code. Numeric-only bar code with a fixed length of 12 characters. Eleven digits supplied by host or application software, 12th digit checksum supplied by printer. If the 12th digit is sent by the host, the printer will check that character against the calculated checksum and will print the bar code as all zeros if they do not match. Addendum codes for this font are described by fonts M and N. The normal ratios that the printer can print are 1:1, 2:2, 3:3, 4:4, 6:6, and 8:8. These ratios actually specify size of elements since UPC type bar codes are element based and not ratio based. (Maximum 10 bar codes per label.)

Option V: Identifies Random Weight UPC bar code. The seventh digit supplied by the host or application software must be an upper case V followed by 4 digit weight information. Eleven digit checksum is supplied by the printer.

C: Identifies the truncated UPC-E bar code. Numeric-only bar code with a fixed length of 7 characters. Six digits supplied by host or application program, 7th digit checksum supplied by printer. If the 7th digit is sent by the host, the printer will check that character against the calculated checksum and will print the bar code as all zero if they do not match. Addendum codes for this font are described by fonts M and N. The normal ratios that the printer can print are 1:1, 2:2, 3:3, 4:4, 6:6, and 8:8. These ratios actually specify size of elements since UPC type bar codes are element-based and not ratio-based.

D: Identifies the Interleaved 2 of 5 bar code. 2 of 5 is a numeric-only code. The ASCII range for the numeric codes is 48-57. Code 2 of 5's normal wide to narrow bar ratio is 5:2. (Maximum 8 bar codes per label.)

E: Identifies the Code 128 variable length bar code with modulo 103 checksum calculation. Code 128 can encode the entire 128 ASCII character set, including both uppercase and lowercase alpha characters. Code 128 is an element based bar code similar to the UPC fonts. Therefore ratios must be equal to one. The valid ratios are 1:1, 2:2, 3:3, 4:4, 6:6, and 8:8.

The Survivor SST supports Code 128 Code Subset A, B, and C. You can select the printer to start on any code subset and switch to another with the data area (default is subset B).

Code Subset A includes all of the standard upper case alphanumeric keyboard characters plus the control and the special characters. To select Code Subset A, precede the data to be encoded with an ASCII A (DEC 65, HEX 41).

Code Subset B includes all of the standard upper case alphanumeric keyboard characters plus lower case alphabetic and special characters. To select Code Subset B, precede the data to be encoded with an ASCII B (DEC 66, HEX 42). If no start character is sent for the 128 font, Code Subset B will be selected by default.

Code Subset C includes the set of 100 digit pairs from 00 through 99 inclusive, as well as special characters.

Code Subset C is used for double density encoding of numeric data. To select Code Subset C, precede the data to be encoded with an ASCII C (DEC 67, HEX 43). You must not try to encode alpha data if you select Code Subset C.

Special Character Handling

Characters above ASCII value 95 are considered special characters. To access these values, a two character reference table has been built into the Survivor SST Label Printer. The following table describes this reference.

F: Identifies the standard EAN-13 bar code. Numeric-only bar code; fixed in length. Twelve digits supplied by host or application software, 13th digit checksum supplied by printer. If the 13th digit is sent by the host, the printer will check that character against the calculated checksum and will print the bar code as all zero if they do not match. Addendum codes for this font are described by fonts M and N. The normal ratios that the printer can print are 1:1, 2:2, 3:3, 4:4, 6:6, and 8:8. These ratios actually specify size of elements since EAN type bar codes are element based and not ratio based. Maximum 12 bar codes per label.

G: Identifies the truncated EAN-8 bar code. Numeric-only bar code; fixed in length. Seven digits supplied by host or application software, 8th digit supplied by printer. If the 8th digit is sent by the host, the printer will check that character against the calculated checksum and will print the bar code as all zero if they do not match. Addendum codes for this font are described by fonts M and N. The normal ratios that the printer can print are 1:1, 2:2, 3:3, 4:4, 6:6, and 8:8. These ratios actually specify size of elements since EAN type bar codes are element-based and not ratio-based.

H: Identifies the HIBC (modulo 43 checksum) version of the code 3 of 9 bar code. The checksum will be placed at the end of the data string that is received from the host. The host device must supply the leading “+”s to identify the data format type. Code 3 of 9 is an upper case, alphanumeric bar code that is variable in length. The valid ASCII characters for this font are: 32, 36-39, 42-43, 45-47, 48-57, 65-90. Code 3 of 9’s normal wide to narrow bar ratio is 3:1.

I: Identifies the 20-character CODABAR bar code. CODABAR is basically a numeric bar code with some special additional characters. These characters are “0123456789ABCD$+-./:” excluding the “ characters. The length of the code is variable and is normally printed with a 3:1 ratio. CODABAR needs a start and stop character.

J: Identifies a 2 of 5 bar code with modulo 10 checksum calculation. The ASCII range for the numeric codes is 48-57. Code 2 of 5’s normal wide to narrow bar ratio is 5:2. Font D and L also print different forms of the 2 of 5 bar code. Maximum 8 bar codes per label.

K: Identifies the Plessey bar code.

L: Identifies a 2 of 5 bar code with modulo 10 checksum (UPC shipping container symbology) that does the special human readable formatting and adds bearer bars to the top and bottom of bars when encoding 13 digits. The ASCII range for the numeric codes is 48-57. Code 2 of 5’s normal wide to narrow bar ratio of 5:2. Font d and L also print different forms of the 2 of 5 bar code. There must be a maximum of 8 bar codes per label.

M: Identifies the 2 digit addendum code for UPC fonts. It is a numeric-only bar code with a fixed length of 3 characters: two characters supplied by the host or application software, the third digit checksum supplied by printer. If the third digit is sent by the host, the printer will check that character against the calculated checksum and will print the bar code as all zero if they do not match. Addendum codes for this font are described by fonts M and N. The normal ratios that the printer can print are 1:1, 2:2, 3:3, 4:4, 6:6, and 8:8. These ratios actually specify size of elements since UPC type bar codes are element-based and not ratio-based. It must be placed after the UPC/EAN code manually. This code should be placed 9 modulus away from the end of preceding bar codes.

N: Identifies the 5-digit addendum code for UPC fonts. It is a numeric-only bar code with a fixed length of 6 characters: two characters supplied by the host or application software, the sixth digit checksum supplied by printer. If the sixth digit is sent by the host, the printer will check that character against the calculated checksum and will print the bar code as all zero if they do not match. Addendum codes for this font are described by fonts M and N. The normal ratios that the printer can print are 1:1, 2:2, 3:3, 4:4, 6:6, and 8:8. These ratios actually specify size of elements since UPC type bar codes are element-based and not ratio-based. It must be place after the UPC/EAN code manually. This code should be placed 9 modulus away from the end of preceding bar codes.

O: Identifies the Code 93 bar code. Code 93 is an upper and lower case alphanumeric bar code. The normal ratios that the printer can print are 1:1, 2:2, 3:3, 4:4, 6:6, and 8:8. These numbers actually specify size of magnification and are element-based; not ratio-based. The ASCII characters that are permissible for Code 93 are “:,&#0$%*+/ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789abcdefghijklmnopqrstuvwxyz”.

APPENDIX D - SCALE INDICATOR AND PRINTER INTERFACING

The scale indicator is normally connected to the PK280SS's serial port 1 input terminal, and a label printer is normally connected to port 1's output terminal. Serial port 1 can accept and transmit data in either RS-232 or 20 mA Current Loop. A system of removable wiring jumpers is used to switch between the formats (see the wiring chart at right, and the board diagram on the following page). In the normal configuration, communication is bidirectional, but not simultaneous, as a single port is receiving input from one device and sending output to another. The PK280SS supports RS-232 printer handshaking, if necessary, on serial port 1 through terminals #4 and #5. When not using the handshake signal, connect a jumper from RTS to CTS (pin 4 to 5).

Serial port 2 is also available for bidirectional communication, such as interfacing to a scanner for input, and outputting to a second printer, such as a report printer. Serial port 2 does not support RS-232 handshaking. Serial port 2 is normally used if a remote PC is added to the system as a host controller for the PK280SS. A remote PC used as a controller allows uploading and downloading PLU databases if 2-way RS-232 is utilized. In this situation, there would be no report printer.

Serial port 2 can communicate via three modes: RS-232 (2-way), RS-485 (In), or RS-422 (In) . Removable wiring jumpers are used to switch between formats (see wiring chart at right).

PK280SS TERMINAL BOARD WIRING LIST

PIN	SIGNAL	NECESSARY JUMPERS IN	SERIAL PORT
1	CHASSIS GND		
2	RS-232 TXD	W2	1
3	RS-232 RXD	W2	1
4	RS-232 RTS (handshake output to printer)		1
5	RS-232 CTS (handshake input from printer)		1
6	+5V (resistor limited)		1
7	GND		1
8	20mA CL in+	W3	1
9	RS-232 RXD	W1	2
10	RS-232 TXD	W1	2
11	RS485 +	W21	2
12	RS485 -	W21	2
13	GND		2
14			
15	PULSE INPUT		1
16	TTL INPUT		Centronics
17	TTL INPUT		Centronics
18	20mA CL in+	W16	2
19	20mA CL in-	W16	2
20	+5V		
(18)	RS-422 in+	W22	2
21	RS-422 in-	W22	2
22	20mA CL in-	W3	1
23	+5R		2
24	20mA CL out	W3	1
25	TTL RTS		1

The PK280SS also has an optional parallel Centronics port that is available for use with the Box Label Program. Alternately, this port can be used for connecting up to 2 TTL inputs and up to 8 TTL outputs. Contact your distributor for information about using this port.

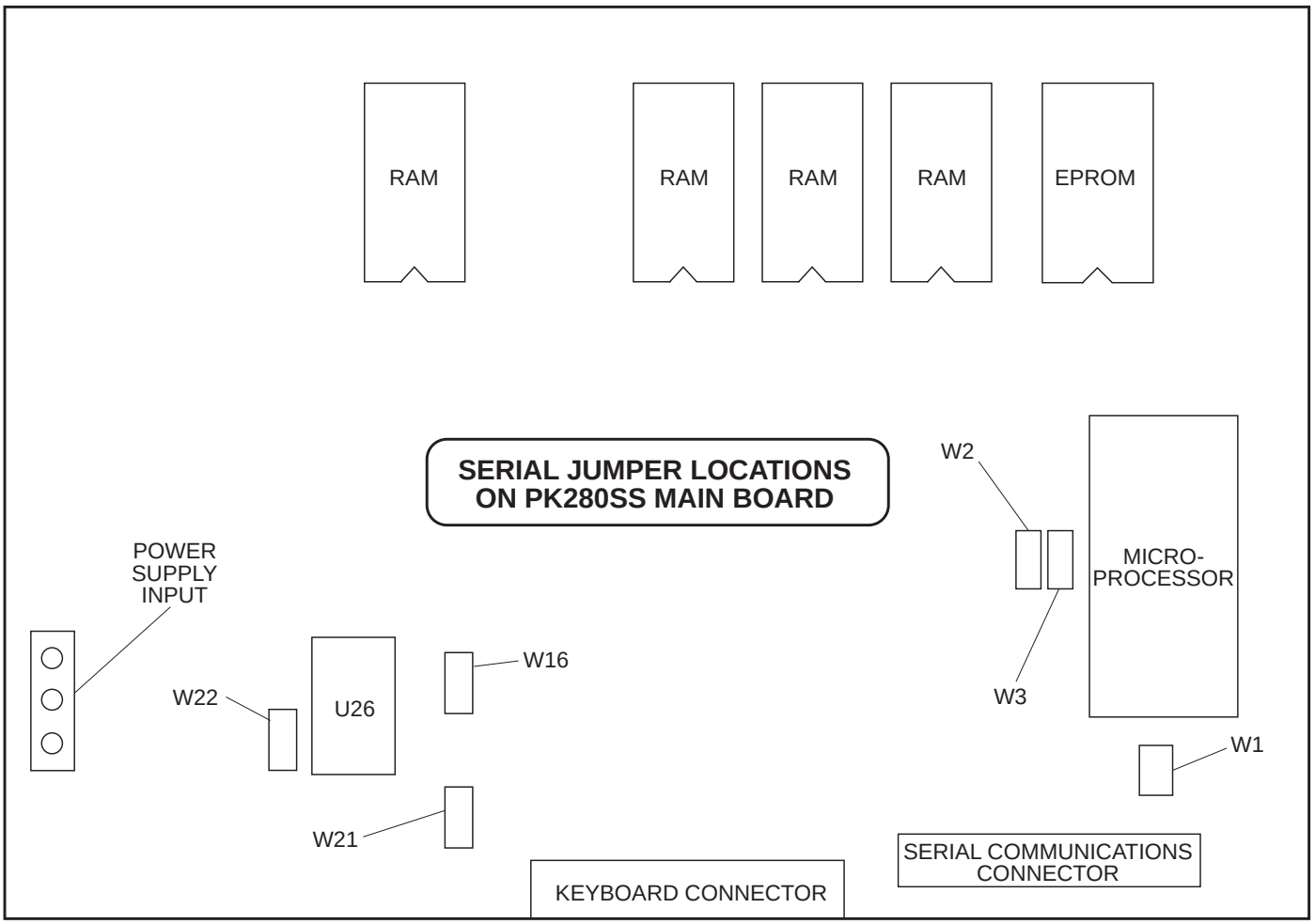
EXAMPLE

Serial Port 1 Connections:

Dual 1-way RS-232	**Indicator**	→	**PK280SS**	→	**Label Printer**
(Insert Jumper W2)	TXD		RXD pin 3		
			TXD pin 2		RXD
			CTS pin 5		BUSY SIGNAL
	GND		GND pin 7		GND

Serial Port 2 Connections:

Single 2-way RS-232	**Host PC**	÷	**PK280SS**
(Insert Jumper W1)	TXD		RXD pin 9
	RXD		TXD pin 10
	GND		GND pin 13



IQplus Indicators, PK280SS, and Survivor SST Printer Connections:

The PK280SS serial connector is located on the keyboard base plate. Pinouts to the connector for interfacing the indicator and printers are shown at right.