SAM4s ER-900 Series Electronic Cash Register

Operator's and Programming Manual

ER-945/920 Shown Above with Optional Card Reader

CRS, Inc.
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Revision 2.0 - April 1, 2005

WARNING - U.S.

THIS EQUIPMENT GENERATES, USES AND CAN RADIATE RADIO FREQUENCY ENERGY, AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTIONS MANUAL, MAY CAUSE INTERFERENCE TO RADIO COMMUNICATIONS. IT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A COMPUTING DEVICE PURSUANT TO SUBPART J OF PART 15 OF FCC RULES WHICH ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST SUCH INTERFERENCE WHEN OPERATED IN A COMMERCIAL ENVIRONMENT. OPERATIONS OF THE EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE INTERFERENCE IN WHICH CASE THE USER, AT HIS OWN EXPENSE, WILL BE REQUIRED TO TAKE WHATEVER MEASURES MAY BE REQUIRED TO CORRECT THE INTERFERENCE.

NOTICE - CANADA

THIS APPARATUS COMPLIES WITH THE CLASS “A” LIMITS FOR RADIO INTERFERENCE AS SPECIFIED IN THE CANADIAN DEPARTMENT OF COMMUNICATIONS RADIO INTERFERENCE REGULATIONS.

CET APPAREIL EST CONFORME AUX NORMES CLASS “A” D’INTERFERENCE RADIO TEL QUE SPECIFIER PAR MINISTRE CANADIEN DES COMMUNICATIONS DANS LES REGLEMENTS D’INTERFERENCE RADIO.

ATTENTION

The product that you have purchased may contain a battery that may be recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of the battery into the municipal waste system.

Check with your local solid waste officials for details concerning recycling options or proper disposal.

Precaution Statements

Follow these safety, servicing and ESD precautions to prevent damage and to protect against potential hazards such as electrical shock.

1-1 Safety Precautions

1. Be sure that all built-in protective devices are replaced. Restore any missing protective shields.
2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including nonmetallic control knobs and compartment covers.
3. Make sure there are no cabinet openings through which people - particularly children - might insert fingers and contact dangerous voltages. Such openings include excessively wide cabinet ventilation slots and improperly fitted covers and drawers.
4. Design Alteration Warning:
   Never alter or add to the mechanical or electrical design of the SECR. Unauthorized alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.
5. Components, parts and wiring that appear to have overheated or that are otherwise damaged should be replaced with parts that meet the original specifications. Always determine the cause of damage or over- heating, and correct any potential hazards.
6. Observe the original lead dress, especially near the following areas: sharp edges, and especially the AC and high voltage supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.
7. Product Safety Notice:
   Some electrical and mechanical parts have special safety-related characteristics that might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original - even if the replacement is rated for higher voltage, wattage, etc. Components that are critical for safety are indicated in the circuit diagram by shading, (▭) or (▭). Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications. A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer.

Dispose used batteries according to the manufacturer's instructions.

ATTENTION

ll y a danger d'explosion s'il y a remplacement incorrect de la batterie.

Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur.

Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

1-2 Servicing Precautions

WARNING: First read the-Safety Precautions-section of this manual. If some unforeseen circumstance creates a conflict between the servicing and safety precautions, always follow the safety precautions.

WARNING: An electrolytic capacitor installed with the wrong polarity might explode.

1. Servicing precautions are printed on the cabinet. Follow them.
2. Always unplug the units AC power cord from the AC power source before attempting to: (a) Remove or reinstall any component or assembly (b) Disconnect an electrical plug or connector

   (c) Connect a test component in parallel with an electrolytic capacitor
3. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
4. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the portion around the serviced part has not been damaged.
5. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels and input terminals).
6. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500V) to the blades of AC plug.

   The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megaohm.
7. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.
8. Always connect an instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3 Precautions for Electrostatically Sensitive Devices (ESDs)

1. Some semiconductor (solid state) devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.
2. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. (Be sure to remove it prior to applying power - this is an electric shock precaution.)
3. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of electrostatic charge.
4. Do not use Freon-propelled chemicals. These can generate electrical charges that damage ESDs.
5. Use only a grounded-tip soldering iron when soldering or unsoldering ESDs.
6. Use only an anti-static solder removal device. Many solder removal devices are not rated as anti-static; these can accumulate sufficient electrical charge to damage ESDs.
7. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
8. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
9. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an ESD.

Contents

Introduction

About the ER-900 Series

The ER-900 Series is offered in Raised Keyboard or Flat Keyboard configurations. Flat keyboard models work well for restaurants, food service shops, or convenience stores and Raised Keyboard models for retail shops.

This manual includes instructions for all models. The keyboard and printer configuration define the model. All other features are the same, unless otherwise noted.

SAM4s ER-920

- Flat 150-position Keyboard
- Receipt Printer.

SAM4s ER-940

- Flat 150-position Keyboard
- Receipt and Journal Printers.

SAM4s ER-925

- 63-position Raised-key Keyboard
- Receipt Printer.

SAM4s ER-945

- 63-position Raised-key Keyboard
- Receipt and Journal Printers.

SAM4s ER-915

- 49-position Raised-key Keyboard
- Receipt and Journal Printers.

Using This Manual

This manual provides you with a means to use your SAM4s cash register to its fullest potential. It is divided into six sections:

- **"Getting Started"** on page 21, provides quick start steps to help you get up and running for basic applications.
- **"Operations"** on page 39, guides you through the basic operation sequences.
- **"Management Functions"** on page 89, explains manager controlled functions, along with reports and balancing information.
- **"S-Mode Programming"** on page 95 provides instructions for secure programming – usually done by the installing dealer prior to installation.
- **"P-Mode Programming"** on page 117 provides complete programming instructions, including PLU, function key programs, and system options. This section is recommended for use by storeowners and managers. Call your SAM4s dealer if you find you need programming assistance.
- **"Sample Reports"** on page 207 provides a sample of each register report.

The SAM4s ER-900 allows many different user applications, this manual was written with this in mind. Although we have tried to touch on all available options, your specific application may differ.

If you have questions concerning the configuration of your ER-900, contact your authorized SAM4s dealer.

Using Flowcharts

Flowcharts are used to supplement step-by-step instructions throughout this manual. For example, the following flowchart describes how to register $1.00 into the PLU1 key:

This flowchart means:

- Press numeric key 1.
- Press numeric key 0.
- Press numeric key 0.
- Press PLU #1.

Follow the flowchart from left to right, pressing the keys in the order they are shown. Numeric keypad entries are shown as square keys. PLU and function keys are shown as rectangular keys.

Basic Features and Functions

SAM4s ER-900 series electronic cash registers are designed to fit into many different retail and restaurant environments. Standard features include:

- Easy drop-and-print paper loading.
- Cash drawer with 5-bill and 5-coin compartments and media storage.
- A two-line 16-character backlit LCD display and a 9-character rotating rear display.
- 7-position control lock.
- 24-hour real-time clock with automatic day and date change.
- Four tax rates with value added tax (VAT) capability. Each tax rate is programmable for tax table look-ups and/or straight percentage tax programming. Tax rate 4 may be programmed to accommodate Canadian goods and services tax (GST).
- Memory allocation system supports the following system features. (Note: maximums are theoretical and may be available when other memory options are minimized. The ER-900 now provides 16mb memory, early versions provided 4mb.)
    - Over 20,000 PLUs (requires 16mb) that can be accessed directly through individual keyboard PLU keys or indirectly through the PLU look-up key.
    - Operation for up to 99 clerks or cashiers with separate report totals.
    - Up to a maximum of 99 group totals are available to accumulate totals of individual PLUs that are assigned to each group. Each PLU can be assigned to up to three different groups.
    - Hard or soft check tracking for up to 200 guest checks, with soft checks containing up to 100 lines of items.
    - 20, up to a maximum of 100 Mix and Match PLU discount tables.
    - Up to 5 PLU modifier keys (i.e. small, medium, and large).
- A programmable keyboard allowing customized placement of functions, as they are needed. (See "Function Key Descriptions" on page 39 for a list of available functions).
- Function keys for posting charges and payments to accounts or guest checks. You can choose manual previous balance posting or automatic balance tracking.
- Food stamp sorting and tendering for stores that accept food stamp payments.
- Check, Cash, and up to eight Charge keys.
- Management X and Z reports.
- Two standard RS-232C (DB9) communication ports for connection to optional POS peripherals. Two additional RS232C ports (RJ-45) are optional.

  The ER-900 series can connect to a scale, kitchen printer, remote printer, scanner, coin dispenser, pole display, liquor interface, video surveillance system, modem, Datatran integrated payment appliance, or a PC for polling and/or programming.

Display

The ER-900 comes with a two-line 16-character backlit LCD display.

As items are registers, the item description will display on the first line; price and quantity information will display on the second line. Additional information and error messages will display as appropriate and may be accompanied by an error tone.

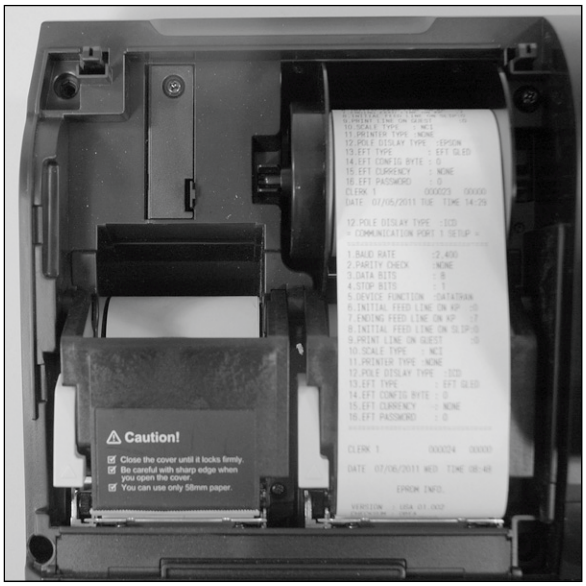
Messages and Error Conditions

SEQUENCE ERROR	PLU NO DATA ERR
CLERK ERROR	AMOUNT CNT ERR
LANTRAN ERR	COMM ERROR
TIME ERROR	OVER LIMIT ERR
INACTIVE ERROR	X MODE ONLY
NON ADD ERROR	ADD CHECK ERR
CONDIMENT ERROR	REQ. EATIN FUNC
STOCK ERROR	DRAWER ERROR
REQ. GUEST #	SCALE ERROR
CLERK NO MATCH	COMPULSORY TARE
REQ. DECLARATION	OFF LINE ERROR
REQ. ENDORSEMENT	CONSOL OVER
REQ. SUBTOTAL	PROMO ERROR
CHECK OPEN ERR	REQ. PASSWORD
NO VOID PLU	REQ. PORT SETUP
REQ PRESET VALUE	REQ. OPEN VALUE
REQ. AMOUNT	REQ. PAYMENT
INVALID FUNC.	REQ. TABLE #
REQ. PBAL	REQ. CHECK #
ONLY ONE TABLE	REQ. VALID
RECPT PAPER END	RECPT NEAR END
COVER OPEN ERR	CUTTER JAM ERR
J PAPER END	J NEAR END
POWER FAIL ERR	CHARGE POST ERR

Printer/Printers

ER-920 & ER-925 Models feature a single receipt printer.

ER-915, ER-940 & ER-945 Models feature separate receipt and journal printers.



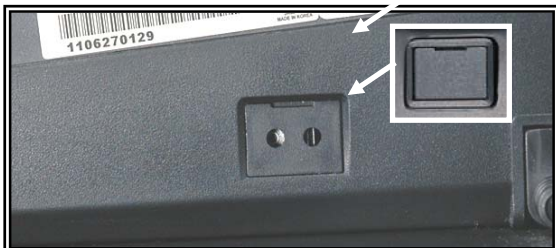
Printer Specifications

Paper:	2 ¼” (58mm) Thermal Paper
Paper Loading:	Drop-in Loading
Print Speed:	22 Lines per second

Power Switch

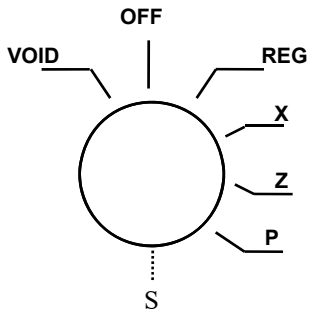
To prevent tampering or interference with the power switch, a protective cover is installed. Use a pointed device such as a pen to activate the switch when the cover is installed, or simply pop off the cover to access the switch normally. For maximum protection, you can install the solid cover provided in the accessory package.

Power Switch Cover Options:
- Use pointed object to toggle on/off
- Pop-out to remove
- Insert shows optional full switch



Control Lock

The control lock has 7 positions, accessed with 5 keys. Each ECR is shipped with two full sets of keys.



VOID	Use to void (correct) items outside of a sale.
OFF	The register is inoperable.
REG	Use for normal registrations.
X	Use to read register reports.
Z	Use to read register reports and reset totals to zero.
P	Use to program the register.
S	The **S** position *(service mode)* is a hidden position reserved for dealer access.

Before performing any operations in Register Mode, a clerk must be signed on. See "Direct Sign-On" or "Coded Sign-On" on page 44 for a description of clerk operations.

Control Keys

The ER-900 includes two sets of keys that may be used to access the following control lock positions.

Key	Positions Accessible
REG	OFF, REG
VD	VOID, OFF, REG, X
Z	VOID, OFF, REG, X, Z
P	VOID, OFF, REG, X, Z, P
C	ALL POSITIONS

Note: Keys may be removed from the control lock in the OFF or REG positions.

Keyboards

ER-920/ER-940 Flat Keyboard Versions

The ER-920/ER-940 keyboards include 150 key positions with the default legends and key assignments as shown below. The keyboard legend sheet can be replaced by lifting the protective rubber cover.

Shaded key locations are fixed and cannot be changed with the exemption of the Journal Feed key which can be reprogrammed on the ER-920.

1	11	21	31	41	51	61	71	81	91	FEED	JOURNAL FEED	ERROR CORR	VOID	CLERK
2	12	22	32	42	52	62	72	82	92	%1	RA	PO	#/NS	RETURN
3	13	23	33	43	53	63	73	83	93	%2	TAKE OUT	EAT IN	DRIVE THRU	CANCEL
4	14	24	34	44	54	64	74	84	94	%3	CHECK #	SERVICE	TABLE #	PRINT CHECK
5	15	25	35	45	55	65	75	85	95	%4	ADD CHECK	TAX 1	CONV 1	CHARGE 3
6	16	26	36	46	56	66	76	86	96	MACRO 1	CLEAR	PLU	X/TIME	CHARGE 2
7	17	27	37	47	57	67	77	87	97	MACRO 2	7	8	9	CHARGE 1
8	18	28	38	48	58	68	78	88	98	MACRO 3	4	5	6	CHECK
9	19	29	39	49	59	69	79	89	99	MACRO 4	1	2	3	SUBTL
10	20	30	40	50	60	70	80	90	100	MACRO 5	0	00	.	CASH

ER-925/ER-945 Raised Keyboard Versions

The ER-925/ER-945 keyboards include keyboard PLU locations and functions with the default legends and key assignments as shown below. The keyboard can be expanded to 63 PLU key locations.

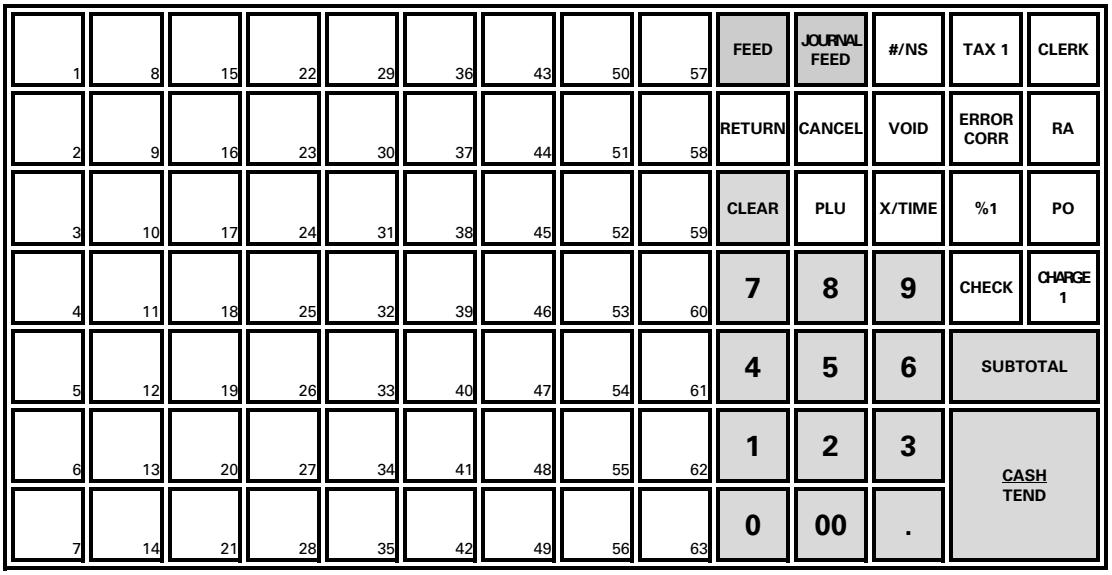
Shaded key locations are fixed and cannot be changed with the exemption of the Journal Feed key which can be reprogrammed on the ER-925.

1	8	15	FEED	JOURNAL FEED	#/NS	TAX 1	CLERK							
2	9	16	RETURN	CANCEL	VOID	ERROR CORR	RA							
3	10	17	CLEAR	PLU	X/TIME	%1	PO							
4	11	18	7	8	9	CHECK	CHARGE 1							
5	12	19	4	5	6	SUBTOTAL								
6	13	20	1	2	3	CASH TEND								
7	14	21	0	00	.									

ER-925/ER-945 Raised Keyboard Version-Expanded

Your authorized dealer can expand the keyboard to 63 PLU key locations as shown below.

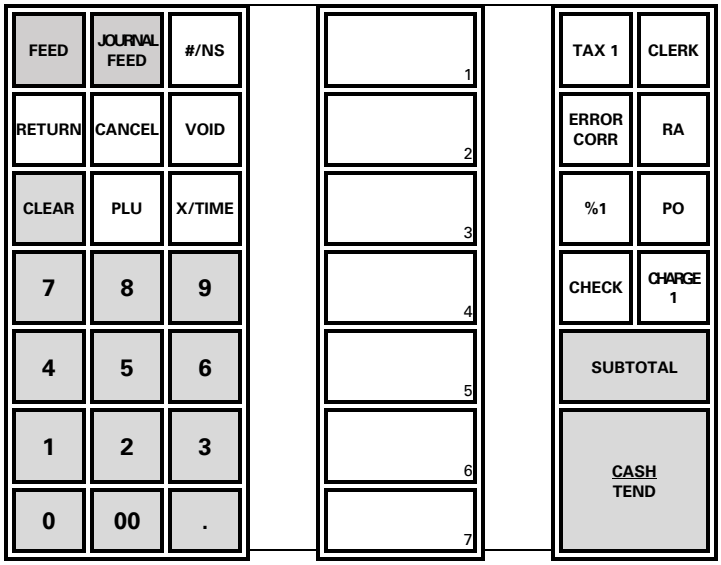
Shaded key locations are fixed and cannot be changed with the exemption of the Journal Feed key which can be reprogrammed on the ER-925.



ER-915 Raised Keyboard Versions

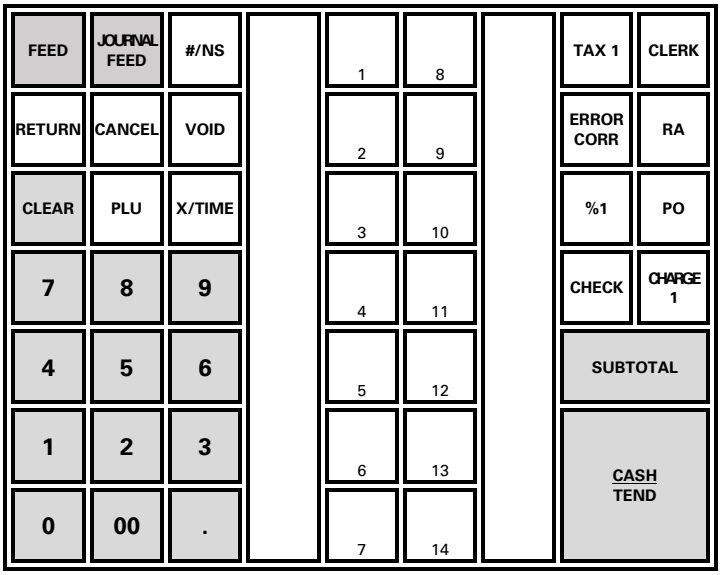
The ER-915 default keyboard includes keyboard PLU locations and functions with the default legends and key assignments as shown below. The default 7 PLU keyboard can be expanded to 14 PLU key locations.

Shaded key locations are fixed and cannot be changed.



ER-915 Raised Keyboard Version-Expanded

Your authorized dealer can expand the keyboard to 14 PLU key locations as shown below. Shaded key locations are fixed and cannot be changed.



Initial Clear

CAUTION: Do not share this information with unauthorized users. Distribute the PGM Mode key only to those you may want to perform this function.

The initial clear function allows you to exit any register activity and return to a beginning or cleared state. Any transaction that is in progress will be exited and totals for that transaction will not be updated.

Here are some reasons you may want to perform an initial clear:

- The register is in an unknown state, and you wish to exit the current program or transaction without following normal procedures.
- You have performed a function that includes a compulsory activity and you wish to bypass the compulsion.
- An initial clear may be necessary as part of servicing or troubleshooting.

Perform this procedure only as necessary. Contact your SAM4s dealer first if you have questions about operating or programming your SAM4s ER-900.

Initial Clear Procedure:

1. Turn the power switch located on the right side of the register to the OFF position.
2. Turn the control lock to the PGM position.
3. For All Models (ER-915, ER-920/ER-940, ER-925/ER-945):
   Press and hold the key position where the SUBTL key is located on the default keyboard layout.
4. While continuing to hold the appropriate key, turn the power switch to the ON position.
5. The message "INITIAL CLEAR OK!" prints when the initial clear is complete.

Getting Started

Quick Start Steps

Using Quick Start Instructions provided here you can configure your register for use in your retail store. Basic setup instructions include: programming prices, descriptors, and loading a tax percentage. Your ER-900 series ECR is now fully functional for many basic-use applications.

Detailed programming steps are found in the full Program section of this manual. A qualified dealer will survey your needs and deliver a more sophisticated program. Complex taxes can be programmed, security options set as needed. Coupons, receipt messages/logos and other commonly used features can be deployed. Dealers will normally charge a program/installation fee for this service.

Steps in this chapter:

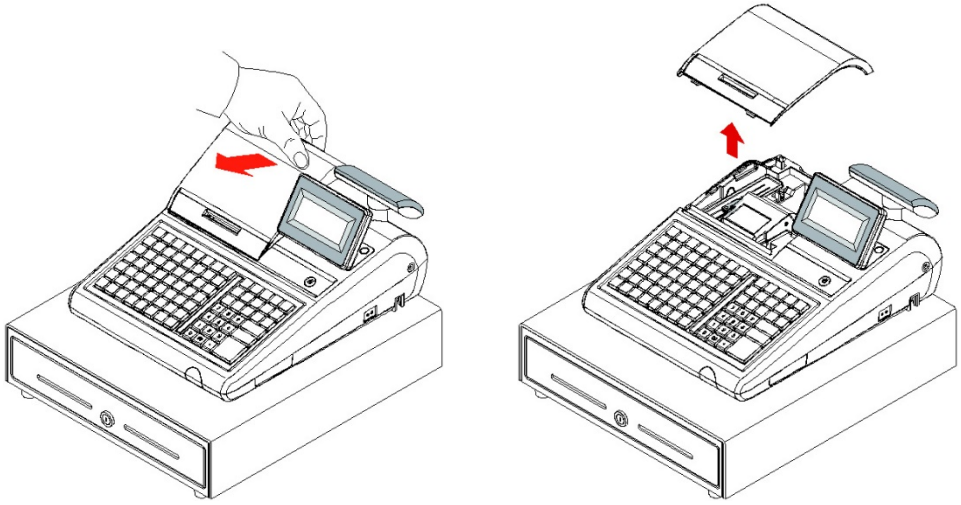
- Unpacking
- Installing the Paper
- Clearing All Memory
- Setting a Straight Percentage Tax for Tax Rate 1
- Programming Tax Status for Keyboard PLUs
- Programming a Descriptor for Keyboard PLUs

Unpacking

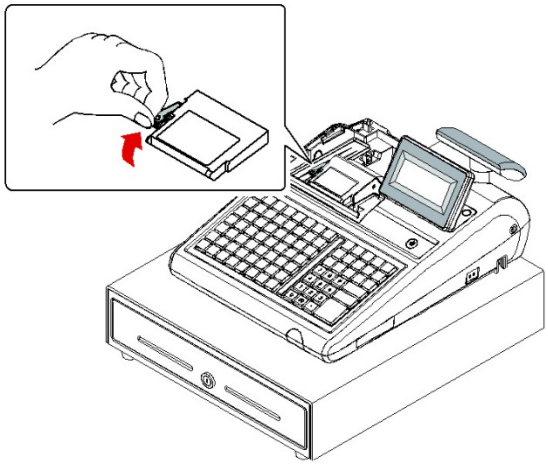
1. Unpack and unwrap the cash register.
2. Locate in the packing the following items:
   - 1 roll of paper
   - 1 rewind spindle (ER-940/ER-945/ER-915 only)
   - Two sets of control keys
3. Remove the cardboard protectors from the cash drawer.
4. Plug the register into a grounded outlet (three-prong), turn the power switch on, insert a control key and turn the key to the REG control lock position.

Installing the Paper

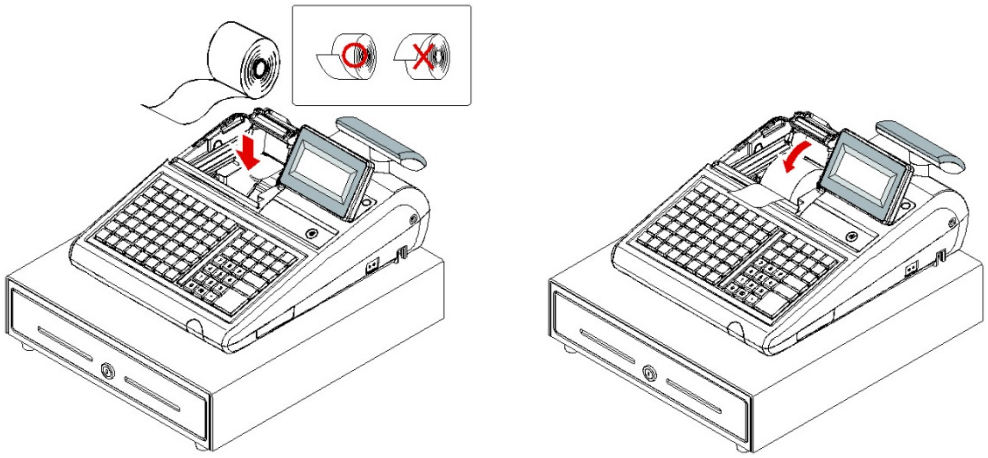
1. Remove the printer cover.



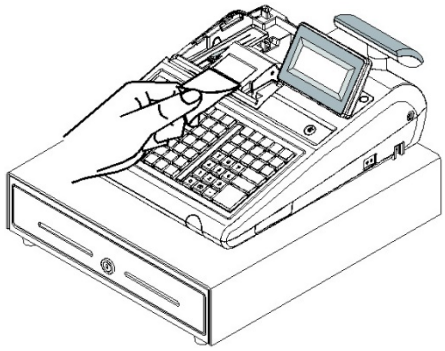
2. Push the blue cap lever and then lift up to open the paper cover.



3. Ensure that the paper is being fed from the bottom of the roll and then close the paper cover slowly until it locks firmly.



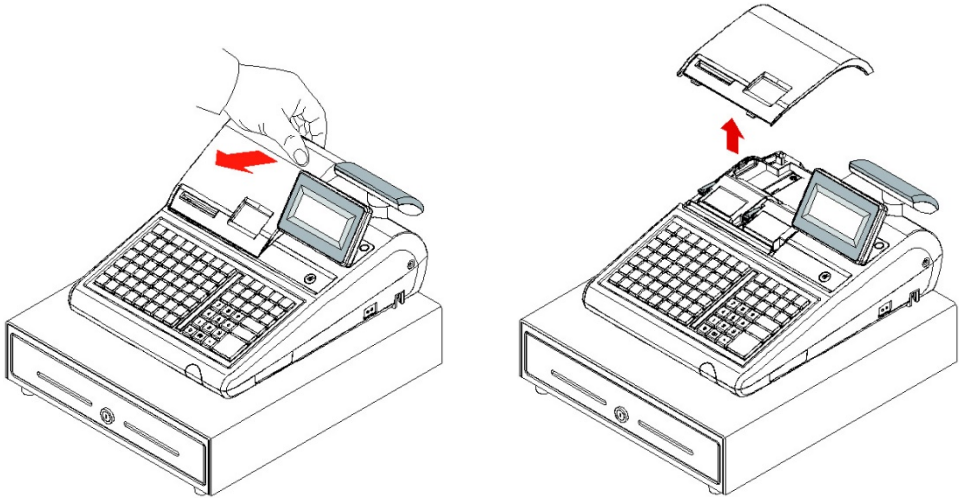
4. Pass the leading edge of the paper through the tear-bar slot. Tear off the excess paper. Replace the printer cover.



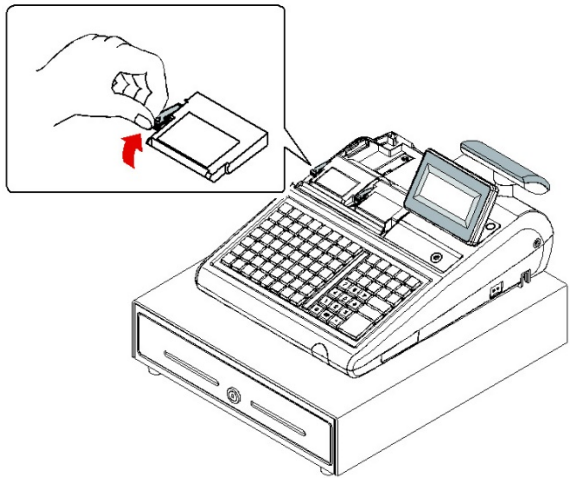
Models with Two Printer Stations

The ER-940, ER-945 and ER-915 models are equipped with separate printers for receipt and journal. Paper loading for these models is shown below:

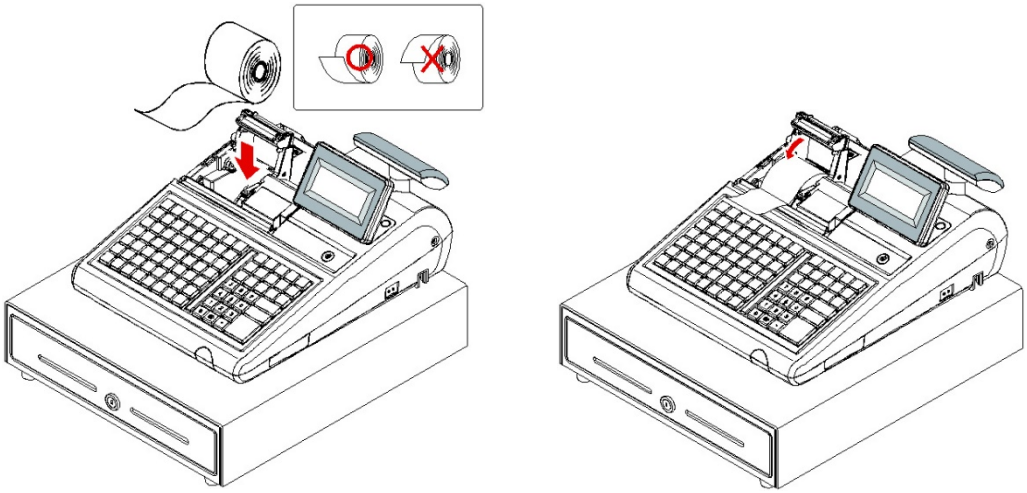
1. Remove the printer cover.



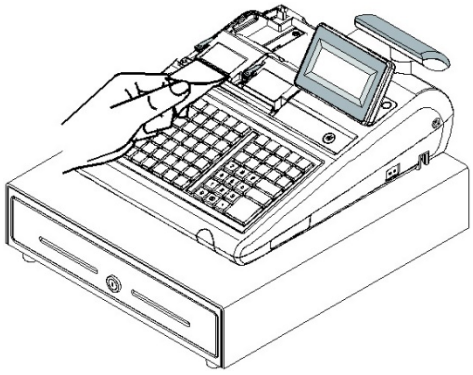
2. Push the blue cap lever and then lift up to open the paper cover.



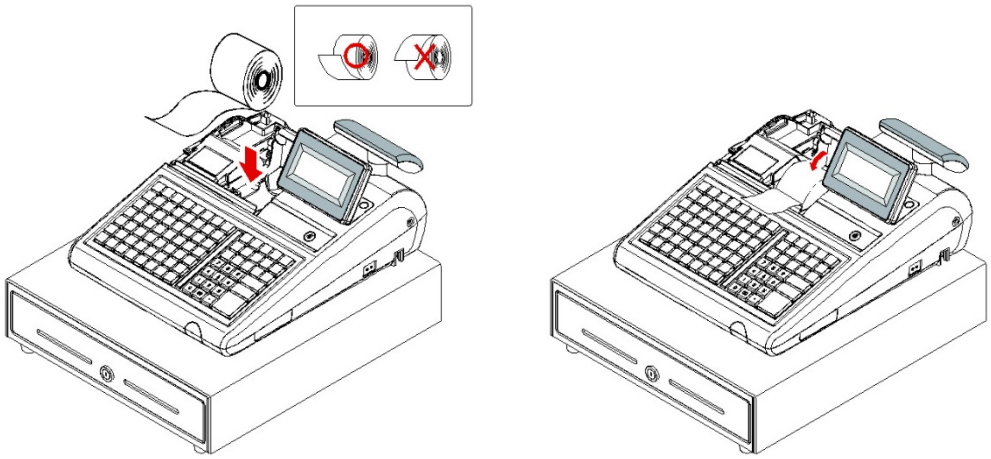
3. Ensure that the paper is being fed from the bottom of the roll and then close the paper cover slowly until it locks firmly.



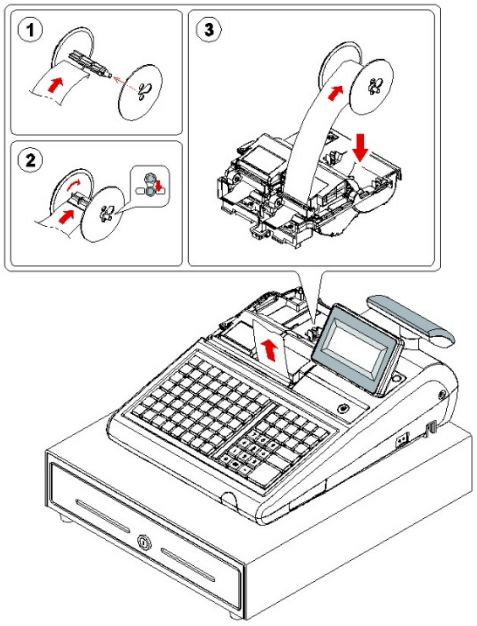
4. Pass the leading edge of the paper through the tear-bar slot. Tear off the excess paper.



5. Push the blue cap lever and then lift up to open the journal paper cover.
6. Ensure that the paper is being fed from the bottom of the roll and then close the paper cover slowly until it locks firmly.



7. If you wish to use the printer to print a sales journal, insert the paper into the paper take-up spool. Wind the paper two or three turns around the spool shaft and install the spool in the mount and insure that the paper is being fed from the bottom of the roll.



Clearing Memory

Before you use your ER-900 for the first time, you must perform a memory all clear to ensure that all totals and counters are cleared and that the default program is installed.

CAUTION: The procedures described in this area are security sensitive. Clearing the ER-900 memory after the register is put into service will erase all programming as well as totals and counters. Do not share this information with unauthorized users and distribute the special SERVICE-Mode key only to those you may want to perform these functions.

PRINTER SELECTION PROCEDURE NOTE: During the Memory All Clear sequence you will be asked to indicate the printer configuration of the model you are using, i.e. Single Station printer or 2-Station printer.

Printer selection can also be done as a separate procedure: Power up in S-Mode while holding the 00 key. This procedure will not clear all memory but will reset the keyboard to its default key assignments.

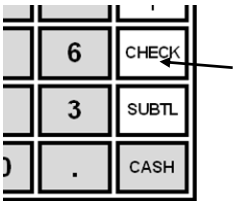
AUTO CUTTER SELECTION: After the station printer selection, you will be prompted for 'Auto Cut ?' There is no Auto-Cutter installed on terminals, select CLEAR for no cutter.

NOTE: Firmware versions v01.085 and later have EMV Integrated Payment capability. With these versions, an SD card is required for EMV, if not using integrated payment with EMV, press Clear to Bypass the error message**.**

ER-920/ER-940 Memory All Clear

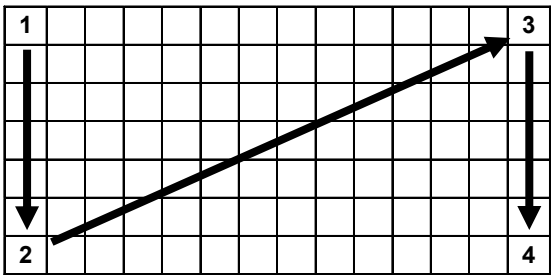
Be sure to insert an SD card prior to performing this procedure if you are using integrated payment with EMV.

1. Turn the power switch located on the right side of the register to the **OFF** position.
2. Turn the control lock to the **S** position.
3. Press and hold the key position where the **CHECK** key is located on the default keyboard layout:



ER-920 and ER-940
Press and hold the **CHECK** key position during power-up in **S** mode.

4. Continue to hold the **CHECK** key while turning the power switch to the **ON** position. The message “RAM ALL CLEAR" displays.
5. Press the **Upper Left** key (PLU1) of the keyboard, then the **Lower Left** key (PLU7), then the **Upper Right** key (CLERK), and finally press the **Lower Right** key (CASH).



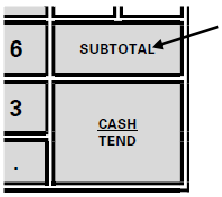
ER-920
ER-940

6. After a short delay, the memory is cleared. The message “ERROR SD CARD REQUIRED” will display if there is no SD card in the SD port. An SD card is required for EMV integrated payment operations; insert an SD card in the SD port. If you are not using EMV integrated payment, you can press CLEAR to continue the clearing memory.
7. The message: "Please Wait…" will display; Memory is cleared, the default program is installed, and the RAM CLEAR receipt is printed. The display now reads: “PRINTER 2STATION; Y=CASH N=CLEAR”.
8. If you have an ER-920 (one printer station), press **CLEAR**.
9. If you have an ER-940 (two printer stations), press **CASH**.
10. The display now reads: “AUTO CUT ?; Y=CASH N=CLEAR”. Press **CLEAR**.
11. The display now reads: “SERVICE MODE; CLOSED”. The RAM Clear procedure is complete.

ER-925/ER-945 Memory All Clear

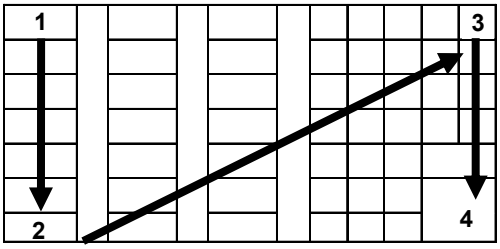
Be sure to insert an SD card prior to performing this procedure if you are using integrated payment with EMV.

1. Turn the power switch located on the right side of the register to the **OFF** position.
2. Turn the control lock to the **S** position.
3. Press and hold the key position where the **SUBTOTAL** key is located on the default keyboard layout:

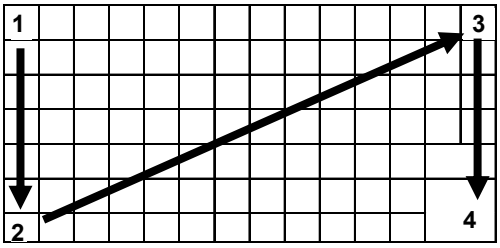


ER-925 and ER-945
Press and hold the **SUBTOTAL** key position during power-up in **S** mode.

4. Continue to hold the SUBTOTAL key while turning the power switch to the **ON** position. The message “RAM ALL CLEAR" displays.
5. Press the **Upper Left** key (PLU1) of the keyboard, then the **Lower Left** key (PLU7), then the **Upper Right** key (CLERK), and finally press the **Lower Right** key (CASH).



ER-925/ER-945
Default Configuration
(21 PLU Keys)



ER-925/ER-945
Expanded
(63 PLU keys)

Note: In the default configuration, there are 21 double-width PLU keys. Under each key, the left-most key is inactive and the right-most key is active. The four-key sequence shown with the default configuration will set the keyboard in the default 21-PLU key configuration.

When the keyboard is expanded, the four-key sequence shown will set the keyboard in the expanded configuration. If you wish to build a custom configuration, you will want to perform a memory clear for the expanded configuration, and then assign each key position individually.

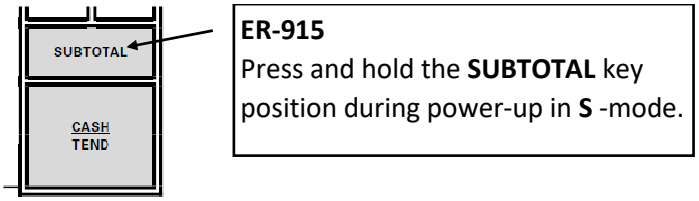
---

6. After a short delay, the printer will display the message: "Please Wait…". Memory is cleared, the default program is installed and the RAM CLEAR receipt is printed. The display now reads: “PRINTER 2STATION; Y=CASH N=CLEAR”.
    - If you have an ER-925 (one printer station), press **CLEAR**.
    - If you have an ER-945 (two printer stations), press **CASH**.
7. The display now reads: “AUTO CUT ?; Y=CASH N=CLEAR”. Press **CLEAR**.
8. When complete, the display reads: “SERVICE MODE; CLOSED”.

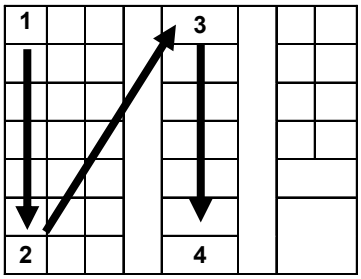
ER-915 Memory All Clear

Be sure to insert an SD card prior to performing this procedure if you are using integrated payment with EMV.

1. Turn the power switch located on the right side of the register to the **OFF** position.
2. Turn the control lock to the **S** position.
3. Press and hold the key position where the **SUBTOTAL** key is located on the default keyboard layout:



4. Continue to hold the SUBTOTAL key while turning the power switch to the **ON** position. The message “RAM ALL CLEAR" displays.



ER-915

5. Press the **Upper Left** key (FEED) on the keyboard, then the **Lower Left** key (ZERO), then the **Upper Right** key (PLU1), and finally press the **Lower Right** key (PLU7).
6. After a short delay, the printer will display the message: "Please Wait…". Memory is cleared, the default program is installed and the RAM CLEAR receipt is printed. The display now reads: “PRINTER 2STATION; Y=CASH N=CLEAR”. Press **CASH**.
7. The display now reads: “AUTO CUT ?; Y=CASH N=CLEAR”. Press **CLEAR**.
8. The display now reads: “SERVICE MODE; CLOSED”. The RAM Clear procedure is complete.

RAM Clear Receipt Example

```
DATE  02/01/2018 THU  TIME 08:37

==============================
      RAM ALL CLEAR OK !
==============================
RAM  (16M)  OK

          EPROM INFO.

VERSION  : USA 01.095
CHECKSUM : 31C5
BOOT/APP : 17EF/1906
PLUs USED: 300/2000
EFT Ver. : DITRAN 01.000
           MAY  26  2017


CLERK 00          000001   00000
```

(Note: EFT Version # prints at version 1.019 or later)

Keyboard Expansion

The keyboards on the Raised key terminals can be expanded from their default configuration.

Er-925/945 Keyboard Configuration Program

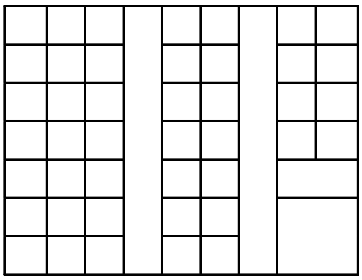
For the ER-925/ER-945 registers, the keyboard is expanded during the Ram Clear operation. Refer to the "Clearing Memory" for the "ER-925/ER-945 Memory All Clear" for details.

Er-915 Keyboard Configuration Program

For the ER-915 registers, the keyboard can be configured for 7 NLU's keys for PLU's (default) or with 14 NLU keys for PLU's. This procedure is performed from the S-Mode.

14 NLU Option Keyboard Setup

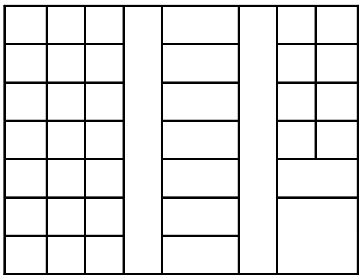
1. Turn the key lock to the **S** position.
2. Enter **4 0 0**, press **SBTL**.
3. Press **1** (Optional KBD - 14 Single PLU's).
4. Press **CASH**.



ER-915
14 Single NLU/PLU
Configuration

7 NLU Keyboard Setup

1. Turn the key lock to the **S** position.
2. Enter **4 0 0**, press **SBTL**.
3. Press **0** (Default KBD - 7 Double wide PLU's).
4. Press **CASH**.



ER-915
7 Double Wide
NLU/PLU Configuration

Straight Percentage Tax Rate Programming

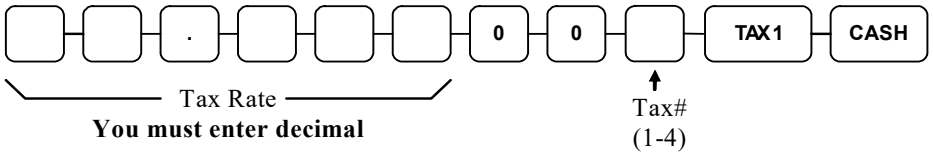
When tax requirements may be met using a straight percentage rate, use the following method to program a tax as a straight percentage.

Important Note: Tax program procedures were updated at software version 1.019. At this version it is no longer necessary to have multiple tax shift keys on the keyboard when multiple taxes are used: all tax programming is done utilizing the TAX 1 key. Please use the appropriate instructions for the version you are programming.

Programming Straight Percentage Tax Rates and Status (v1.019 or later)

1. Turn the control lock to the **PGM** position.
2. If the tax is a percentage rate, **enter the tax rate with a decimal** (0.000-99.999). It is not necessary to enter preceding zeros, but you must enter the decimal. For example, for 6%, enter 06.000 or 6.000.
3. Enter **00**. (Entries here set tax options for value added tax and or Canadian GST. See "Straight Percentage Tax Programming" on page 119 for details.
4. Enter the number **(1-4)** of the tax you are programming.
5. Press the **TAX 1** key.
6. Press the **CASH** key to end programming.

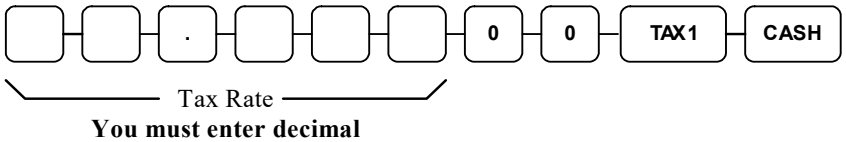
Tax Rate Programming Flowchart



Programming Straight Percentage Tax Rates and Status (Up to v1.017)

1. Turn the control lock to the **PGM** position.
2. If the tax is a percentage rate, enter the tax rate with a decimal. (0.000-99.999). It is not necessary to enter preceding zeros, but you must enter the decimal. For example, for 6%, enter 06.000 or 6.000.
3. Enter **00**. (Entries here set tax options for value added tax and or Canadian GST. See "Straight Percentage Tax Rate Programming" on page 119 for details.
4. Press the appropriate **TAX** key for the tax you are programming. (The TAX key must be assigned to a keyboard location.)
5. Press the **CASH** key to end programming.

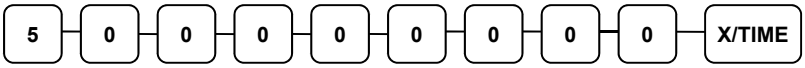
Tax Rate Programming Flowchart



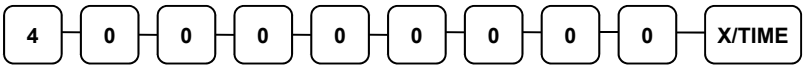
Programming Tax & Preset Status for Keyboard PLUs

Tax status and preset status for PLUs is set as part of the PLU Status Program, where many other PLU options are set as well. For many basic users, tax and preset status are the only necessary settings, so a short cut program sequence is shown here. If you need to review other PLU status options, go to "Program 100 - PLU Status Programming" on page 125 for detailed instructions.

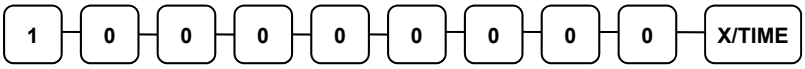
1. Turn the control lock to the **P** position.
2. To begin the program, enter **1 0 0**, press the **SUBTL** key.
3. Press a **PLU** key on the keyboard.
4. For an open-entry PLU taxable by tax rate 1, enter the nine digits as shown and press the **X/TIME** key:

   For a preset PLU taxable by tax rate 1, enter:

   For an open-entry, non-taxable PLU, enter:

   To return the PLU to the default, non-taxable, preset, status, enter:

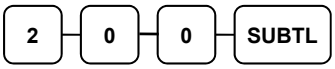
5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

Programming a Price for a Preset Keyboard PLU

If a PLU is programmed as open price, set the HALO (High Amount Lock Out) here. If a PLU is programmed as preset price, set the preset price here.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **2 0 0**, press the **SUBTL** key.



3. Press a **PLU** key on the keyboard.
4. If the PLU is open, enter a HALO of up to 7 digits. If the PLU is preset, enter a preset price. (Note: Do not enter the decimal. The maximum preset price you can enter is $50,000.00.) Press the **X/TIME** key.

5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

Programming a Descriptor for Keyboard PLUs

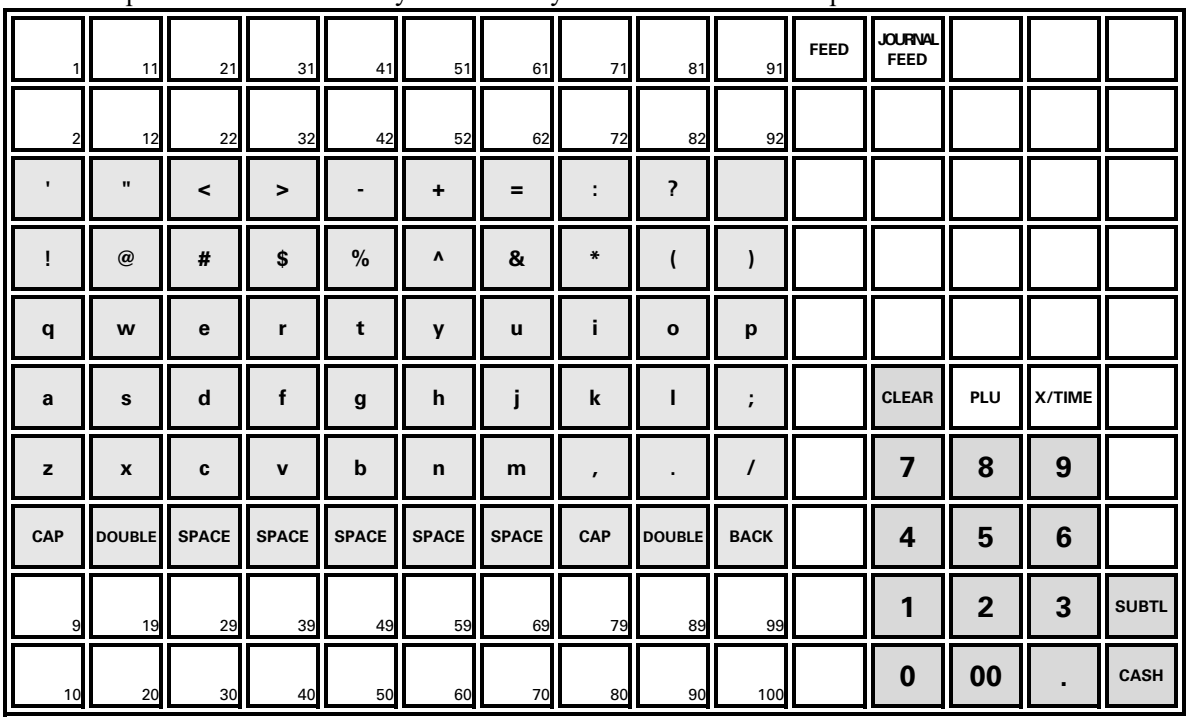
The default method of programming a descriptor will differ depending upon the specific ER-900 Series model you are programming.

ER-920 & ER-940 models feature a flat keyboard. The default descriptor program method is by the Alpha Keyboard Overlay.

ER-925, ER-945 and ER-915 models feature a raised-key keyboard. The default descriptor program method is by descriptor codes. Note that if you have expanded the keyboard on the ER-925/ER-945, descriptor entry by overlay method is optional. Consult with your dealer to determine the correct method of descriptor entry for your model.

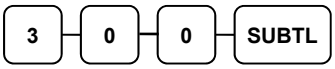
Descriptor Programming by Overlay Method for Flat Keyboard Models

Locate the Alpha Keyboard overlay included in your register's accessory package. Install the overlay under the protective rubber overlay. The overlay will look like the example below:



Note: You can program descriptors up to 18 characters, however only the first 16 will appear on the display.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **3 0 0**, press the **SUBTL** key.

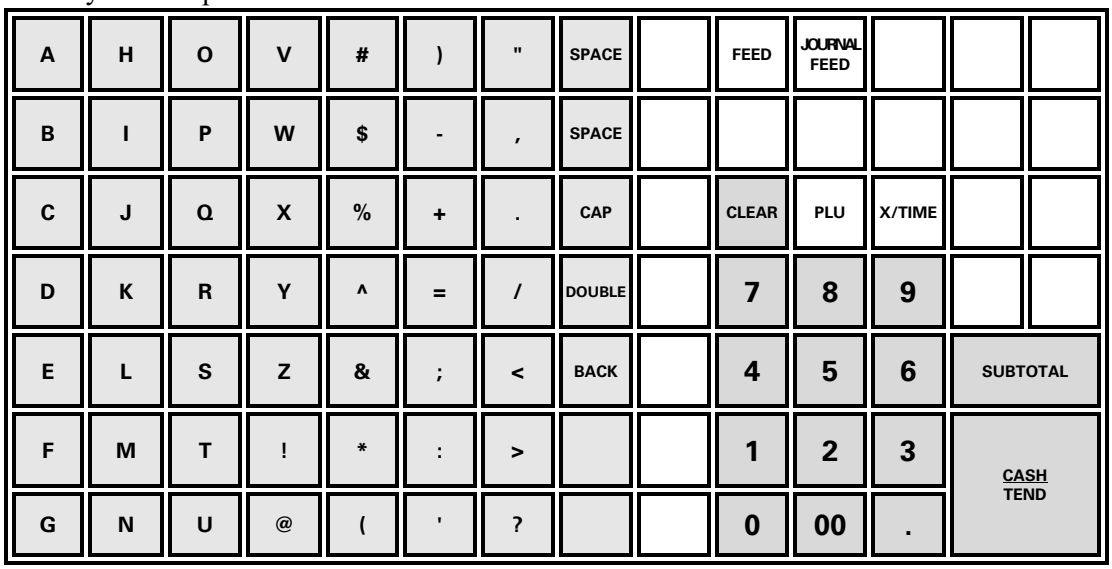
   

3. Press a **PLU** key on the keyboard you wish to program.
4. Type up to 18 descriptors on the overlay and press the **X/TIME** key.
5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

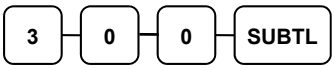
   

Descriptor Programming by Overlay Method for Raised Key Models

Descriptor programming by overlay is available on ER-925/945 raised-key models if you have installed the keyboard expansion kit.



1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **3 0 0**, press the **SUBTL** key.

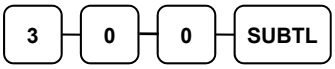
3. Press a **PLU** key on the keyboard you wish to program.
4. Type up to 18 descriptors on the overlay and press the **X/TIME** key.
5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

Descriptor Programming by Code Method for Raised Key Models

Note: the ER-915 must use the code method for descriptor programming.

1. Turn the control lock to the **PGM** position
2. To begin the program, enter **3 0 0**, press the **SUBTL** key.



3. Press a **PLU** key on the keyboard you wish to program
4. Enter codes from the Descriptor Code Chart on page 38. Enter up to 18 descriptors on the overlay and press the **X/TIME** key.
5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

Descriptor Code Chart

CHAR	Ç	ü	é	â	ä	à	å	ç	ê	ë
CODE	001	002	003	004	005	006	007	008	009	010
CHAR	è	ï	î	ì	Ä	Å	É	æ	Æ	ô
CODE	011	012	013	014	015	016	017	018	019	020
CHAR	ö	ò	û	ù	ÿ	ö	Ü	¢	£	¥
CODE	021	022	023	024	025	026	027	028	029	030
CHAR	€	SPACE	!	“	#	$	%	&	‘	(
CODE	031	032	033	034	035	036	037	038	039	040
CHAR	)	*	+	,	-	.	/	0	1	2
CODE	041	042	043	044	045	046	047	048	049	050
CHAR	3	4	5	6	7	8	9	:	;	<
CODE	051	052	053	054	055	056	057	058	059	060
CHAR	=	>	?	@	A	B	C	D	E	F
CODE	061	062	063	064	065	066	067	068	069	070
CHAR	G	H	I	J	K	L	M	N	O	P
CODE	071	072	073	074	075	076	077	078	079	080
CHAR	Q	R	S	T	U	V	W	X	Y	Z
CODE	081	082	083	084	085	086	087	088	089	090
CHAR							a	b	c	d
CODE	091	092	093	094	095	096	097	098	099	100
CHAR	e	f	g	h	i	j	k	l	m	n
CODE	101	102	103	104	105	106	107	108	109	110
CHAR	o	p	q	r	s	t	u	v	w	x
CODE	111	112	113	114	115	116	117	118	119	120
CHAR	y	z	BACK SPACE			Double				
CODE	121	122	123			999				

Operations

Function Key Descriptions

Keys are listed in alphabetical order. Many of the keys described below are not included on the default keyboard. See "Function Key Assignment Programming" on page 101 to add or change programmable keys.

Keyboard Legend	Description
#/NS	Use as a non-add key to print a numeric entry (up to 9-digits) on the receipt and journal. This entry will not add to any sales totals. The #/NS key is also used to open the cash drawer without making a sale.
X/TIME	Use to multiply a quantity of items or calculate split pricing on PLU entries.
00, 0-9, Decimal	Use to make numeric entries in REG, X, Z, VOID, or PGM positions. The decimal key is used for decimal or scale multiplication, when setting or entering fractional percentage discounts, or when programming fractional tax rates. Do not use the decimal key when making amount entries into PLUs.
ADD CHECK	Use to combine individual trays (such as in a cafeteria situation). Each tray subtotal can advance the consecutive number, depending on programming.
CANCEL	Cancels a transaction without updating PLU, or function key totals. The Cancel function may only be used prior to tendering. Once tendering begins, the Cancel function may no longer be used. The CANCEL key corrects the appropriate totals and counters and the Financial report records total of transactions canceled.
CASH	Use to finalize cash sales. Calculates the sale total including tax and opens the cash drawer. Change computation is allowed by entering an amount before pressing the CASH key. The cash drawer will open only if the amount tendered is equal to or greater than the total amount of the sale. Post tendering is also available should a second change calculation be necessary. Re-enter the tendered amount and press the CASH key to show the new change computation. Press the CASH key a second time to issue a buffered receipt when the receipt on/off function is OFF.
CHECK	Use to finalize check sales. Calculates the sale total including tax, finalizes the sale, and opens the cash drawer. Change computation is allowed by entering an amount before pressing the CHECK key. The cash drawer will open only if the amount tendered is equal to or greater than the total amount of the sale. Change issued will be subtracted from the cash-in-drawer total.
CHECK CASHING	Use to exchange a check for cash. Cash-in-drawer and check-in-drawer totals are adjusted.

Keyboard Legend	Description
CHECK ENDORSEMENT	Use to print a check endorsement message on an optional slip printer after a check has been tendered. See "Programming the Receipt/Check Endorsement Message" on page 192 to program an endorsement message.
CHARGE (1-8)	Use to finalize charge sales. Calculates the sale total including tax, finalizes the sale, and opens the cash drawer. Change computation is allowed by entering an amount before pressing the CHARGE key. The cash drawer will open only if the amount tendered is equal to or greater than the total amount of the sale. Change issued will be subtracted from the cash-in-drawer total.
CHECK #	The CHECK # key is used to begin a new or access an existing balance (hard check) or itemized bill (soft check). Check track numbers that are entered manually may be set at a fixed length of one to nine digits. Check track numbers assigned automatically will begin with #1. Existing checks are accessed by entering the check track number and pressing the CHECK # key.
CLEAR	Use to clear entries made into the 10-key numeric pad or X/TIME key before they are printed. Also used to clear error conditions.
CLERK	The register will not operate in register mode unless a clerk has been signed on. Direct or secret code sign on procedures accomplishes clerk sign-on. All entries made on the register will report to one of the 10 clerk totals. When a clerk is signed on, all entries following will add to that clerk's total until another clerk is signed on. To sign a clerk off, enter 0 (zero) and then press the CLERK key. The "CLOSED" message displays. The register cannot be operated until another clerk is signed on. The current clerk must first be signed off before another clerk may be signed on.
CONV (1-4)	The currency conversion function, allowed after subtotal, converts and displays the new subtotal at a preprogrammed exchange rate. Tendering is allowed after using the currency conversion function. Change is calculated and issued in home currency. The amount of foreign currency tendered is stored in a separate total on the Financial report, but not added to the drawer total.
EAT-IN **TAKE OUT** **DRIVE THRU**	Eat-In, Take Out and Drive Thru are subtotal functions. In areas that have different tax rules for eat-in and take out sales, the EAT-IN, TAKE OUT and DRIVE THRU keys can be programmed to automatically charge or exempt taxes. Sales may not be split between Eat-In, Take Out and Drive Thru. The EAT-IN, TAKE OUT and DRIVE THRU keys maintain separate totals on the Financial report.
ERROR CORR	Use to correct the last entry. The ERROR CORR key corrects the appropriate totals and counters.
F/S SHIFT	When pressed before a PLU entry, the F/S SHIFT key reverses the preprogrammed food stamp status of the PLU. For example, an item not food stamp eligible can be made food stamp eligible.
F/S SUB	Displays the amount of the sale that is food stamp eligible.
F/S TEND	Use to tender food stamps for eligible sales.
FINALIZE	Pressing before closing a check will close the account and the account number will no longer be reported on the open check report. The system option for charge posting must be set to "Y" in order to use this function.
GUEST #	Use to enter the count of guests served.

Keyboard Legend	Description
JOURNAL FEED	Advances the journal paper one line, or continuously until the key is released.
MACRO (1-10)	Macro keys may be programmed to record, and then later perform, up to 50 keystrokes. For example, a macro key could be set to tender (preset tender) a common currency, such as $5 into the cash key.
MDSE RETURN	Used to return or refund merchandise. Returning an item will also return any tax that may have been applied.
MODIFIER (1-5)	A modifier key alters the next PLU registered, either by changing the code number of the PLU so that a different item is registered, or by adding the modifier descriptor (and not changing the code of the subsequent PLU.)
P/BAL	Use to enter the amount of an outstanding balance.
PAID OUT (1-3)	Use to record money taken from the register to pay invoices, etc. The paid out amount subtracts from the cash-in-drawer total. Paid outs are allowed outside of a sale only.
% 1 - % 5	Up to five % keys may be placed on the keyboard. Each % key is set with a specific function, such as item discount or surcharge, or sale discount or surcharge. The percent rate may be entered or preprogrammed, or the percent keys can be programmed with a negative open or preset price, thus acting as coupon keys.
PLU	The PLU key is used to register price lookups by number entry. PLU's can be programmed open or preset, and positive or negative.
PAYMENT	Press to make a payment, partial payment, or pre-payment while posting to a check (account). If the payment amount exceeds the check balance, a credit balance will be maintained. The system option for charge posting must be set to "Y" in order to use this function.
PAY TENDER	Functions like the Payment key, exempt if the payment amount exceeds the check balance, the overpayment will be issued as change and the account balance will be zeroed. The system option for charge posting must be set to "Y" in order to use this function.
PRINT CHECK	Use to print a guest check. The check can be printed on an optional (RS-232C) printer or can be printed on the receipt printer. The PRINT CHECK key can be set to automatically service the check.
PROMO	The PROMO key allows you to account for promotional items, as in "buy two, get one free". Pressing this key will remove an item's cost from the sale but will include the sale of the item in the item's sales counter.
RECT FEED	Advances the receipt paper one line, or continuously until the key is released.
RCPT ON/OFF	When 'OFF' no receipt will print during a sale. (If the receipt is off, a buffered receipt is available by pressing the CASH key a second time.)
RECD ACCT (1-3)	The RA (received on account) key is used to record media loaned to the cash drawer, or payments received outside of a sale. The cash drawer will open. The amount received adds to the cash-in-drawer total.
SCALE	Use to make weight entries. When a scale is attached, press the scale key to show the weight in the display, then press (or enter) a PLU to multiply the weight times the price. When a scale is not attached, you can enter the weight (using the decimal key for fractions). PLU's may be programmed to require an entry through the scale key.
SERVICE	Use to store Previous Balance or Check/Table tracking transactions.

Keyboard Legend	Description
SUBTL	Displays subtotal of sale including tax. Must be pressed prior to a sale discount or sale surcharge.
TABLE #	Tracks the current balance for a guest check or table.
TARE	Tares are container weights. If you are using the scale function, you can preset up to 5 different tare weights. The tare can be subtracted automatically when a specific PLU is registered, or manually inputting the tare number and pressing the TARE key can subtract the tare. Tare #5 can be programmed for entering tare weights manually.
TAX EXEMPT	Press the TAX EXEMPT key to exempt tax 1, tax 2, tax 3, and/or tax 4 from the entire sale.
TAX (1-4) SHIFT	When pressed before a PLU entry, the tax shift keys reverse the tax status of the PLU, i.e., a PLU with non-tax status would become taxable or a PLU with tax status would become non-taxable.
TIP	The TIP key allows a gratuity to be added to a guest check before payment. The TIP key may be programmed as either a percentage or amount. If programmed as a percentage, tax programming defines whether the percentage is calculated on the net amount, or the amount after taxes.
VOID	Use to correct an item entered earlier within a sale. The VOID key corrects the appropriate totals and counters. To correct the last item, use the ERROR CORR key. For void operations outside of a sale (Transaction Void), use the VOID position on the control lock. The Financial report records totals for each type of void separately.
VALIDATION	If you are using an optional slip printer, you can press the VALIDATION key to print a three-line validation on a separate form or piece of paper. Any item registration, discount or payment may be validated
WASTE	Allows control of inventory by accounting for items that must be removed from stock due to spoilage, breakage or mistakes. Press the WASTE key before entering wasted items, and then press the WASTE key again to finalize. The WASTE key may be under manager control, requiring the control lock to be in the X position. The WASTE key is not allowed within a sale.

Clerk Sign-On/Sign-Off

The number of clerks available is determined by memory allocation; the default configuration provides 10 clerks. See "System Option Programming" to review your clerk options: (System option #2 allows you to select direct or code entry sign on, option #3 allows you to select stay-down or pop-up operation, and option #26 allows you select clerk interrupt operations.)

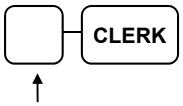
Depending on how your register has been programmed, sign-on will take place only at the beginning of a shift (stay-down) or may have to be repeated for each transaction (pop-up). Normally, if your register has been programmed for stay-down clerks, the clerk currently signed on must be signed off before another clerk may be signed on. If you have selected the clerk interrupt option, a new clerk can be signed on in the middle of a transaction. In this circumstance, the initial transaction is suspended. When the interrupt transaction is completed, the suspended transaction can be continued.

Check with your store manager to see which options have been selected for your register.

Before any transaction may take place, a clerk must be signed on. Clerk sign-on is accomplished in one of two ways, Direct Sign-On or Coded Sign-On.

Direct Sign-On

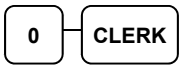
If the direct sign-on method is selected, enter the clerk number and press the clerk key.



Clerk # (1-10)

```
DATE 06/14/2011 SUN   TIME 08:37

================================
CLERK LOG IN
================================
CLERK 1                       01
CLERK LOG IN TIME          09:06
CLERK 1          000001   00001
```

To sign the clerk off, enter 0 (Zero) and press the clerk key.




```
DATE 06/14/2011 SUN   TIME 08:37

================================
CLERK LOG OUT
================================
CLERK 1                       01
CLERK LOG OUT              09:06
CLERK 1          000001   00001
```

Coded Sign-On

If the code entry sign-on method is selected, press the **CLERK** key, enter the **CLERK CODE**, and then press the **CLERK** key again.

Clerk Code (up to 6 digits)

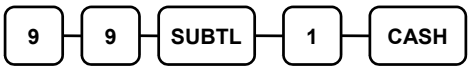
To sign the clerk off, enter **0** (Zero) and press the **CLERK** key.

Receipt On and Off

The RECEIPT ON/OFF function key may or may not be located on your keyboard. (The RECEIPT ON/OFF key is not located on the default keyboard.)

If the RECEIPT ON/OFF Key is Not Located on the Keyboard

1. Turn the control lock to the **X** position.
2. To turn the receipt ***OFF***: enter **9 9**, press the **SUBTL** key. Enter **1**, press **CASH**.



3. To turn the receipt ***ON***: enter **9 9**, press the **SUBTL** key. Enter **0**, press **CASH**.

If the RECEIPT ON/OFF Key is Located on the Keyboard

- Press the **RECEIPT ON/OFF** key once to turn the receipt *off*.
- Press the **RECEIPT ON/OFF** key again to turn the receipt *on*.

PLU Registrations

All sale registrations on *ER-900 series ECR* are entered into either open or preset PLUs.

- In place of traditional department keys, keyboard PLU keys are located directly on the keyboard. Keyboard PLU keys can be programmed to access a specific PLU. In the default configuration Keyboard PLU key #1 will access PLU #1. See "Program 1000 – NLU Code Programming" on page 200 if you wish to change the PLU assigned to a Keyboard PLU key. For example, you could have keyboard PLU key #1 access PLU #2345.
- The number of keyboard PLU's depends upon the specific model register and the program installed. Refer to the sections "Keyboards" on page 17 and "Keyboard Expansion" on page 31 for details.
- When more items or categories are needed than the number of PLUs available on the keyboard, registrations can be into PLUs by entering the PLU code number and pressing the PLU key on the keyboard, or if an optional scanner is used, items can be registered by scanning the item.

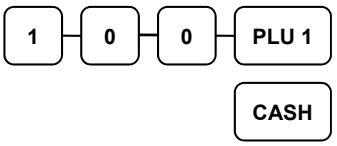
This system simplifies reporting by listing all items (regardless of how they are entered) on the PLU report, while reporting for groups of items or categories is available from the Group report.

Keyboard PLU Entries

As you make PLU registrations, you can follow your entries by viewing the display.

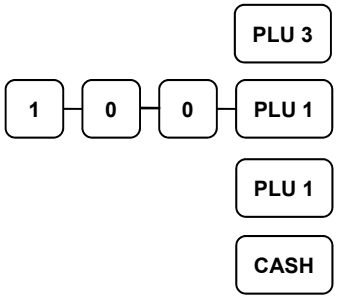
In the following examples:

- PLU1 is programmed for open entries and is taxable by Tax 1.
- PLU2 is programmed for open entries and is taxable by Tax 2.
- PLU3 is programmed with a preset price of $3.00 and is taxable by both Tax 1 and Tax 2.
- Tax 1 is programmed at 5%; Tax 2 is programmed at 10%.




```
DATE 06/14/2011 SUN   TIME 08:37

PLU1 T1                      $1.00
TAX1                         $0.05
TOTAL                        $1.05
CASH                         $1.05
CLERK 1          000001      00001
```

Open Keyboard PLU Entry

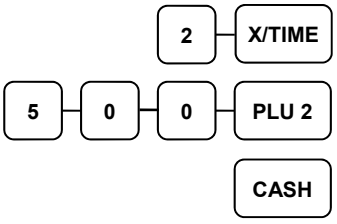



```
DATE 06/14/2011 SUN   TIME 03:15

PLU3 T12                     $3.00
PLU1 T1                      $1.00
PLU1 T1                      $1.00
TAX1                         $0.25
TAX2                         $0.30
TOTAL                        $5.55
CASH                         $5.55
CLERK 1          000001      00001
```

Single Preset PLU

Single Open PLU

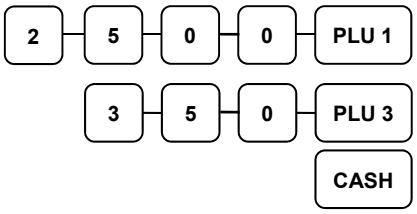
Repeat PLU Item




```
DATE 06/14/2011 SUN   TIME 03:15

2X             @5.00
PLU2 T2                     $10.00
TAX2                         $1.00
TOTAL                       $11.00
CASH                        $11.00
CLERK 1          000001      00001
```

Multiple Quantity of a PLU Entry

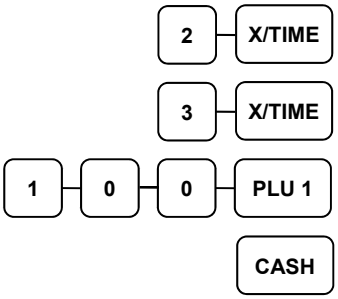
Note: PLU program setting must be made to allow this override. Turn Key Lock to the **X** position if set for manager control.




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                    $25.00
PLU3 T12                    $3.50
TAX1                        $1.43
TAX2                        $0.35
TOTAL                      $30.28
CASH                       $30.28
CLERK 1          000001     00001
```

HALO Override on PLU Entry

Preset Override of a Keyboard PLU



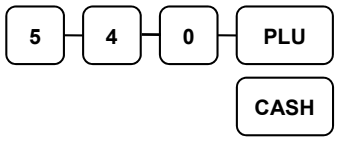

```
DATE 06/14/2011 SUN   TIME 03:15

2@3FOR          @1.00
PLU1 T1                     $0.67
TAX1                        $0.03
TOTAL                       $0.70
CASH                        $0.70
CLERK 1          000001     00001
```

Split Pricing PLU Entry

Numeric PLU Entries

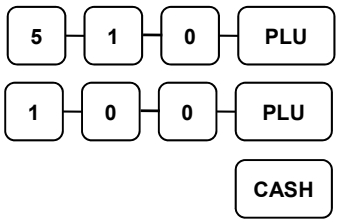
In the following examples:

- PLU510 is programmed open and is taxable by Tax 1.
- PLU520 is programmed open and is taxable by Tax 2.
- PLU530 is programmed with a preset price of $1.50 and is taxable by Tax 1 and Tax 2.
- PLU540 is programmed with a preset price of $2.50 and is non-taxable.



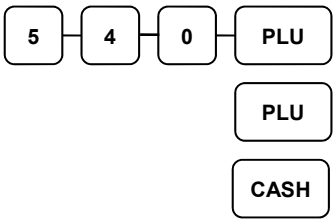

```
DATE 06/14/2011 SUN   TIME 03:15

#540                          $2.50
TOTAL                         $2.50
CASH                          $2.50
CLERK 1          000001       00001
```

Preset PLU Entry




```
DATE 06/14/2011 SUN   TIME 03:15

#510 T1                       $1.00
TAX1                          $0.05
TOTAL                         $1.05
CASH                          $1.05
CLERK 1          000001       00001
```

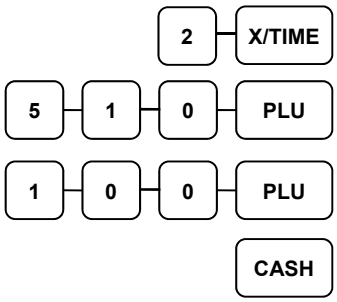
Single Open PLU Entry




```
DATE 06/14/2011 SUN   TIME 03:15

PLU540                        $2.50
PLU540                        $2.50
TOTAL                         $5.00
CASH                          $5.00
CLERK 1          000001       00001
```

Single Preset PLU Entry

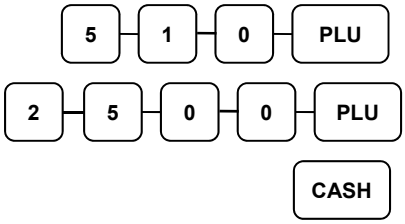
Repeat Entry




```
DATE 06/14/2011 SUN   TIME 03:15

2X              @1.00
#510 T1                      $2.00
TAX1                         $0.10
TOTAL                        $2.10
CASH                         $2.10
CLERK 1          000001      00001
```

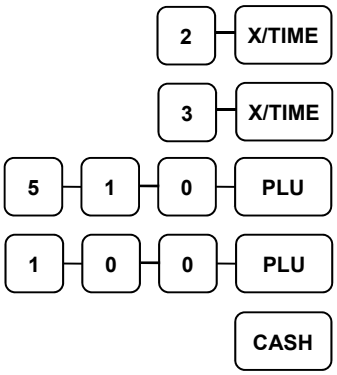
Multiple Quantity of an Open PLU Entry

Note: PLU program setting must be made to allow this override.
Turn Key Lock to the **X** position if set for manager control.




```
DATE 06/14/2011 SUN   TIME 03:15

PLU510 T1                   $25.00
TAX1                         $1.25
TOTAL                       $26.25
CASH                        $26.25
CLERK 1         00001        00000
```

HALO Override on PLU Entry




```
DATE 06/14/2011 SUN   TIME 03:15

2@3FOR          @1.00
PLU510 T1                    $0.67
TAX1                         $0.03
TOTAL                        $0.70
CLERK 1         00001        00000
```

Split Pricing PLU Entry

Modifier Entries

Pressing a modifier key alters the next PLU registered, either by changing the code number of the PLU so that a different item is registered, or by just adding the modifier descriptor and registering the same PLU. See "Modifier 1-5" in the "P-Mode Programming" chapter to determine how the modifier key will affect the PLU entry.

Modifiers can be:

- ***Stay Down*** so that registrations will be modified by the same modifier until another modifier is selected,
- ***Pop-Up after each item*** to register, for example: large, medium or small soft drink,
- ***Pop-Up after each transaction*** to register, for example: toppings of various pizza sizes.

See "System Option Programming" in the "P-Mode Programming" chapter to select the status for modifiers as Stay-Down or Pop-Up operation.

Pop-Up Modifier Key Affecting PLU Code

1. Press a preset PLU key. For example, press **PLU 1** with a price of $1.00.

   PLU 1

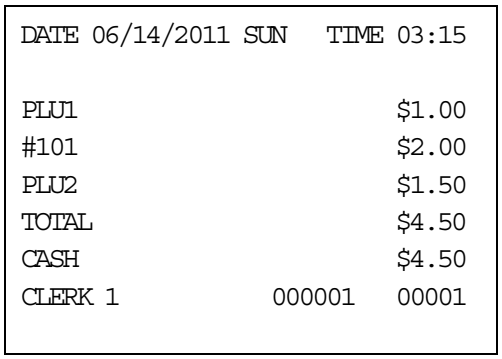
2. Press the **MOD 1** key.

   MOD 1

3. Press the **same PLU** key. In this example the modifier 1 will add the digit 1 to the third PLU # position, resulting in the registration of PLU #101.

   PLU 1

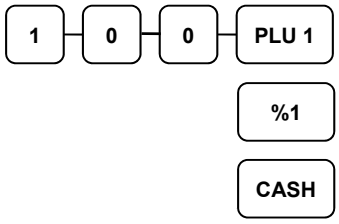
4. Press another PLU key. In this example press **PLU 2** with a price of $1.50.



Percentage Key (%) Registrations

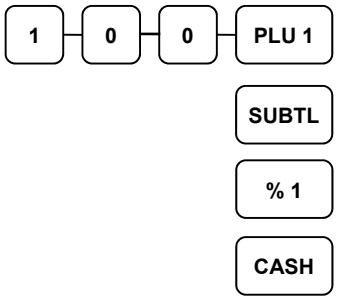
There is one percentage key on the default *ER-925/945* keyboard; there are four percentage keys on the default *ER-920/940* keyboard. Through "Function Key Assignment Programming" (see page 101) up to five percentage keys may be placed on the keyboard. Each key is individually programmable to add or subtract, from an individual item or from a sale total, amounts (coupons) or percentages. You can also program the percentage key taxable or non-taxable, so that sales taxes are calculated on the net, or gross amount of the item or sale.

The operation examples in this section show the percentage key in a variety of configurations. See "%1-%5 Function Key Options" on page 181 to assign a specific function to each percentage key.



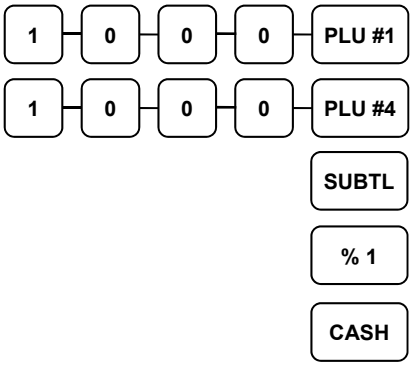

```
DATE 06/14/2011 SUN   TIME 03:15
PLU1 T1                    $1.00
% 1                      10.000%
AMOUNT T1                  $0.10
TAX1                       $0.06
TOTAL                      $1.16
CASH                       $1.16
CLERK 1          000001    00001
```

Preset 10% Surcharge on an Item



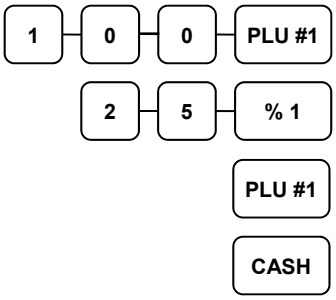

```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                    $1.00
% 1                     -10.000%
AMOUNT T1                 -0.10
TAX1                       $0.05
TOTAL                      $0.95
CASH                       $0.95
CLERK 1          000001    00001
```

Preset 10% Discount on a Sale



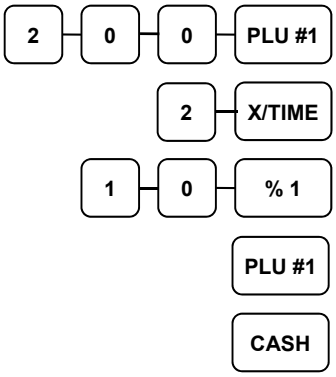

```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                    $10.00
PLU4                       $10.00
% 1                        10.00%
AMOUNT T1                   $2.00
TAX1                        $0.55
TOTAL                      $22.55
CASH                       $22.55
CLERK 1          000001    00001
```

Preset 10% Surcharge on a Sale



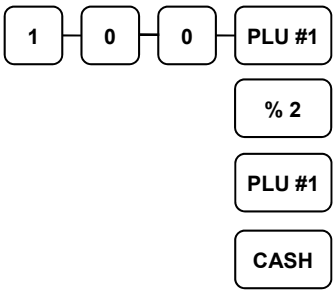

```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $1.00
PLU1 CT1                    -0.25
TAX1                        $0.04
TOTAL                       $0.79
CASH                        $0.79
CLERK 1          000001    00001
```

Store Coupon Entry (Open Amount Discount on an Item)



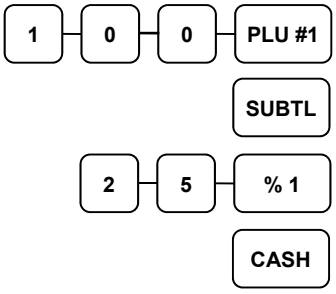

```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $2.00
2X              @0.10
PLU1 CT1                    -0.20
TAX1                        $0.09
TOTAL                       $1.89
CASH                        $1.89
CLERK 1          000001    00001
```

Multiple Store Coupon Entry (Open Amount Discount on an Item)



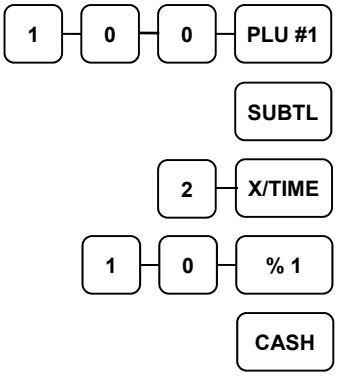

```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $1.00
PLU1 CT1                    -0.50
TAX1                        $0.03
TOTAL                       $0.53
CASH                        $0.53
CLERK 1          000001     00001
```

Preset Store Coupon (Preset Amount Discount on an Item)



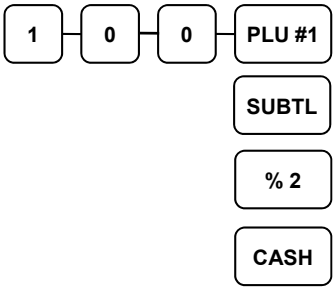

```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $1.00
%1 T1                       -0.25
TAX1                        $0.04
TOTAL                       $0.79
CASH                        $0.79
CLERK 1          000001     00001
```

Vendor Coupon Entry (Open Amount Discount on a Sale)




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $1.00
2X          @0.10
%1 T1                       -0.20
TAX1                        $0.04
TOTAL                       $0.84
CASH                        $0.84
CLERK 1          000001     00001
```

Multiple Vendor Coupon Entry (Open Amount Discount on a Sale)




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $1.00
%1 T1                       -0.50
TAX1                        $0.03
TOTAL                       $0.53
CASH                        $0.53
CLERK 1          000001     00001
```

Preset Vendor Coupon Entry (Preset Amount Discount on a Sale)

Price Level Key

If you choose to use the price level feature, you must allocate memory for each level. See "Memory Allocation" in the "S-Mode Programming" chapter. Note that the default program selects one price level. You must also place price level keys on the keyboard. See "Function Key Assignment" in the "P-Mode Programming" chapter.

If you use this feature, the same PLU can be given two different preset prices. Price Level keys shift the price that is being registered. Levels can be:

- ***Stay Down*** so that registrations will stay in the selected level until another level is selected,
- ***Pop-Up after each item*** to register, for example large, medium or small soft drink,
- ***Pop-Up after each transaction*** to register the same level until the transaction is finalized.

See "System Option Programming" in the "P-Mode Programming" chapter to set the status for how the price level keys operate.

Pop-Up After Item Price Level Keys

1. Press a preset PLU key. For example, press **PLU 1** programmed with a price of $1.00 for price level 1.

2. Press the **LEVEL 2** key. The message "LEVEL 2" displays.

3. Press the same **PLU** key. In this example the PLU 1 key is programmed with a price of $2.00 for price level 2.

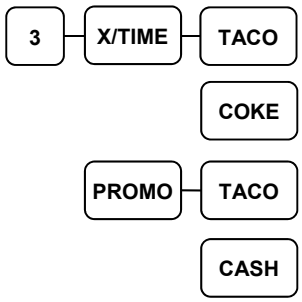
   

4. Press another PLU key. In this example press **PLU 2** programmed to register PLU #2 with price level 1. Note that the level 1 price is registered.

```
          THANK-YOU
          CALL AGAIN

DATE 06/05/2011 SUN TIME 08:33

PLU1                        $1.00
PLU1                        $2.00
PLU2                        $1.50
TOTAL                       $4.50
CASH                        $4.50
CLERK 1      No.000011      00001
```

Promo Function

The PROMO key allows the operator to account for promotional items (i.e. buy two, get one free). By design, this key will remove the items cost from the sale, but not the count. In the example of buy two, get one free, the reported count remains three items, but the customer is only charged for two.



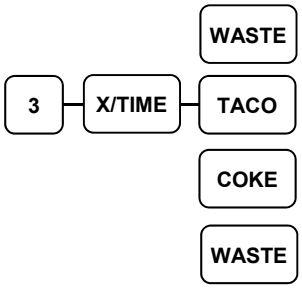

```
DATE 06/14/2011 SUN   TIME 13:15

3X                          @0.89
TACO T1                     $2.67
COKE T1                     $0.69
         *** PROMO ***
TACO T1                     $0.89
TAX1                        $0.16
TOTAL                       $2.63
CASH                        $2.63
CLERK 1          000001   00001
```

Promo Entry

Waste Function

The WASTE key allows control of inventory by accounting for items that must be removed from stock due to spoilage, breakage, or mistakes. With manager control, the WASTE key requires the control lock to be in the X position. The WASTE key is not allowed within a sale.

Waste operations begin and end with by pressing the WASTE key.



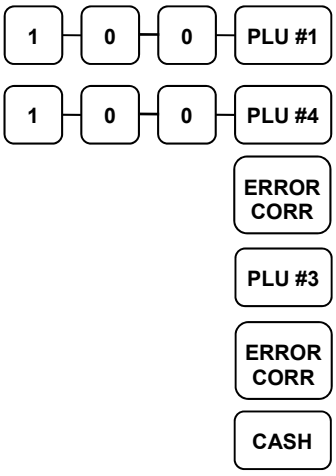

```
DATE 06/14/2011 SUN   TIME 13:15

         *** WASTE ***
3X                          @0.89
TACO T1                     $2.67
COKE T1                     $0.69
         *** WASTE ***
TOTAL                       $3.36
CLERK 1          000001   00001
```

Waste Entry

Void and Correction Operations

Error Correct

The error correct function voids the last item entered, provided no other key has been pressed.

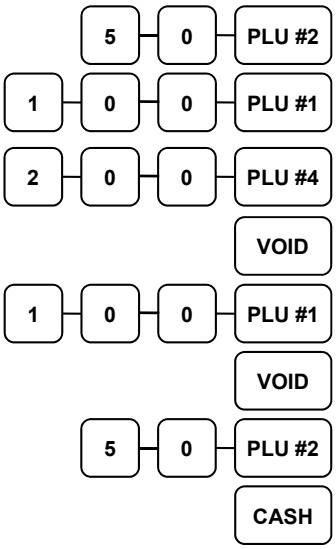



```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $1.00
PLU4                        $2.00
ERRCORR -------------------------
PLU4                       -2.00
PLU3 T12                    $3.00
ERRCORR -------------------------
PLU3 T12                   -3.00
TAX1                        $0.05
TOTAL                       $1.05
CASH                        $1.05
CLERK 1          000001   00001
```

Error Correction

Previous Item Void

The void function allows the correction of any item previously entered in the current transaction.

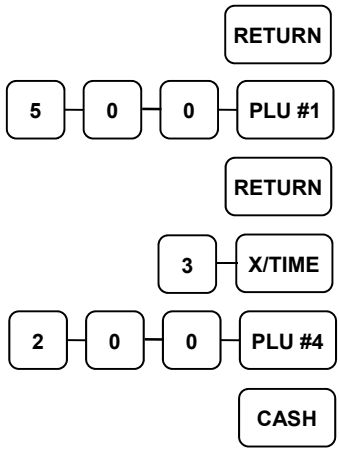



```
DATE 06/14/2011 SUN   TIME 03:15

PLU2 T2                     $0.50
PLU1 T1                     $1.00
PLU4                        $2.00
VOID ----------------------------
PLU1 T1                    -1.00
VOID ----------------------------
PLU2 T2                    -0.50
TOTAL                       $2.00
CASH                        $2.00
CLERK 1          000001   00001
```

Previous Item Void

Merchandise Return

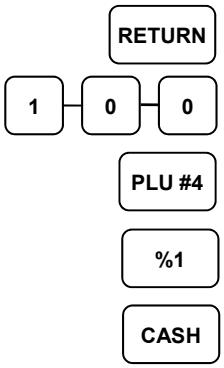
Merchandise returns may be registered as part of a separate transaction, or as part of a transaction where other merchandise is sold. Press the RETURN key before entering the related PLU. Tax is credited if the item being returned is taxable.




```
DATE 06/14/2011 SUN   TIME 03:15

RETURN**************************
PLU1 T1                    -5.00
RETURN**************************
3X           @2.00
PLU4                       -6.00
TAX1                       -0.25
TOTAL                     -11.25
CASH                      -11.25
CLERK 1          000001   00001
```

Merchandise Return

Multiple Item Merchandise Return

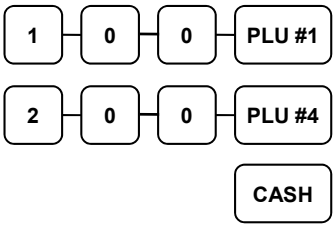



```
DATE 06/14/2011 SUN   TIME 03:15

RETURN**************************
PLU4                       -1.00
%1                      -10.000%
AMOUNT                     $0.10
TOTAL                      -0.90
CASH                       -0.90
CLERK 1          000001   00001
```

Merchandise Return of Discounted Merchandise

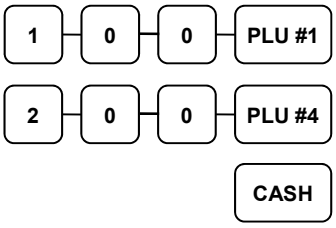
VOID Control Lock Position (Transaction Void)

Most operations that can be performed with the control lock in the REG position, can also be done with the control lock in the VOID position. VOID position operations will adjust all sale totals, and the VOID (Transaction Void) position carries its own total on the Financial report.




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $1.00
PLU4                        $2.00
TAX1                        $0.05
TOTAL                       $3.05
CASH                        $3.05
CLERK 1          000001     00001
```

Original Transaction



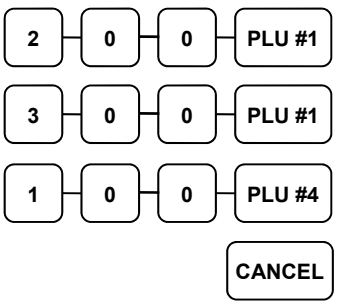

```
DATE 06/14/2011 SUN   TIME 03:15

VOID MODE************************
PLU1 T1                    -1.00
PLU4                       -2.00
TAX1                       -0.05
TOTAL                      -3.05
CASH                       -3.05
CLERK 1          000001    00001
```

Transaction Void of Original Transaction

Cancel

Press the CANCEL key anytime during a transaction to cancel that transaction. (This is not a tender key.) Transactions of up to a maximum of 49 items may be canceled.

The only total affected is the Cancel total, to which the total of all positive entries is added.




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $2.00
PLU1 T1                     $3.00
PLU4                        $1.00
CANCEL***************************
CLERK 1          000001     00001
```

Canceled Transaction

Subtotal Operations

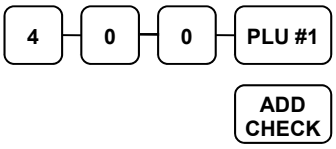
Subtotal

Press the SUBTL key at any time during a transaction to view the total due, including tax and after adjustments. The display will indicate Sub for subtotal.

Add Check (Tray Subtotal)

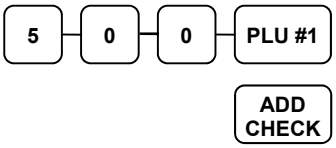
In a cafeteria, use the ADD CHECK key to add multiple trays that are paid by a single individual (i.e. Dad pays all the trays for the family.)

Press the ADD CHECK key after each order, and SUBTL for the total of all orders. Finalize with any tender key as you would a normal sale.




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                    $4.00
TAX1                       $0.20
TOTAL                      $4.20
ADDCHK                     $4.20
CLERK 1          000001    00001
```

First Check Added




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                    $5.00
TAX1                       $0.25
TOTAL                      $5.25
ADDCHK                     $5.25
CLERK 1          000002    00001
```

Second Check Added

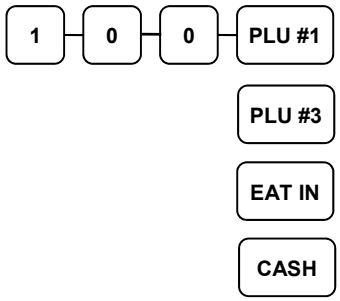

```
DATE 06/14/2011 SUN   TIME 03:15

TOTAL                      $9.45
CASH                       $9.45
CLERK 1          000003    00001
```

Payment for Both Checks

Eat-In/Take-Out/Drive Thru Operations

In a restaurant, EAT-IN, TAKE-OUT and DRIVE THRU keys can be set up to provide totals for each type of sale. The EAT-IN, TAKE-OUT and DRIVE THRU keys may also be set up to remove taxes. For example, if your state charges sales tax for food consumed on the premises, while not charging sales tax for food taken home, sales tax can be exempted with the TAKE-OUT key. See "DRIVE THRU / EAT IN / TAKE OUT - Function Key Options" on page 163 to set up tax status for these keys.

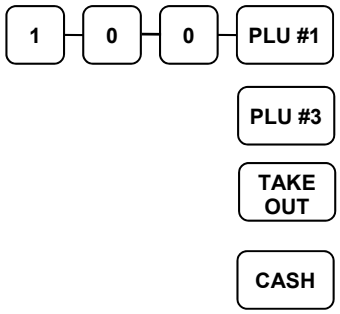
After registering all items, press EAT-IN, TAKE-OUT or DRIVE THRU (as you would use the Subtotal key), and then finalize the sale as you normally would.




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                      $1.00
PLU3 T12                     $3.00
         ==== EATIN ====
TAX1                         $0.20
TAX2                         $0.30
TOTAL                        $4.50
CASH                         $4.50
CLERK 1           000001     00001
```

EAT IN Transaction

(Tax is Charged)




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                      $1.00
PLU3 T12                     $3.00
         ==== TKOUT ====
TOTAL                        $4.00
CASH                         $4.00
CLERK 1           000001     00001
```

TAKE OUT Transaction

(Tax is Removed from Taxable Items)


```
DATE 06/14/2011 SUN   TIME 03:15

PLU3 T12                     $3.00
         ==== DVTHR ====
TOTAL                        $3.00
CASH                         $3.00
CLERK 1           000001     00001
```

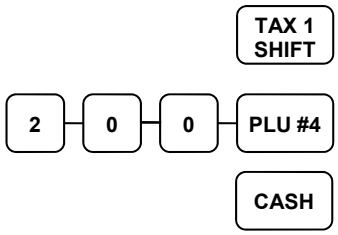
DRIVE THRU Transaction

(Tax is Removed from Taxable Items)

Tax Shift Operations

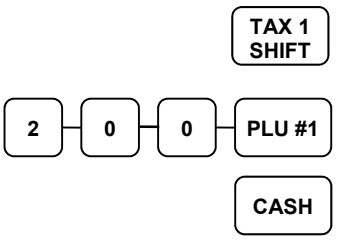
When tax shift operations are performed, the appropriate tax will display before the entry.

- To charge a tax or taxes on a non-taxable item press the appropriate tax shift key or keys prior to making the non-taxable PLU entry.
- To exempt a tax or taxes on a taxable item press the appropriate tax shift key or keys prior to making the taxable PLU entry.
- To exempt a tax or taxes from an entire sale, press the appropriate tax shift key or keys prior to finalizing the transaction.



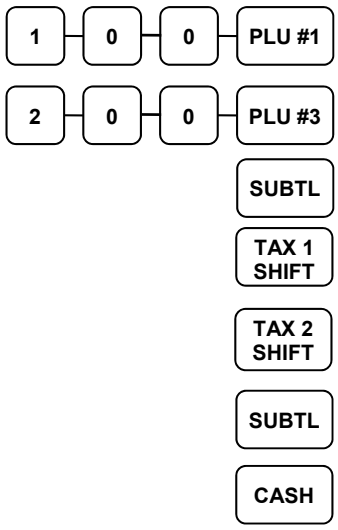

```
DATE 06/14/2011 SUN   TIME 03:15

PLU4 T1                      $2.00
TAX1                         $0.10
TOTAL                        $2.10
CASH                         $2.10
CLERK 1          000001      00001
```

To Charge Tax On a Non-Taxable PLU



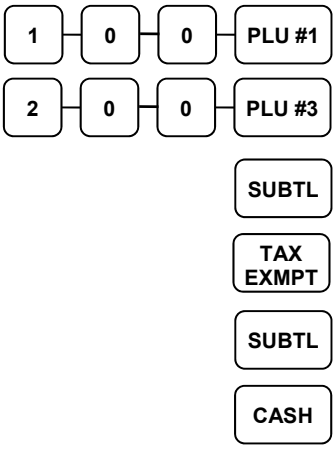

```
DATE 06/14/2011 SUN   TIME 03:15

PLU1                         $2.00
TOTAL                        $2.00
CASH                         $2.00
CLERK 1          000001      00001
```

To Exempt Tax On a Taxable PLU




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                      $1.00
PLU3 T12                     $2.00
TOTAL                        $3.00
CASH                         $3.00
CLERK 1          000001      00001
```

To Exempt Specific Taxes On Entire Sale



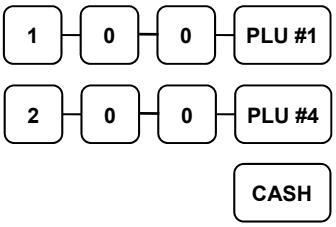
DATE 06/14/2011 SUN TIME 03:15

PLU1 T1		$1.00
PLU3 T12		$2.00
TOTAL		$3.00
CASH		$3.00
CLERK 1	000001	00001

To Exempt Tax On Entire Sale with Pre-Programmed Tax Exempt Key

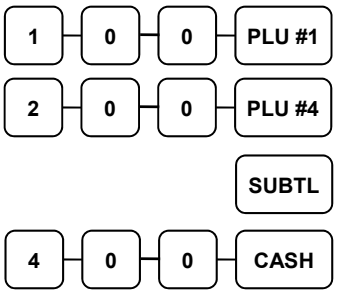
Tendering Operations

Cash




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $1.00
PLU4                        $2.00
TAX1                        $0.05
TOTAL                       $3.05
CASH                        $3.05
CLERK 1          000001     00001
```

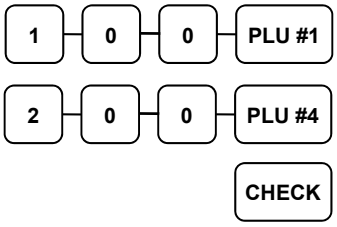
Cash Tender (exact amount of purchase)




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $1.00
PLU4                        $2.00
TAX1                        $0.05
TOTAL                       $3.05
CASH                        $4.00
CHANGE                      $0.95
CLERK 1          000001     00001
```

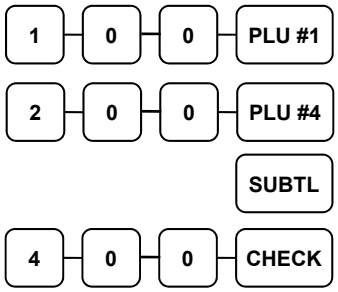
Cash Tender with Change

Check




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $1.00
PLU4                        $2.00
TAX1                        $0.05
TOTAL                       $3.05
CHECK                       $3.05
CLERK 1          000001     00001
```

Check Tender (exact amount of purchase)




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                      $1.00
PLU4                         $2.00
TAX1                         $0.05
TOTAL                        $3.05
CHECK                        $4.00
CHANGE                       $0.95
CLERK 1          000001   00001
```

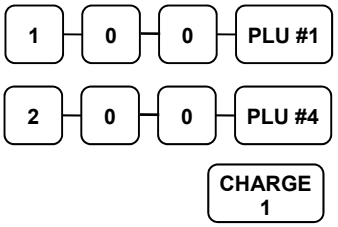
Check Tender with Change


```
DATE 06/14/2011 SUN   TIME 03:15

        *** CHKCASH ***
CHECK                       $10.00
CASH                        -10.00
CLERK 1          000001   00001
```

Check Cashing

Charge

Tendering and over tendering into charge keys is allowed.




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                      $1.00
PLU4                         $2.00
TAX1                         $0.05
TOTAL                        $3.05
CHARGE1                      $3.05
CLERK 1          000001   00001
```

Charge Total

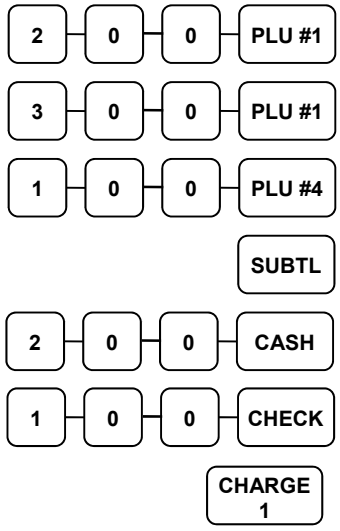
Receipt on Request

If a customer requests a receipt after a sale has been finalized, a second depression of the **CASH** key will issue a complete buffered receipt. See option #6 in "System Option programming" on page 138 and option #24 in "Print Option Programming" on page 146.

Note: A maximum of approximately 224 items may be registered in single sale.

Split Tender

The drawer will not open until the final balance has been paid.

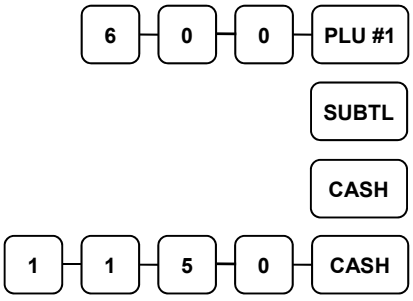



```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $2.00
PLU1 T1                     $3.00
PLU4                        $1.00
TAX1                        $0.25
TOTAL                       $6.25
CASH                        $2.00
TOTAL                       $4.25
CHECK                       $2.00
TOTAL                       $2.25
CHARGE1                     $2.25
CLERK 1          000001     00001
```

Cash, Check & Charge Payments on the Same Transaction

Post Tendering

Post tendering is available for computing change after a sale has been finalized. (See option #6 in "System Option Programming" on page 138 to enable post tendering.) The second cash entry is compared to the sale total and the difference is displayed. (The CLEAR key must first be pressed for registers programmed with pop-up clerks.)




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 T1                     $6.00
TAX1                        $0.30
TOTAL                       $6.30
CASH                        $6.30
CLERK 1          000001     00001
```

Post Tender

Integrated Payment Operations

See the “Integrated Payment Appendix” on page 217 for credit card payment operation information.

Training Mode

A training mode is available so that you can operate the cash register without updating totals and counters. Note the following conditions:

- The receipt and journal print the message "TRAINING MODE BEGIN" when training mode is activated. (See option #13 in “Print Option Programming” on page 146.)
- The receipt and journal print the message "TRAINING MODE END" when training mode is exited.
- The message "TRAINING MODE" prints on each receipt printed while training mode is active.
- The total and counter on the financial report labeled "TRAIN TTL" is updated with the net amount of each training transaction.

To Enter Training Mode

- Set system option #23 to a value of **1**. See “Programming a System Option” on page 138.

To Exit Training Mode

- Set system option #23 to a value of **0**. See “Programming a System Option” on page 138.

Clerk Interrupt

Clerk interrupt allows you to temporarily suspend a transaction in progress by allowing a new clerk to sign on and register a new transaction. After the new transaction is complete, the original clerk can sign on, the suspended transaction is recalled and may be completed.

You must select either check (table) tracking or clerk interrupt. You cannot use clerk interrupt with a check tracking system.

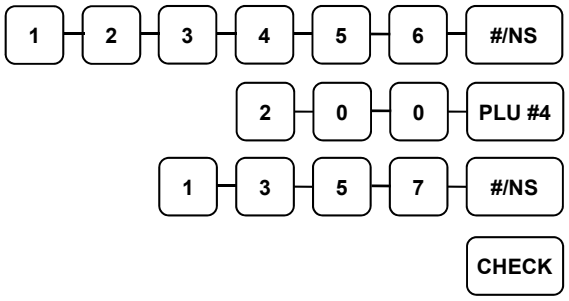
To Enable Clerk Interrupt

1. Program Clerk Secret Code
2. Set system option #2 to a value of **1**. See “Programming a System Option” on page 138.
3. Set system option #26 to a value of **1**. See “Programming a System Option” on page 138.

Non-Add Number

With the #/NS key, you can enter a memo number at any time and print the number on the receipt, journal, or validation. The non-adding number is not added to the sale, nor is it added to any register total, exempt the # key total itself. You can enter a number up of up to 9 digits. For example:

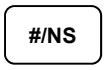
- Enter a number prior to a PLU entry to print a record of the item's SKU number.
- Enter a number prior to a Check tender to print a record of the check number.
- Enter a number prior to a Charge to print a record of the charge account number.




```
DATE 06/14/2011 SUN   TIME 13:15

NON-ADD#                   123456
PLU4 T1                     $2.00
TAX1                        $0.10
TOTAL                       $2.10
NON-ADD#                    1357
CHECK                       $2.10
CLERK 1          000001     00001
```

#/No Sale

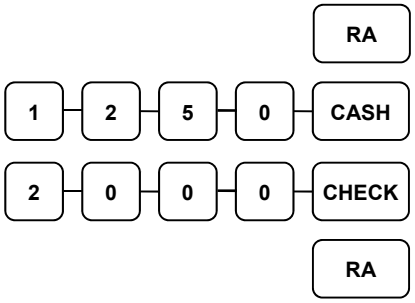
Outside of a transaction you can press the #/NS key to open the cash drawer. The number of no sales are counted and reported on the financial report. The no sale function can also be placed under management control, requiring the control key to be in the X position.




```
DATE 06/14/2011 SUN   TIME 13:15

NOSALE ------------------------
CLERK 1          000001     00001
```

Received on Account

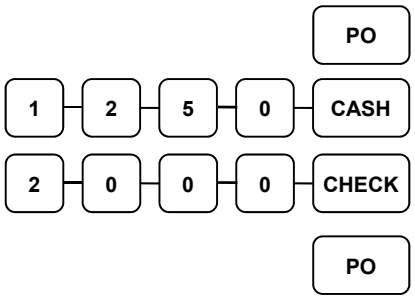
Use the RECD ACCT key to record payments or loans to the cash drawer. You can enter more than one type of payment to the drawer. The Received on Account function can only be used outside of a transaction.




```
DATE 06/14/2011 SUN   TIME 03:15

RA1
CASH                        $12.50
CHECK                       $20.00
RA1                         $32.50
CLERK 1        00001         00000
```

Paid Out

Use the PAID OUT key to record payments or loans from the cash drawer. You can enter more than one type of payment to the drawer. The Paid Out function can only be used outside of a transaction.




```
DATE 06/14/2011 SUN   TIME 03:15

PO1
CASH                        $12.50
CHECK                       $20.00
P/O                         $32.50
CLERK 1        00001         00000
```

Table Service Restaurant Operations

Overview

The *SAM4s ER-900* can be used to add items or receive payments on guest checks using a manual previous balance, hard check, or soft check system. (Note that you must select hard or soft check posting in memory allocation programming. The default selection is soft.)

- If manual previous balance is selected, the check balance is not saved in memory and is input manually by the operator (use the **PBAL** key).
- If a hard check system is selected, only the previous balance is maintained in memory.
- If a soft check system is selected, the check detail is kept in memory until the check is paid. (The maximum size of the soft check is set in memory allocation programming.) When a soft check system is used, the receipt can be used to print the final check that is presented to the customer for payment.

Consolidation of like items can be selected for guest check printing. For example, if three rounds of drinks are served, the check will print:

"**3 TAP BEER**" rather than
"**1 TAP BEER**" three times. (See "Print Option Programming" on page 146.)

Note: If you wish to print guest check transactions on a slip or a pre-printed guest check, an optional printer must be installed. See your *SAM4s* dealer for more information.

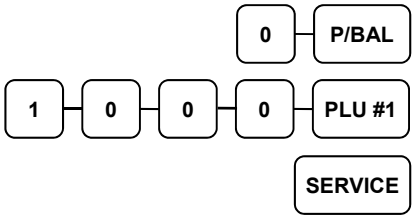
Function Keys and Options

Functions necessary for restaurant operations may not appear on the default keyboard. Any or all of the following functions can be located on the keyboard. See "Function Key Assignment Programming" on page 101 if it is necessary to locate these keys on your keyboard.

CHECK #	The **CHECK #** key is used to begin a new or access an existing balance (hard check) or itemized bill (soft check.) Existing checks are accessed by entering the check track number and pressing the **CHECK#** key. The Check # key may be set with the following options: • A check must be started before items may be entered. • The clerk that opens the check has exclusive access. • Only one check may be allowed per table. • The check # may be automatically assigned by the register. • Check track numbers that are entered manually may be set at a fixed length of one to nine digits. Check track numbers assigned automatically will begin with #1. In a drive thru system, simply pressing the **PBAL** key will recall the oldest open balance (lowest check track #).
GUEST	Use to enter the count of guests served as part of a guest check. The entry of a guest count can be enforced when opening a guest check, or for all transactions.
P/BAL	Use to enter the amount of an outstanding balance. The **P/BAL** key will take the recall function if the *drive thru* feature is enabled in **CHECK #** key programming.
SERVICE	Use to temporarily finalize Previous Balance or check tracking transactions. (If you are using a hard check system, you must program the **SERVICE** key for the port where the slip printer is connected.)
TABLE	You can enforce the entry of a table number for guest check transactions, or for all transactions. If you are tracking guest check balances, the balance can be recalled either by entering the check number or the table number.
PRINT CHECK	Use to print a soft check. The check can be printed on an optional (RS-232C) printer or can be printed on the receipt printer. The **PRINT CHECK** key can be set to automatically service the check.
TIP	The **TIP** key allows a gratuity to be added to a guest check before payment. (The TIP key is only used in guest check operations.) The **TIP** key may be programmed as either a percentage or amount. If programmed as a percentage, tax programming defines whether the percentage is calculated on the net (taxable = no) amount, or the amount after taxes.

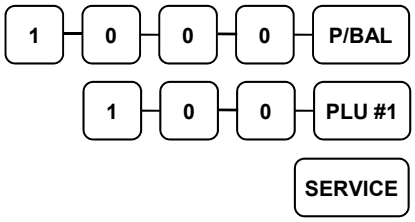
Posting Guest Checks Manually with the Previous Balance Key

The previous balance key is used to enter the amount of the previous balance before adding new items or making payments.



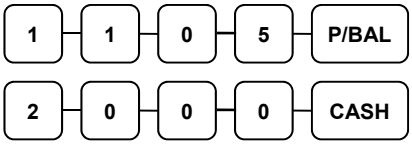

```
DATE 06/14/2011 SUN   TIME 03:15

PBAL                        $0.00
PLU4                       $10.00
SERVICE                    $10.00
BFWD                       $10.00
CLERK 1          000001     00001
```

Starting a Check




```
DATE 06/14/2011 SUN   TIME 03:15

PBAL                       $10.00
PLU1 T1                     $1.00
TAX1                        $0.05
SERVICE                     $1.05
BFWD                       $11.05
CLERK 1          000001     00001
```

Adding to an Existing Check



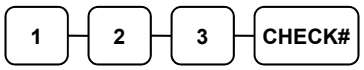

```
DATE 06/14/2011 SUN   TIME 03:15

PBAL                       $11.05
CHECKS PAID                $11.05
TOTAL                      $11.05
CASH                       $20.00
CHANGE                      $8.95
CLERK 1          000001     00001
```

Paying a Check

Soft Check

Opening a Soft Check

1. Enter the number of the guest check, press the **CHECK #** key:

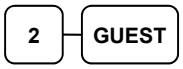
   or, press the **CHECK #** key to automatically assign a check #:

2. If required, enter the table number and press the **TABLE** key:

3. If required, enter the number of guests and press the **GUEST** key:

4. Register the items you wish to sell.
5. To total the posting, press **SERVICE**:

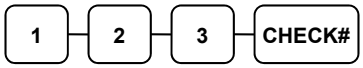
Receipt Example:

```
DATE 08/15/2011 SUN   TIME 08:33

CHECK #                 #123
PBAL                      $0.00
TABLE                        #3
GUEST                        #2
LIQUOR T1                 $7.00
STEAK T2                 $10.00
TAX1                      $0.35
TAX2                      $1.00
SERVICE                  $18.35
BFWD               $18.35
CLERK 1            000011   00001
```

Note: If a table number entry is required for all guest checks, and checks are assigned by register, the check will be assigned by the register when the table # is entered.

Adding to a Soft Check

1. Enter the number of the guest check, press the **CHECK #** key:

   or, if you entered a table number, enter the table number and press the **TABLE** key:

2. Register the next items you wish to sell.
3. To total the posting, press **SERVICE**:

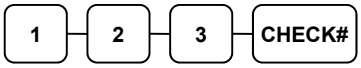
Receipt Example:

```
DATE 08/15/2011 SUN   TIME 08:33

CHECK #                 #123
PBAL                      $18.19
TABLE                        #3
GARLIC BREAD T2           $2.00
TAX1                      $0.35
TAX2                      $1.20
SERVICE                   $2.20
BFWD              $20.55
CLERK 1           000012   00001
```

NOTE: Taxes are recalculated and printed to reflect total taxes for all items posted on the check.

Printing a Soft Check

1. Enter the number of the guest check, press the **CHECK #** key:

   or, if you entered a table number, enter the table number and press the **TABLE** key:

2. Press **PRINT CHECK** to print the complete check. If programmed to do so, the **PRINT CHECK** key will automatically service the check:

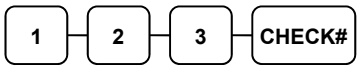
Sample of soft check printed on the receipt:

```
DATE 08/15/2011 SUN   TIME 08:33

CHECK #                 #123
LIQUOR T1                 $7.00
STEAK T2                 $10.00
GARLIC BREAD T2           $2.00
TAX1                      $0.46
TAX2                      $0.87
SERVICE                   $0.00
BFWD              $20.33
                        CHK # : 1
CLERK 1           000012   00001
```

The number of times each check has been printed is counted and printed on the check

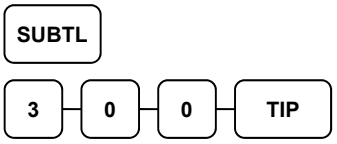
Paying a Soft Check

1. Enter the number of the guest check, press the **CHECK #** key:

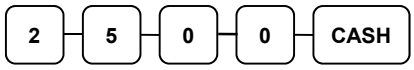


   or, if you entered a table number, enter the table number and press the **TABLE** key:

2. If necessary, add additional items. If you wish to add a tip, press **SUBTL**, then enter the tip amount and press the **TIP** key:



3. Pay the balance, as you would normally tender a transaction, with **CASH**, **CHEC**K, or one of the **CHARGE** functions. If the tender is greater than the balance due, change is displayed.



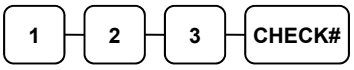
Sample of soft check printed on the receipt:

```
DATE 08/15/2011 SUN   TIME 08:33

CHECK #                  #123
LIQUOR T1                 $7.00
STEAK T2                 $10.00
GARLIC BREAD T2           $2.00
TIP                       $3.00
TAX1                      $0.46
TAX2                      $0.87
CHECKS PAID              $23.33
TOTAL                    $23.33
CASH                     $25.00
CHANGE                    $1.67
                      CHK # : 2
CLERK 1          000013   00001
```

Hard Check

Opening a Hard Check

1. Enter the number of the guest check, press the **CHECK #** key:

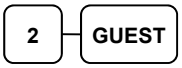
   or, press the **CHECK #** key to automatically assign a check:

2. If required, enter the table number and press the **TABLE** key:

3. If required, enter the number of guests and press the **GUEST** key:

4. Register the items you wish to sell.
5. Place a slip in an optional slip printer, the check will print automatically when you press **SERVICE**:

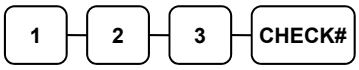
   

Receipt Example:

```
            THANK-YOU
            CALL AGAIN

DATE 08/15/2011 SUN   TIME 08:33

CHECK #                  #123
PBAL                      $0.00
TABLE                        #3
GUEST                        #2
LIQUOR T1                 $7.00
STEAK T2                 $10.00
TAX1                      $0.46
TAX2                      $0.73
SERVICE                  $18.19
BFWD               $18.19
CLERK 1            000011   00001
```

Adding to a Hard Check

1. Enter the number of the guest check, press the **CHECK #** key:

   or, if you entered a table number, enter the table number and press the **TABLE** key:

2. Register the next items you wish to sell.
3. Place a slip in an optional slip printer, the check will print automatically when you press **SERVICE**:

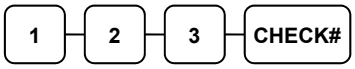
   

Receipt Example:

```
DATE 08/15/2011 SUN   TIME 08:33

CHECK #                  #123
PBAL                      $18.19
TABLE                        #3
GARLIC BREAD T2           $2.00
TAX1                      $0.46
TAX2                      $0.87
SERVICE                   $2.15
BFWD                $20.33
CLERK 1             000012   00001
```

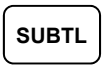
Paying a Hard Check

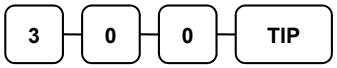
1. Enter the number of the guest check, press the **CHECK #** key:



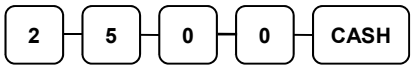
   or, if you entered a table number, enter the table number and press the **TABLE** key:

2. If necessary, add additional items. If you wish to add a tip, press **SUBTL**, then enter the tip amount and press the **TIP** key:





3. Pay the balance, as you would normally tender a transaction, with **CASH**, **CHECK**, or one of the **CHARGE** functions. If the tender is greater than the balance due, change is displayed.



Sample of Hard Check postings printed on an optional printer:

```
DATE            12/01/2011              WED
     CHECK #                          #123
     PBAL                             $0.00
     LIQUOR T1                        $7.00
     STEAK T2                         $10.00
     TAX1                             $0.46
     TAX2                             $0.73
     SERVICE                          $18.19
     BFWD                             18.19
No.000017 REG 01 KELLY          TIME 09:15
     PBAL                             $18.19
     GARLIC BREAD T2                  $2.00
     TAX1                             $0.46
     TAX2                             $0.87
     SERVICE                          $2.15
     BFWD                             20.33
No.000019 REG 01 KELLY          TIME 09:47
     PBAL                             $20.33
     TIP                              $3.00
     TAX1                             $0.46
     TAX2                             $0.87
     CHECKS PAID                      $23.33
     CASH                             $25.00
     CHANGE                           $1.67


No.000021 REG 01 KELLY          TIME 10:16
```

Fast Food Drive Thru

For fast food drive thru windows, the *ER-900* has the capability of storing orders when they are taken, and then recalling the next order automatically at the payment window.

- The PBAL function becomes a recall function when the drive thru feature is enabled in the CHECK # function key program. Press the PBAL key to recall the lowest tracking number balance. Refer to "CHECK # - Function Key Options" on page 163.
- Orders are stored by first pressing the CHECK # key to automatically assign the next tracking number, then pressing SERVICE. A macro sequence key could be created to execute both functions sequentially. For MACRO programming, see "Program 1500 – Macro Key Sequence Programming" on page 191.

Taking a Drive Thru Order

1. Register the items you wish to sell.
2. Press the **CHECK #** key to begin an automatically assigned check:

3. To store the posting, press **SERVICE**:

Receipt Example:

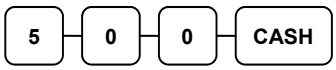
```
DATE 08/15/2011 SUN   TIME 08:33

HAMBURGER                  $2.00
FRIES                      $1.00
CHECK #                     #3
PBAL                       $0.00
SERVICE                    $3.00
BFWD                 $3.00
CLERK 1          000011    00001
```

Paying a Drive Thru Order

1. Press the **PBAL** key:

2. If necessary, add additional items, register discounts or coupons.
3. Pay the balance, as you would normally tender a transaction, with **CASH**, **CHECK**, or one of the **CHARGE** functions. If the tender is greater than the balance due, change is displayed.

Receipt Example:

```
DATE 08/15/2011 SUN   TIME 08:33

CHECK #                     #3
PBAL                       $3.00
CHECKS PAID                $3.00
TOTAL                      $3.00
CASH                       $5.00
CHANGE                     $2.00
CLERK 1          000012    00001
```

Charge Posting Operations

The ER-900 check tracking system can be used to post charges and payments to house accounts. This posting system is ideal for small resorts, campgrounds, motels/hotels or retail stores that accept house charges.

Charge posting features include:

- Manual balance posting, soft check posting, or hard check posting. For house account posting, the hard check posting method with an optional slip printer is recommended. (Because house accounts are usually maintained over a period of time, the soft check system may not have the memory capacity to track the ongoing account activity.)
- Payments can be posted before charges are posted and credit balances can be carried forward.
- Overpayments can be issued as change or carried forward.
- Managers can control access to new account numbers or closing accounts.
- Zero balance accounts can remain active.
- The total of outstanding accounts prints at the end of the open check report and also on the Financial report. (The total is not reset when the financial report is cleared.)
- The total of house account charges (Service Total) and payments are reported to facilitate accounts receivable balancing.

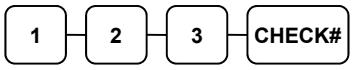
In order to implement this system, you must enable the charge posting features (see "System Option Programming" on page 138".) You must also assign the necessary function keys for your application.

Charge Posting Function Keys

CHECK # (ACCT #)	The **CHECK #** key is used to begin a new or access an existing balance (hard check) or itemized bill (soft check.) Existing checks are accessed by entering the check track number and pressing the **CHECK#** key. You may wish to reprogram the descriptor of the **CHECK #** key to **ACCT#**.
P/BAL	Use to manually enter the amount of an outstanding balance. The **P/BAL** key is not used when hard or soft check posting is used.
SERVICE (HOUSE CHRG)	Use to temporarily finalize Previous Balance or house account transactions. (If you are using a hard check system, you must program the **SERVICE** key for the port where the slip printer is connected.) You may wish to reprogram the descriptor of the **SERVICE** key to **HOUSE CHRG**.
PAYMENT	Press to make a payment, partial payment, or pre-payment while posting to a check (account). If the payment amount exceeds the check balance, a credit balance will be maintained.
PAY TEND	The **PAY TEND** key functions like the **PAYMENT** key, exempt if the payment amount exceeds the check balance, the overpayment will be issued as change and the account balance will be zeroed.
PRINT CHECK	Use to print a soft check. The check can be printed on an optional (RS-232C) printer or can be printed on the receipt printer. The **PRINT CHECK** key can be set to automatically service the check.
FINALIZE	Pressing the **FINALIZE** key before closing a check will close the account and the account number will no longer be reported on the open check report.

Opening an Account

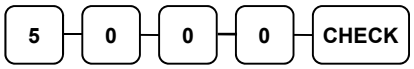
1. Enter the number of the account and press the **CHECK #** key. You may be required to turn the key lock to the MGR position.



Accepting an Advance Payment

2. Press the **PAYMENT** key.

3. Enter the amount of the payment and press the appropriate tender key; **CASH**, **CHECK** or **CHARGE**.



4. Press the **SERVICE** key to complete the operation and store the balance.

Posting New Charges

5. Enter the number of the account and press the **CHECK #** key.
6. Enter items purchased.
7. Press the **SERVICE** key to complete the operation and store the balance.

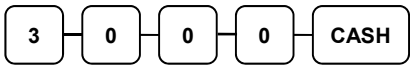
Sample of Hard Check postings printed on an optional slip printer:

```
DATE            12/01/2011          WED
     CHECK #                        #123
     PBAL                           $0.00
     PAYMENT                        $50.00
     CHECK                          $50.00
     SERVICE                        $0.00
     BFWD                        -50.00
No.000017 REG 01 KELLY         TIME
09:15
DATE             12/01/2011
WED
     PBAL                           $50.00
     ROOM                           $75.00
     SERVICE                        $75.00
     BFWD                        25.00
No.000019 REG 01 KELLY         TIME
09:47
DATE             12/01/2011
WED
     PBAL                           $25.00
     CHANGE                          $5.00
     TENDER                         $30.00
     CASH                           $25.00
     SERVICE                         $0.00
     BFWD                        $0.00
No.000021 REG 01 KELLY         TIME 10:16
```

Accepting an Overpayment and Issuing Change

8. Enter the number of the account and press the **CHECK #** key.
9. Press the **PAY TEND** key.

10. Enter the amount of the payment and press the appropriate tender key; **CASH, CHECK** or **CHARGE**.



11. Press the **SERVICE** key to complete the operation and store the balance.

Closing a Charge Posting Account.

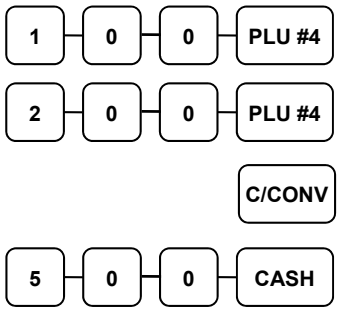
12. Enter the number of the account and press the **CHECK #** key.
13. Press the **FINALIZE** key

14. Press the appropriate tender key; **CASH, CHECK** or **CHARGE**.

Currency Conversion

If you normally accept currency from a neighboring nation, you can program the *SAM4s ER-900* to convert the subtotal of a sale to the equivalent cost in the foreign currency. Four foreign currency conversion keys are available. See "Function Key Assignment Programming" on page 101 to place currency conversion keys on the keyboard. You also need to program the conversion factor. For example, if the US dollar (home currency) is worth 1.3720 Canadian dollars (foreign currency), the conversion factor is 1.3720. See “Instructions for Currency Conversion Rate – Program 90” on page 157 to set a conversion rate.

Note: The change due is computed in home currency!




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1                          $1.00
PLU4                          $2.00
TOTAL                         $3.00
CONV1                         @5.00
CHANGE RATE                 #1.3720
HOME AMT                      $3.64
CHANGE                        $0.64
CLERK 1           000001      00001
```

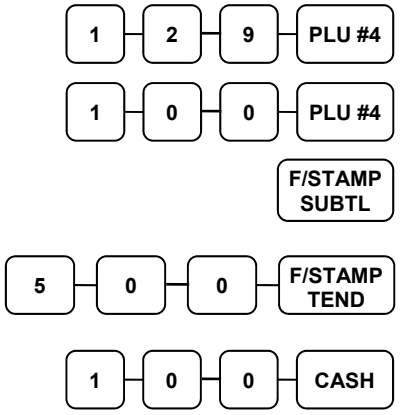
Currency Conversion Transaction

Food Stamp Operations

The *SAM4s ER-900* can be set up to sort food stamp eligible merchandise and accept food stamp payments. See "Function Key Assignment Programming" on page 101 to place the necessary function keys (F/S SHIFT, F/S SUB, F/S TEND) on the keyboard. You will also need to set food stamp eligibility status for each open or preset PLU (see "Program 100 – PLU Status Programming" on page 125.)

Note: All food stamp payments are now made through EBT payments. Beginning at software version 1.030, the ER-900 Series is capable of accepting EBT electronic payments.

- If necessary, you can use the F/S SHIFT key to shift the pre-programmed eligibility status for any item as it is entered. For example, while produce is normally food stamp eligible, certain produce department items, such as birdseed, cannot be paid for with food stamps. In this case, program the produce PLU as food stamp eligible, then press F/S SHIFT before registering a non-eligible produce item.
- If a customer chooses to pay with food stamps (EBT), press the F/S SUB key to display a total of food stamp eligible merchandise.
- Tender food stamp payments into the F/S TEND key. Since all food stamp payments are now made by EBT, always tender the exact amount.




```
DATE 06/14/2011 SUN   TIME 03:15

PLU1 F                      $1.29
PLU4                        $1.00
TOTAL                       $2.29
F/S TOTAL                   $1.29
F/D TEND                     5.00
F/S CRT AMT                 $0.71
TOTAL                       $0.29
CASH                        $1.00
CHANGE                      $0.71
FD/S CHANGE                 $3.00
CLERK 1          000001     00001
```

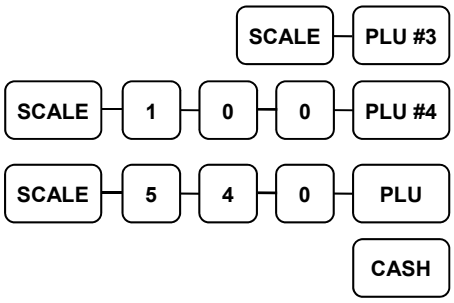
Food Stamp Payment Transaction

Scale Operations

The *SAM4s ER-900* can be interfaced to an optional load-cell scale, allowing direct entry of an item's weight by using the SCALE key. If you attempt an entry into a PLU that has been programmed to require scale entry (see "Program 100 – PLU Status Programming" on page 125) an error tone will sound and you will be prompted to make a scale entry.

Direct Scale Entry

Place a product on the scale and press the **SCALE** key to display the weight on the cash register. Then make the appropriate **PLU** entry.




```
DATE 06/14/2011 SUN   TIME 03:15

1.50 lb     @ 3.00
PLU3 T12                   $4.50
1.75 lb     @ 1.00
PLU 4                      $1.75
1.25 lb     @ 2.50
PLU540                     $3.13
TAX1                       $0.23
TAX2                       $0.45
TOTAL                     $10.06
CASH                      $10.06
CLERK 1          000001   00001
```

Preset Keyboard PLU

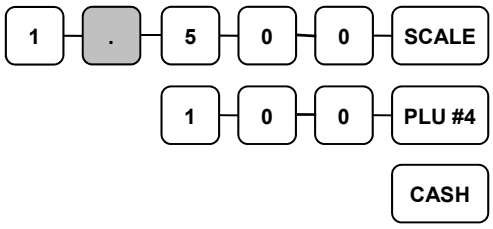
Open Keyboard PLU

Preset PLU

Manual Weight Entry

NOTE: Manual weight entry can be used only when a scale is not interfaced.

Operators can make manual weight entries if the item has been programmed to accept them (see "Program 100 – PLU Status Programming" on page 125). You must use the decimal key to enter fractional manual weights.

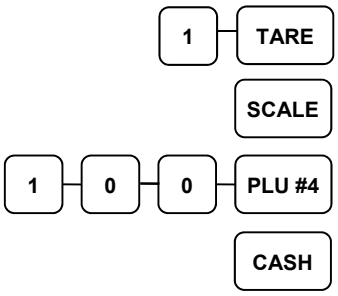



```
DATE 06/14/2011 SUN     TIME 03:15

1.50 lb     @ 1.00
PLU4                       $1.50
TOTAL                      $1.50
CASH                       $1.50
CLERK 1          000001   00001
```

Manual Scale Entry

Scale with Automatic Tare Entry

Place a product on the scale, enter the preprogrammed tare number and press the TARE key and then the SCALE key. The weight, less the tare, will appear on the cash register display. Then make the appropriate PLU entry.



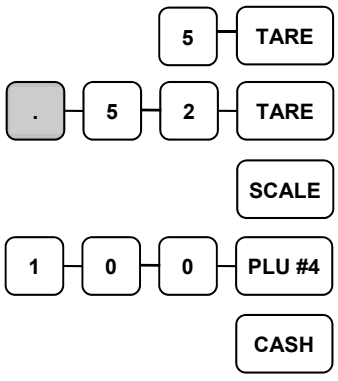

```
DATE 06/14/2011 SUN   TIME 03:15

1.50 lb     @ 1.00
PLU4                          $1.50
TOTAL                         $1.50
CASH                          $1.50
CLERK 1          000001   00001
```

Automatic Tare Entry

Scale with Manual Tare Entry

Tare #5 can be used to manually enter tare weights.

1. Place a product on the scale, enter **5** and press the **TARE** key.
2. Enter the **TARE WEIGHT** (using the decimal key- you can enter weights up to 2-digits before and 3-digits after the decimal i.e. xx.xxx), press the **TARE** key and then the **SCALE** key. The tare weight will display.
3. Press the **SCALE** key again, and the weight, less the tare will display.
4. Then make the appropriate **PLU** entry.




```
DATE 06/14/2011 SUN   TIME 03:15

1.50 lb     @ 1.00
PLU4                          $1.50
TOTAL                         $1.50
CASH                          $1.50
CLERK 1          000001   00001
```

Manual Tare Entry

Validation

Validation is possible if an optional slip printer is connected to one of the available RS-232C ports. Use VALIDATION key (key code #441) to print a three-line validation on a separate form or piece of paper. Any item registration, discount or payment may be validated. Validation can be done after virtually any operation, and validation can be set to be compulsory after selected functions, including:

- Add Check
- Cash
- Charge
- Check
- Check cash
- Drive-Thru/Eat-In/Take-Out
- Error Correct
- Food Stamp Tender
- Merchandise Return
- Paid Out
- Received on Account
- Service
- Tax Exempt
- Waste
- % Key Functions

Validation Notes:

See “Function Key Programming” to set compulsory validation.

When validating a payment, system option #20 determines whether the sale amount or tender amount is validated.

When validating a void or correction, the validation prints an abbreviation to identify the type of void. The key below defines the type of correction:

- VD = Error Correct
- VD2 = Void Key
- VD3 = Void Mode
- VD4 = Cancel

Not Found PLU

The "Not Found PLU" feature is available for use when an optional scanner is used to input PLUs. If an item is scanned that is not programmed in the PLU file, the operator has the option to input the price of the item and assign it the same descriptor and properties of another PLU, or enter the descriptor and tax status independently. This provides a simple mechanism for building an item file for a low-cost scanning installation. (Note: Beginning at version 1.036, the error sound continually when a not found PLU is attempted.)

Not Found PLU: Quick Entry

Action	Display	Notes
Scan or input **PLU**	NOT FOUND PLU	Error sounds continually
Press **CLEAR**	NOT FOUND PLU STOP:0 SAVE:1	
Press **1**	INPUT PRICE PRESS X/TIME key	
Enter the item price; press **X/TIME**	SELECT COPY PLU	
Touch a **PLU** on Keyboard (or enter **PLU #** and Press the **PLU** function key)	The item is registered and displayed	The item is added to the PLU file with the price as entered and the descriptor and options of the PLU that was entered as the COPY PLU.

Not Found PLU: Detail Entry

Action	Display	Notes
Scan or input **PLU**	NOT FOUND PLU	Error sounds continually
Press **CLEAR**	NOT FOUND PLU STOP:0 SAVE:1	
Press **1**	INPUT PRICE PRESS X/TIME key	
Enter the item price; press **X/TIME**	SELECT COPY PLU	
Enter **0**; press **PLU**	DESC	
Enter the item descriptor: press **X/TIME**.	TAXABLE	You must enter descriptor by descriptor code. (If using Quick Entry, you can enter descriptors later using the PC Utility.)
Enter the tax status (from digits N1 & N2 of the PLU Status Program) press **X/TIME**.	The item is registered and displayed	For example, enter 40 for taxable by tax rate 1. Note that the item is assigned by default to PLU Group 1.

Not Found PLU Report

Turn the key lock to **X** or **Z**: enter **1 5** and press **SUBTOTAL**. Note: Up to 50 not found PLU items can be retained. When capacity is reached, you must clear (Z) the Not Found PLU report.

Price Change Function Key

The operator can use this function to permanently change the price of an item during a sale. Alternatively, the key can be programmed to allow a temporary price over-ride, but not change the price permanently. An option to display a prompt to change the price is also available and the key can be set to operate only in the X control lock position (manager control.)

Note: The Price Change function key was added at software version 1.053 or later.

1. Press the **PRICE CHANGE** key:

   PRICE CHANGE

2. Enter the PLU number of the item you wish to change and press the PLU key:

   1 → 4 → 7 → PLU

Or,

Press a keyboard PLU:

PLU #3

3. Enter the new price and press the **PRICE CHANGE** key again.

   2 → 9 → 9 → PRICE CHANGE

The item is registered with the new price.

```
DATE 06/14/2011 SUN  TIME 08:37

PLU1 T1                    $2.99
TAX1                       $0.15
TOTAL                      $3.14
CASH                       $3.14
CLERK 1     000001         00001
```

PRICE CHANGE Entry

Management Functions

Introduction

All Management Functions take place with the control lock in the X position. In this way, only those with the correct key will have access to these functions.

Some register operations may be programmed to require the control lock in the X position (Manager Control) in order to operate.

All reports require a key that will access the X or Z position.

- X report read and print the report but do not reset the totals and counters within the report.
- Z reports print and reset the reports totals and counters.

Cash Declaration

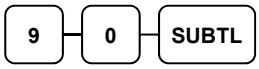
If compulsory cash declaration is required, you must declare the count of the cash drawer prior to taking X or Z financial and clerk reports.

You can enter the cash drawer total in one step, or to facilitate the counting of the cash drawer, you can enter each type of bill/coin and checks separately and let the register act as an adding machine. You can also use the X/TIME key to multiply the denomination of currency times your count.

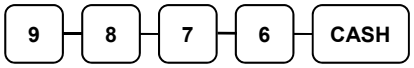
Either way you choose to enter cash, the register will compare your declaration with the expected cash and check in drawer totals and print the over or short amounts on the report.

For example:

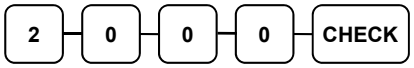
1. Turn the control lock to the **X** or **Z** position (depending upon the type of report you are taking.)
2. Enter **90** and press the **SUBTL** key.

3. Enter the total of cash; Press **CASH**.

4. Enter the total of checks; Press **CHECK**.

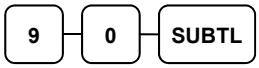
5. Press the **CASH** key to total the declaration.

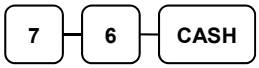

```
DATE 06/14/2011 SUN   TIME 03:15

***     CASH DECLARATION     ***
CASH                       $98.76
CHECK                      $20.00
INPUT AMT                 $118.76
DRAWER TTL                 $23.53
DIFFERENCE                 -95.23

CLERK 1        00001       00000
```

Alternately, you can enter each denomination separately:

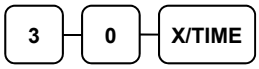
1. Turn the control lock to the **X** or **Z** position (depending upon the type of report you are taking.)
2. Enter 90 and press the SUBTL key.

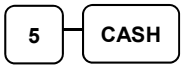
   

3. Enter the total of pennies; Press **CASH**.

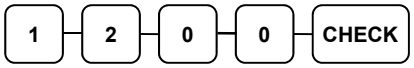
   

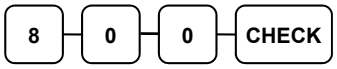
4. Enter remaining currency denominations in the same manner; follow each denomination entry by pressing **CASH**.
5. If you wish you can multiply the count times the denomination. For example, if you have 30 nickels enter:

6. Enter the remaining cash separately by denomination.
7. Enter each check:

8. Press the **CASH** key to total the declaration.


```
DATE 06/14/2011 SUN   TIME 03:15

***     CASH DECLARATION     ***
CASH                        $0.76
CASH                        $1.50
CHECK                      $12.00
CHECK                       $8.00
INPUT AMT                  $22.26
DRAWER TTL                 $23.53
DIFFERENCE                  -1.27

CLERK 1       00001        00000
```

System Reports

System reports are divided into two basic categories:

- X reports, which read totals without resetting
- Z reports, which read totals and reset them to zero

Most reports are available in both categories. Some reports, such as the Cash-in-Drawer report and the From-To PLU report are available only as X reports.

Some reports also provide identical but separate *period to date* reports. These reports maintain a separate set of totals which may be allowed to accumulate over a period of days, weeks, months, or even years. X2 reports read period to date totals without resetting, and Z2 reports read period to date totals and reset them to zero. Period to date totals are updated each time a Z1 report is completed.

A complete list of available reports is presented in a chart on the following page.

See “Sample Reports” on page 207 for an example of each report.

Registers programmed with pop-up clerks must be signed on in the REG control lock position prior to taking reports.

Running a Report – General Instructions

1. Refer to the “Report Table” on the following page.
2. Select a report type and the report mode.
3. Turn the control lock to the position indicated.
4. Enter the key sequence for the report you have selected.

Report Table

Report Type	Report Number	Report Mode	Control Lock Position	Key Sequence
Financial	1	X	X	**1 – SUBTL**
		Z	Z	**1 – SUBTL**
		X2	X	**201 – SUBTL**
		Z2	Z	**201 – SUBTL**
Time	2	X	X	**2 – SUBTL**
		Z	Z	**2 – SUBTL**
		X2	X	**202 – SUBTL**
		Z2	Z	**202 – SUBTL**
All PLU	3	X	X	**3 – SUBTL**
		Z	Z	**3 – SUBTL**
		X2	X	**203 – SUBTL**
		Z2	Z	**203 – SUBTL**
All Clerk	4	X	X	**4 – SUBTL**
		Z	Z	**4 – SUBTL**
		X2	X	**204 – SUBTL**
		Z2	Z	**204 – SUBTL**
Group	5	X	X	**5 – SUBTL**
		Z	Z	**5 – SUBTL**
		X2	X	**205 – SUBTL**
		Z2	Z	**205 – SUBTL**
All STOCK	6	X	X	**6 – SUBTL**
		Z	Z	**6 – SUBTL**
Daily Sales	8	X2	X	**208 – SUBTL**
		Z2	Z	**208 – SUBTL**
Individual Clerk Report	9	X	X	**9 – SUBTL - # - CLERK - # - CLERK**
		X2	X	**209 – SUBTL - # - CLERK - # - CLERK**
Open Table/Check	11	X	X	**11 – SUBTL**
		Z	Z	**11 – SUBTL**
From/To PLU	13	X	X	**13-SUBTL XXXX – PLU – XXXX – PLU**
		X2	X	**213-SUBTL XXXX – PLU – XXXX – PLU**
From/To STOCK	14	X	X	**14-SUBTL XXXX –PLU – XXXX – PLU**
Not Found PLU Report	15	X	X	**15 - SUBTL**
		Z	Z	**15 - SUBTL**
DRAWER TOTAL	111	X	X	**111-SUBTL**
Clear SD EMV File	523	Z	Z	**523 - SUBTL**

Electronic Journal Reports

Report Type	Report Number	Report Mode	Control Lock Position	Key Sequence
PRINT ALL EJ	300	X	X	300 -SUBTL
PRINT EJ CASH	301	X	X	301 -SUBTL
PRINT EJ CHECK	302	X	X	302 -SUBTL
PRINT EJ CHARGE	303	X	X	303 -SUBTL
PRINT EJ %	304	X	X	304 -SUBTL
PRINT EJ RA/PO	305	X	X	305 -SUBTL
PRINT EJ RETURN	306	X	X	306 -SUBTL
PRINT EJ EC/VOID	307	X	X	307 -SUBTL
PRINT EJ NO SALE	308	X	X	308 -SUBTL
PRINT EJ CANCEL	309	X	X	309 –SUBTL
PRINT EJ BY CLERK	401 – 15	X	X/Z	401-415 SUBTL (depends on Max Clerk)-SUBTL
EJ RESET	399	Z	Z	399- SUBTL

Note: ***Quick Journal Review*** is available if set in Print Option Programming (see option #37). In the REG key lock position (outside of a transaction) enter 1 0 and press the SUBTL key. Recent journal entries are printed (option #37 sets the number of lines to be printed). This allows the operator, or manager to quickly check the details of the previous transaction or transactions without running the EJ report.

S-Mode Programming

Overview

A separate key, marked “C” will access the hidden S key lock position *(Service Mode)*; one position clockwise from the PGM key lock position.

Caution: For information security, distribute the “C” key only to owners or managers who will need to use these procedures.

The following secure procedures are performed in the S-Mode.

- Self-Tests
- Clearing Memory
- EPROM Information
- Memory Allocation
- Function Key Assignment Programming
- Updating Firmware Program
- SD Card Utilities
- Load/Save Receipt Images

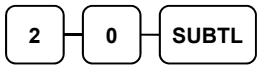
Clearing Memory

Memory All Clear

Before you use your ER-900 for the first time, before the customer's program is entered. Perform a memory all clear to insure all previous programming, totals and counters are cleared and that the default program is installed. Go to "Clearing Memory" on page 26 to complete the procedure.

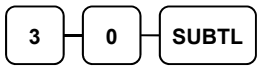
Clear All Totals and Counters

1. Turn the control lock to the **S** position.
2. Enter **20** and press the **SUBTL** key.



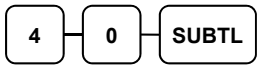
Clear Grand Total

1. Turn the control lock to the **S** position.
2. Enter **30** and press the **SUBTL** key.



Clear PLU File

1. Turn the control lock to the **S** position.
2. Enter **40** and press the **SUBTL** key. A confirmation dialog will ask "ARE YOU SURE ?". Press **CASH** to continue or **CLEAR** to abort the process.



Self-Tests

Self-tests can be performed to check the functions of the register.

1. Turn the control lock to the **S** position.
2. Enter the test number from the chart below and press the **SUBTL** key.

Self-Test Operations

Test	Key Sequence	Results/Instructions
Printer	**10 SUBTL**	The receipt printer generates a printer test pattern and the drawer will open at the end of the test.
Display	**11 SUBTL**	Displays illuminate a test pattern.
Keyboard	**12 SUBTL**	Press any key. The key's current function is displayed. Turn the key lock to end the test.
Mode Lock	**13 SUBTL**	Turn the mode lock to display the lock position. Return the key to S to end the test.
RS232C Port 1 RS232C Port 2 RS232C Port 3 RS232C Port 4	**14 SUBTL** **24 SUBTL** **34 SUBTL** **44 SUBTL**	Loop back connector must be connected. Displays "232 Port Good" if successful; displays "232 Port No Good" and sounds an error if unsuccessful (or if loop back is not connected).
Endless Printing	**16 SUBTL**	The receipt prints a sample ticket and opens the cash drawer. The print is repeated until the key lock is turned.
MCR Test	**17 SUBTL**	Swipe a card. The printer prints card track data.
SD Card	**19 SUBTL**	Insert a SD card. Checks SD card operation.

Memory Allocation

Memory Capacity

4MB for models produced before March 2013 (serial number 1302XXXXXX or earlier.) Memory on these models is fixed and cannot be expanded.

16MB for models produced after March 2013 (serial number 1303XXXXXX or later.) No further memory expansion is available.

Minimum and Maximum Feature Capacities

The memory allocation program determines how memory is divided to support each feature. (Maximum limits for 4mb memory models are noted in *parenthesis*.)

- PLUs - you must allocate a **minimum of 300 PLUs**, a maximum of approximately 23,950 *(4000)* is determined by available memory.
- Clerks – you must allocate **at least 1 clerk**, with a maximum of 99. (Note you also must allocate at least one guest check for each clerk.)
- Groups – you must allocate **at least 1 group**, with a maximum of 99.
- Guest Checks – you can allocate a maximum of approximately 500 *(200)* hard or soft checks
- Soft Check Lines – you can allocate a maximum of 230 *(100)* lines per check
- Check Type – select hard or soft checks
- Levels – allocate one or two price levels.
- Mix & Match Discount Tables – default is 10 you can allocate a maximum of 100.
- Electronic Journal – Default is 1000 lines; maximum is 50,000 *(1000)* lines.

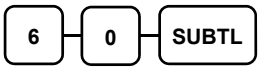
Important Memory Allocation Notes

- Memory variable maximums are theoretical. For example, if all other variables are at or near zero, then 23,950 (4000) PLUs are possible. Note check memory, especially soft check memory, and clerk memory consume considerable memory.
- Using the clerk interrupt feature requires allocation of at least one guest check for each clerk and sufficient soft check lines to support the interrupted transaction (i.e. if 20 soft check lines are allocated, a transaction with up to 20 lines can be interrupted.) See System Option flag # 26 to select clerk interrupt operations instead of table management (check tracking) operations.
- All models default to 1000 lines of electronic journal. For models with journal printers, you may wish to set electronic journal to "0" so that memory may be used for other options.

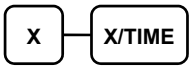
Memory Allocation Program

Once you have determined the memory variables you wish to set, you can set them in the memory allocation program. If you attempt to allocate more options than memory, the message "MEMORY ALLOCATION SIZE OVER" will print on the receipt and journal. *Setting memory allocation will require some trial and error; the register will not allow over-allocation.*

1. Turn the control lock to the **S** position.
2. To Allocate Memory, enter **6 0** and press the **SUBTL** key.



3. Refer to the chart below and enter a digit to represent allocated area and press the **X/TIME** key.



X	Allocated Area
1	PLU
2	CLERK
3	GROUP
4	CHECK#
5	SOFT CHECK LINES
6	CHECK TYPE : Hard(1), Soft(0)
7	# of PRICE LEVELS
8	MIX & MATCH
9	ELECTRONIC JOURNAL LINES

4. Enter the desired allocation.

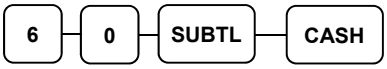
   Note: for the CHECK TYPE entry, enter 0 for soft check or enter 1 for hard check.

5. Repeat from step 3 to allocate another area or press the **CASH** key to finalize the program. If the allocation is accepted, the printer will print the new allocation. If the allocation is not accepted, the message "ALLOCATION OVER" will display.

Memory Allocation Program Scan

You can read the current memory allocation with the following sequence:

1. Turn the control lock to the **S** position.
2. Enter **6 0**, press the **SUBTL** key and then press the **CASH** key.




```
DATE 04/02/2011 FRI   TIME 08:37

================================
TTL AVAIL : 327680
TTL USED : 269050
--------------------------------
1.ALLOCATED PLU IS :2000
2.ALLOCATED CLERK IS :10
3.ALLOCATED GROUP IS :20
4.ALLOCATED CHECK IS :10
5.ALLOCATED CHK LINE IS :50
6.ALLOCATED HARD(1),SOFT(0):0
7.ALLOCATED LEVEL IS : 1
8.ALLOCATED M&M IS :20
9.ALLOCATED EJ LINE IS : 1000
================================
CLERK 1           000001   00001
```

Function Key Assignment Programming

Function keys may be relocated, inactivated or changed with this program. For example, you may wish to add functions, such as PREVIOUS BALANCE and SERVICE, which may not be placed on the default keyboard. Or perhaps, you may wish to remove a function, such as CANCEL, for security reasons.

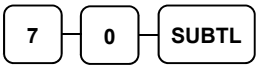
Please note the following limitations:

If you assign a duplicate of a function code, the duplicate will function exactly as the original - you will not get separate totals and counters on reports for the duplicated key.

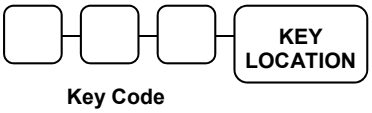
You can reassign keys only in locations that are programmable. See "Keyboards" on page 17 to determine the key locations that are fixed and cannot be changed.

To Assign a Function Key to a Location

1. Turn the control lock to the **S** position.
2. Enter **7 0** and press the **SUBTL** key.



3. Refer to “Function Key Codes” on page 102 to find the code for the key you wish to assign. Enter the code and press the location you wish to program. Repeat this step to assign another key.



4. Press the **CASH** key to finalize key assignment programming.

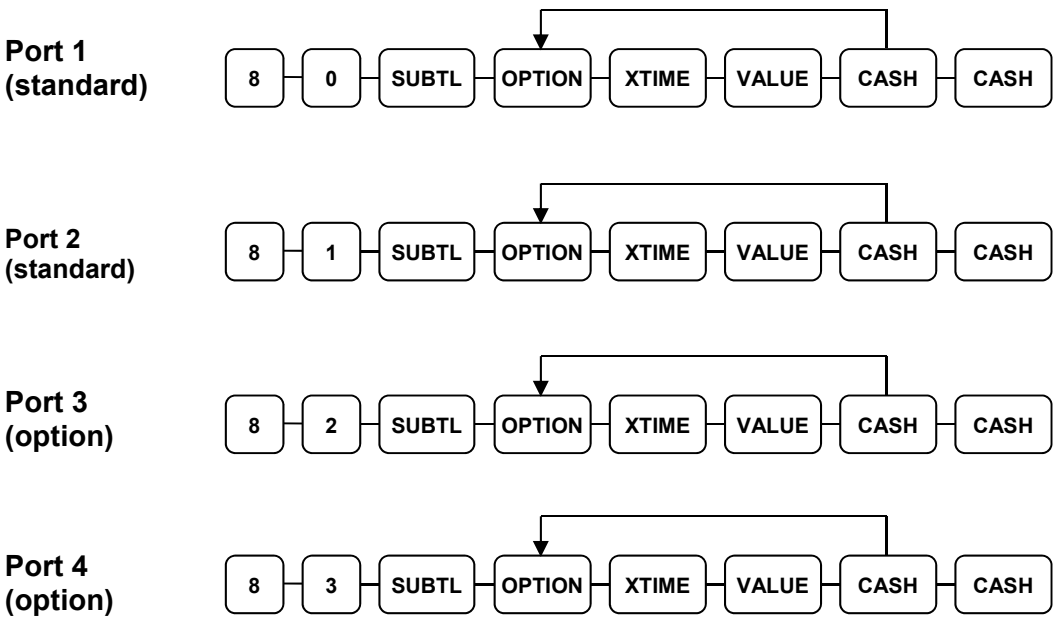
Function Key Codes

Code	Function	Code	Function	Code	Function	Code	Function
1 - 300	NLU 1 *thru* NLU 300	**328**	CHARGE 6	**357**	MACRO 2	**386**	SCALE
		329	CHARGE 7	**358**	MACRO 3	**387**	SERVICE
301	Numeric 1	**330**	CHARGE 8	**359**	MACRO 4	**388**	TABLE #
302	Numeric 2	**331**	CHECK CASHING	**360**	MACRO 5	**389**	TARE
303	Numeric 3	**332**	ENDORSE	**361**	MACRO 6	**390**	TAKE OUT
304	Numeric 4	**333**	CHECK TEND	**362**	MACRO 7	**391**	TAX EXEMPT
305	Numeric 5	**334**	CHECK #	**363**	MACRO 8	**392**	TAX SHIFT 1
306	Numeric 6	**335**	CLEAR (ESC)	**364**	MACRO 9	**393**	TAX SHIFT 2
307	Numeric 7	**336**	CLERK #	**365**	MACRO 10	**394**	TAX SHIFT 3
308	Numeric 8	**337**	CURR. CONV. 1	**366**	RETURN	**395**	TAX SHIFT 4
309	Numeric 9	**338**	CURR. CONV. 2	**367**	MOD 1	**396**	NOT USED
310	Numeric 0	**339**	CURR. CONV. 3	**368**	MOD 2	**397**	TIP
311	Numeric 00	**340**	CURR. CONV. 4	**369**	MOD 3	**398**	VOID
312	DECIMAL	**341**	DRIVE THRU	**370**	MOD 4	**399**	WASTE
313	#/NS	**342**	EAT-IN	**371**	MOD 5	**400**	NOT USED
314	%1	**343**	ERR CORRECT	**372**	P/BAL	**401**	VALIDATION
315	%2	**344**	F/S SHIFT	**373**	NOT USED	**402 - 441**	NOT USED
316	%3	**345**	F/S SUB	**374**	NOT USED	**442**	FINALIZE
317	%4	**346**	F/S TEND	**375**	PAID OUT 1	**443**	PAYMENT
318	%5	**347**	NOT USED	**376**	PAID OUT 2	**444**	PAY TENDER
319	XTIME	**348**	NOT USED	**377**	PAID OUT 3	**445**	PRICE INQ
320	ADD CHECK	**349**	GUEST	**378**	RECEIPT FEED	**446**	RECEIPT ON/OFF
321	CANCEL	**350**	PLU	**379**	NOT USED	**447**	INACTIVE
322	CASH	**351**	PRICE LEVEL 1	**380**	PRINT CHECK	**448**	NON ADD
323	CHARGE 1	**352**	PRICE LEVEL 2	**381**	PROMO	**449**	JOURNAL FEED (2-Station Models)
324	CHARGE 2	**353**	NOT USED	**382**	REC ON ACCT 1	**450**	PRICE CHANGE (v1.053 or later)
325	CHARGE 3	**354**	NOT USED	**383**	REC ON ACCT 2	**451**	DATATRAN TIP (v1.072 or later)
326	CHARGE 4	**355**	NOT USED	**384**	REC ON ACCT 3		
327	CHARGE 5	**356**	MACRO 1	**385**	SUBTL		

RS-232 Communication Option Programs

You must define the device(s) attached to the RS-232C communications ports, and the options for the device(s).

1. Turn the control lock to the **S** position.
2. Enter **8 0** (enter **8 1** to program the second port; **8 2** for the optional third port; and **8 3** for the optional fourth port) and press the **SUBTL** key.
3. Refer to the chart RS-232C option chart that follows and enter the address number of the option you wish to program and press the **X/TIME** key.
4. (For example, enter 5 to select the device that will be connected.)
5. Enter the value that represents your selection and press the **CASH** key.
6. (For example, if you are programming the device *(address 5)* enter **6** if the device is a scanner.)
7. Repeat from step 2 for additional options you wish to program.
8. Press **CASH** to exit the program.



RS-232 Option Chart

Address	Option	Value	Selection
1	Baud Rate	0	9600 BPS
		1	1200 BPS
		2	2400 BPS
		3	4800 BPS
		4	19200 BPS
		5	38,200 BPS
		6	57,600 BPS
		7	115,200 BPS
2	Parity	0	NONE
		1	ODD
		2	EVEN
3	Data Bits	0	8 BITS
		1	7 ITS
4	Stop Bits	0	1 BIT
		1	2 BIT
5	Device Function	0	NONE
		1	PC
		2	SCALE
		3	Remote Journal (TVS Interface)
		4	Remote Printer
		5	Liquor Dispenser
		6	Scanner
		7	COIN
		8	DATATRAN
		9	Pole Display
		10	PDC
6	Initial Feeding Line KP	0 - 20	
7	End Feeding Line KP	0 - 20	
8	Initial Feeding Line Slip	0 - 20	
9	Print Line On Guest Check	0 - 50	
10	Scale Type	0	NCI
		1	CAS
		2	CAS Ounce

Address	Option	Value	Selection
11	Printer Type	0	NONE
		1	SAM4s ELLIX10
		2	SAM4s ELLIX20
		3	SRP-270/270, SNBC M280
		4	SRP-350, SNBC R580/2002NP/880NP
		5	CITIZEN 3550
		6	CITIZEN 810
		7	CITIZEN 230
		8	EPSON TM T88-2
		9	EPSON U200
		10	EPSON U295
		11	EPSON U300
		12	EPSON U325
		13	EPSON U375
		14	STAR SP-200
		15	STAR SP-298
		16	STAR SP-300
		17	STAR TSP-200
12	Display Type	0	EPSON
		1	ICD

SD Card Utilities

Program Backup and Restore

You can use an SD flash memory card to backup and restore the full program. The program data is saved in a separate folder named with the store name as programmed in system option #30.

The SD card can also be used to save reports, which can then be viewed on a PC using the ER-900 PC Utility. The report data is saved in a separate folder named with current date and time.

NOTE: SD cards must be 2GB or less and formatted as FAT32.

Read Carefully: Store Name Notes

The store name you set in "System Option Programming", option #30 on page 139 is used to identify the program and report data on the SD card. You will need to program this option to an 8-character store name of your choosing.

If you are using the SD Card to move information to a PC or use the program or report data with the PC Utility, you must pay close attention to the store name. Do not use characters such as hyphens "–" or slash marks "/" that cannot be used in naming a folder on your PC. If you use such a character in your store name, you will not be able to read the backup files on your PC.

The Store Name field is 8-characters in length. If the store name is set to less than 8-characters, the register will fill in 0's be combined with the store name to create a unique 8-character identifier.

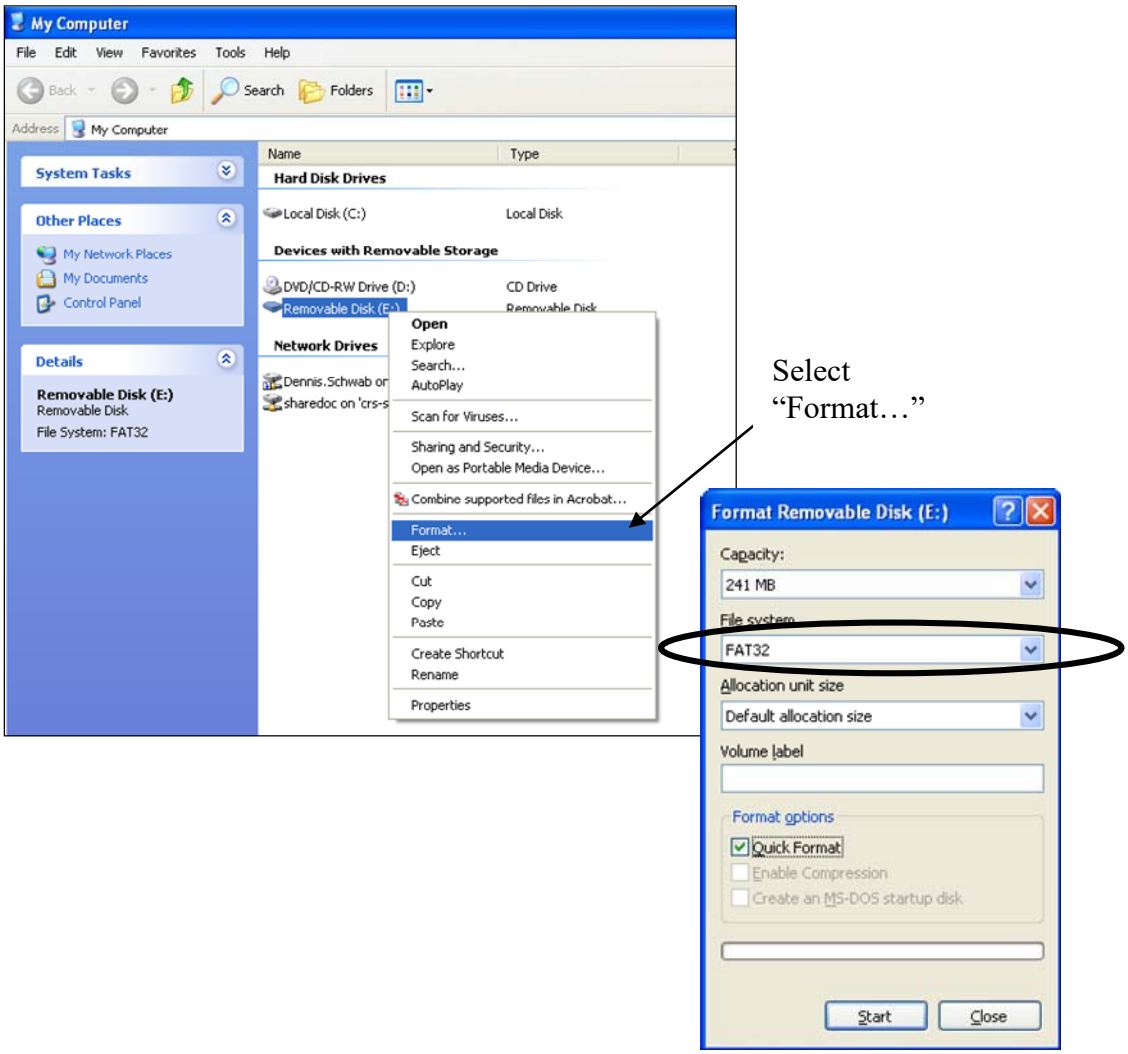
For example, if the store name is "QA" the register will fill in 000000's for the store name; the folder created on the SD card for the store data (both the PGMBACK and the REPBACK) will be named "QA000000". If you type in the store name "DDD", the folder name will be "DDD00000".

To restore the program, you will need to reset the store name in System Option #30 to reflect the store name on the SD card. For this reason, it is best to use an 8-character store name in system option #30.

Formatting an SD Card

⚠ Caution: Formatting the SD card will clear all data on the SD card and prepare it for use.

1. Start Windows Explorer.
2. Select the SD card drive, right click and select **Format**. (Win XP screen shown; slightly different procedures are used with different operating systems.)

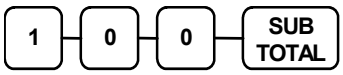


3. From the Format dialog you must select the **File System: FAT32**.
4. From the format options check the **Quick Format** selection.
5. Click **Start** to format the SD card.

Backing Up the Program to an SD Card

CAUTION: When backing up and restoring data, the store name must be programmed in system option #30.
Also Note: To restore a program backup, the memory allocation must be set the same as the saved program. Be sure to print out the memory allocation when backing up so that it can be re-entered before restoring the program. S-Mode: 60 SBTL CASH

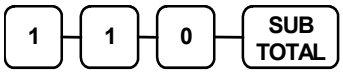
1. Turn the control lock to the **S** position.
2. To back up the program to SD, enter **1 0 0**, press the **SUBTOTAL** key.



Restore Program from the SD Card

CAUTION: Memory allocation must be set the same as the saved program. Be sure to print out the memory allocation so that it can be re-entered before restoring the program.

1. Turn the control lock to the **S** position.
2. To load the entire program to the register from the SD card, enter **1 1 0**, press the **SUBTOTAL** key.



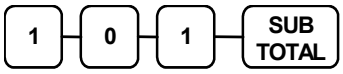
3. Beginning at software version 1.019, you can restore program areas separately: Enter the **3-DIGIT CODE** from the table below and press the **SUBTOTAL** key.

Code	Program Area	Code	Program Area
141	PLU only	**142**	Group only
143	Tax only	**144**	System only
145	Print only	**146**	Function key only
147	Clerk only	**148**	Logo only
149	FIN Report Logo	**150**	CLK Report Logo
151	Stock only	**152**	Macro only
153	MISC only	**154**	MNM only

Saving Reports to an SD Card

Reports saved are the current X1 readings. Reports can be saved in .rep file format for use by the 900 PC Utility or .csv file that can be opened in Microsoft Excel™. (This feature is available beginning at version 1.018.)

1. To save in .rep format, turn the control lock to the **S** position.
   To save in .csv format, turn the control lock to the **X** position
2. To backup Reports to SD, enter **1 0 1**, press the **SUBTOTAL** key.



Load/Save Receipt Images

You can load a preamble and postamble image for your ER-900 receipt. Before loading, the images must be converted by the PC Utility to .img format. After conversion, they can be loaded directly by connecting a PC to the ER-900 or by copying the images to a SD card and loading (or saving the image) using the SD utility program described here.

Note that after loading the images, you must set Print Options #21 and #22 to activate the image printing.

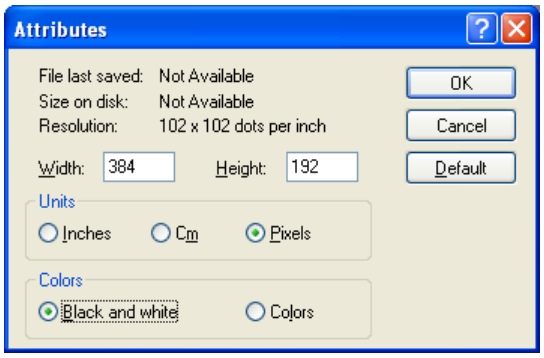
1. Preparing a Graphic Logo Bitmap for an ER-900 Series

The image must be a black/white monochrome bitmap, 384 x 192 pixel, and 10 Kbytes or less in size.

If your image does not meet this specification, you will need to use a graphic program to resize it, convert it to a black/white image and save it as a bitmap (.bmp). The MS Paint graphic program provided in a Windows™ environment can be used. The instructions here use Paint in a Windows™ XP system. Depending upon your system, Paint may operate differently. Also be aware that color or gray-scale images may not convert effectively to black/white. Simple images work best. If you have difficulty, consult with a graphic program specialist.

Black and white will be inverted when printed on an ER-900 series printer. If you are using Paint to prepare you image, you may wish to choose Invert Colors from the Image menu if you wish your image to appear as black on a white background rather than white on a black background.

1. Open MS Paint (Window™ XP).
2. Open the image file you wish to use.
3. Choose **Attributes** from the **Image** menu. The Attributes dialog box displays.



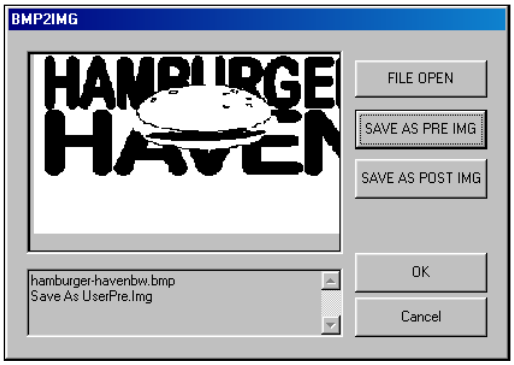
4. The image dimensions must be no larger than 384 pixels wide by 192 pixels high. If the image size in pixels is greater than the maximum, you must resize your image.
    a. Click **OK** to exit the Attributes dialog.
    b. Select your image. Choose **Select All** from the **Edit** menu.
    c. Using the handles of the selected image, resize the image. Keep the image in the upper left corner of the screen.
    d. Choose **Attributes** from the **Image** menu. The **Attributes** dialog box displays again. Enter **384** in the **Width** field; enter **192** in the **Height** field; select **Pixels** as the **Units**. Click **OK** to exit the dialog box.

e. Your image will be cropped to the 384 x 192 pixel size. If you cropped part of the image you wish to keep, you can undo (Ctrl + Z) and try again. You may have to experiment a bit to resize the image inside the 384 x 192 pixel limit.

5. After the image is sized, select Black and White in the Attributes dialog.
6. Save your image as type **"Monochrome Bitmap (*.bmp,*.dib)"** and confirm that the size is 10k or less. If you resized your original image, you may wish to rename when you save, so that you preserve a copy of the original image.

2. Use the PC Utility to Convert the Image

1. Install the ER-900 PC Utility on your PC.
2. At your PC, start the ER-900 PC Utility. (Select **Start**, **Programs**, **SHC PC UTILITY**, **ER-900 PC UTILITY**.) The Store Setting dialog box displays.
3. If you are starting the ER-900 PC Utility for the first time, you must define a store name, or if a store is already defined, you can select the store from the drop down list. After the store is defined or selected, click Close. The PC Utility program starts.
4. Move the .bmp logos you wish to use into the store directory (i.e. C:\ER-900PC\storename.)
5. At the PC Utility, choose **Convert Logo Image** from the **Utility** menu. The Bmp dialog box displays.
6. Click **FILE OPEN**. Select the bitmap image you wish to use from the Open dialog and click the Open command button.
7. Click the **SAVE AS PRE IMG** or **SAVE AS POST IMG** button.



8. When the image is selected, click **OK**. Verify that the message "Save As UserPre.Img" or "Save As UserPost.Img" displays. If the file is too large, and cannot be loaded, the message "File Size Error" displays.

3. Copy the Images to an SD Card

The PC Utility will create two image files:

- USERPRE.IMG
- USERPOST.IMG

They will be located in your PC at:

C:\ER-900PC\Store Name

Copy the mages to the following path on your SD card:

SD\\ER900\PGMBACK\Store Name

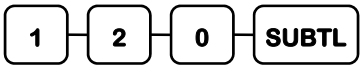
Important: In the path: C:\ER-900PC\Store Name, the store name is the name you have defined as the store in the PC Utility.

Note: You must use the same 8-character store name in the ER-900 Series ECR at System Option #30.

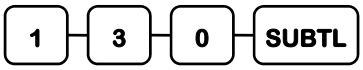
---

4. Load the Images by SD Card

1. Insert the SD card in the register's SD slot. Note: The SD slot is located in the printer compartment of the ER-900. Remove the security screw to access the slot.
2. Turn the control lock to the S position.
3. To load the **Preamble Image** to the register from the SD card, enter **1 2 0**; press the **SUBTOTAL** key.

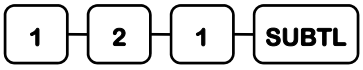


4. To load the **Postamble Image** to the register from the SD card, enter **1 3 0**; press the **SUBTOTAL** key.

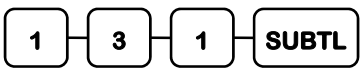


5. Save Images from an ER-900 to an SD Card

1. Insert the SD card in the register's SD slot. Note: The SD slot is located in the printer compartment of the ER-900. Remove the security screw to access the slot.
2. Turn the control lock to the **S** position.
3. To save the **Preamble Image** from the register to the SD card, enter **1 2 1**; press the **SUBTOTAL** key.



4. To save the **Postamble Image** from the register to the SD card, enter **1 3 1**; press the **SUBTOTAL** key.



Flash ROM Updates

The ER-900 register software is loaded in Flash ROM. This program may occasionally be updated by the manufacturer. Your SAM4s dealer can update the software if necessary.

The Flash ROM can be loaded through by SD card or by using a PC Update Program (NEWNET_DOWN.exe.)

NOTE: The flash ROM program file name was changed to from NEWNET.bin to ER900.bin beginning at version 1.030.

CAUTION: Flash ROM update by either method must be done by a qualified, trained technician. DO NOT POWER OFF OR ABORT any program loading once it has started. Failure to follow the procedures exactly may cause the register to fail completely.

Flash ROM Update by SD

The ER-900 Flash ROM program is contained in a file named ER900.bin. This file will be provided to the authorized dealer by CRS, Inc. and contains both the Boot program area and the Application program area. You must load both the Boot Area and the Application Area updates.

1. At your PC, format the SD Card for **FAT32**. (See the "Formatting an SD Card" on page 107 for this procedure.)
2. Create a folder named **update** in the root of the SD card.
3. Copy ER900.bin to: **SD:/update/**.
4. Insert the SD card into the register. (The SD slot is located inside the printer compartment. Remove the security screw and open the flap securing the SD slot. Insert the SD card until you hear a click and the SD card is locked in.)

Boot Area Update

1. Insert the key marked **"C"** and turn the control lock to the **S** position (the unmarked position clockwise from "P").
2. Power **OFF** the ER-900.
3. Press and hold the Numeral **1** key on the keyboard. While continuing to hold the Numeral **1** key, turn on the power switch. Immediately, a beep-beep-beep is heard.
4. Release the Numeral **1** Key.
5. The display will flash, slowly at first. After a few seconds a rapid beep-beep-beep will be heard again, and the display will flash rapidly (after version 1.022 the display will stop flashing to indicate the update is complete.) The boot update is now complete.
6. Turn the ECR power switch **OFF** and proceed directly to the next step: **Application Update**.

Application Area Update

7. Continue with the control lock in the **S** position.
8. Press and hold the Numeral **2** key on the keyboard. While continuing to hold the Numeral **2** key, turn on the power switch. Immediately, a beep-beep-beep is heard.
9. Release the Numeral **2** Key.
10. The display will flash (Current program is being erased), after a few seconds, the display will continue to flash, but at a slower rate. This continues for about 1-minute while the new program is being loaded. When the load is complete, a rapid beep-beep-beep will be heard, and the display will flash rapidly. (After version 1.022 the display will stop flashing to indicate the update is complete.)
11. Power the register **OFF**. The Flash ROM update is complete.
12. Perform a **MEMORY ALL CLEAR** on the ECR; see "Clearing Memory" on page 26. The ECR is now ready to program or to load a previously saved end-user program.
13. Remove the SD card from the register.

Flash ROM Update by PC

Update Files

To complete the firmware update, you will be supplied with the following files:

- NEWNET_DOWN.exe (The update utility program)
- ER900.bin

PC Connection Cable

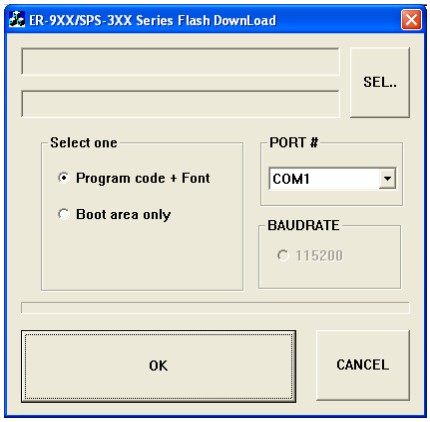
YOU MUST USE Port #1on the ECR. Use the following cable:

- CRS Part # 522120 (Register DB-9MF COM 1 to PC DB-9F)

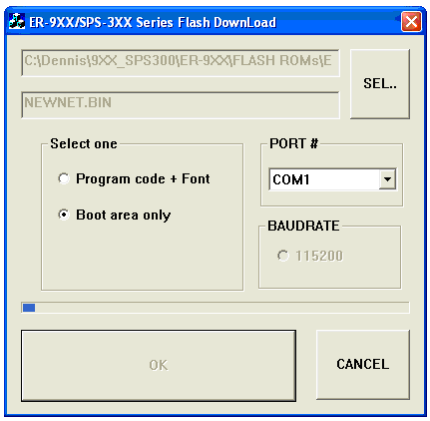
Update Boot Area

1. Connect the Serial Cable from **COM #1** the ECR to a serial port on your PC.
2. At the register, turn the control lock to the **S** position.
3. Turn the power switch to the **OFF** position.
4. Press and hold the **CASH** and **CLERK** keys. (Use the keys in their default locations, the upper-right and lower-right keys on the keyboard.)
5. While continuing to hold the **CASH** and **CLERK** keys, turn the power switch to the **ON** position. (The display will illuminate, and the error tone will sound beep-beep-beep in quick succession.) Release the keys.

6. At the PC, execute the program **"NEWNET_DOWN.exe"**. The Download dialog box displays.

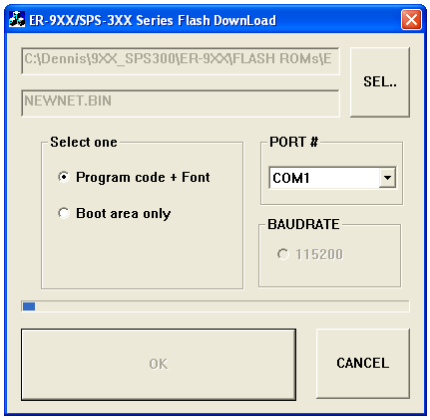


7. Select the appropriate PORT # connection at your PC at the **PORT#** option buttons.
8. Click **SEL. . .** find the folder where the update files are located and select ER900.bin.
9. Select **BOOT AREA ONLY** in the Select One option buttons.
10. Press **OK** Button. The download takes about 30 seconds; the scroll bar will track the progress of the download. At the ECR, the display will flash slowly while the update is taking place.



11. At the PC, the message **Completed** displays. Click **OK** and the Download program will close. At the ECR, the display will flash rapidly.
12. At the ECR, the display will flash rapidly, indicating the update is complete, Turn the power switch to the **OFF**.
13. Update Program Area
14. Connect the Serial Cable from **COM#1** on the ECR to a serial port on your PC.
15. At the register, turn the control lock to the **S** position.
16. Turn the power switch to the **OFF** position.
17. Press and hold the **CASH** and **CLERK** keys. (Use the keys in their default locations, the upper-right and lower-right keys on the keyboard.)

18. While continuing to hold the **CASH** and **CLERK** keys, turn the power switch to the **ON** position. (The display will illuminate and the error tone will sound beep-beep-beep in quick succession.) Release the keys.
19. At the PC, execute the program **"NEWNET_DOWN.exe"**. The Download dialog box displays.
20. Select the appropriate com port connection at your PC at the **PORT#** option buttons.
21. Click **SEL. . .** find the folder where the update files are located and select ER900.bin.
22. Select **PROGRAM CODE + FONT** in the Select One option buttons.
23. Press **OK** Button. The download takes about 3 minutes; the scroll bar will track the progress of the download.



24. The message **COMPLETED** displays. Click **OK** and the Download program will close.
25. The display will flash (Current program is being erased), after a few seconds, the display will continue to flash, but at a slower rate. This continues for about 3 minutes while the new program is being loaded. When the load is complete, a rapid beep-beep-beep will be heard, and the display will flash rapidly. Turn the power switch to **OFF**, the program update is complete.
26. Disconnect the PC cable.
27. Perform a **MEMORY ALL CLEAR** on the ECR. The ECR is now ready to program or to load a previously saved end-user program.

Flash ROM Information

The ER-900 register software is loaded in a Flash ROM. This procedure will provide a receipt with the current version, date and checksum for the Flash ROM.

1. Turn the control lock to the **S** position.
2. Enter **5 0** and press the **SUBTL** key.

3. After a short delay, the register will print a receipt as in the example below:

```
DATE 07/01/2011 FRI   TIME 08:37

          EPROM INFO.
VERSION  : USA 01.024
CHECKSUM : E039
BOOT/APP : A741/38F8
PLUs USED: 300/2000
EFT Ver. : DIRAN 01.000
MAR.  13   2012

CLERK 1           000001   00001
```

P-Mode Programming

Default Program

The ER-900 arrives with a default or generic program already installed. Program options are set to 0 (Zero), unless otherwise noted, which means the machine can be operated immediately after a RAM clear procedure is performed.

For example:

- All keyboard PLUs are nontaxable and open, without entry limits by default status programming of "000000000".
- All system options are set to 0 in default programming, unless otherwise noted. Change only the options that will deviate from default programming. There is no need to re-enter an option status of 0, since 0 is its original setting.

All programming (unless otherwise noted) is done with the control lock in the PGM position. Each section details a specific area of register programming.

Tax Programming

The ER-900 has the capability to support up to four separate tax rates.

Taxes can be calculated as either a straight percentage rate of between .001% and 99.999%, or as a tax table with up to 60 break points. Each tax may be either an add-on tax (added to the cost of a taxable item), or a value added tax (VAT) that is included in the price of the item.

Tax rate 4 may be set to function as the Canadian Goods & Services Tax (GST). If Tax 4 is designated as GST, table programming for the rate is not allowed.

Definitions for tax rates 1, 2, 3 & 4 are made as part of tax programming.

- If you are entering a tax rate (add-on or VAT), see "Straight Percentage Tax Rate Programming" to enter the percentage rate.
- If you are entering a tax table, see “Tax Table Programming” to enter the tax break points.
- If you are entering a Canadian Goods and Services Tax (GST), use tax rate 4 for the GST tax, and use tax rates 1, 2 and/or 3 for any other provincial tax or taxes. See "Straight Percentage Tax Rate Programming" to enter the GST status and percentage rate.

Important Note: After you have entered your tax program(s), test for accuracy by entering several transactions of different dollar amounts. Carefully check to make sure the tax charged by the cash register matches the tax on the printed tax chart for your area. As a merchant, you are responsible for accurate tax collection. If the cash register is not calculating tax accurately, contact your dealer for assistance.

Straight Percentage Tax Rate Programming

Often, tax requirements may be met using a straight percentage rate. Use the following method to program a tax as a straight percentage.

Important Note: Tax programming procedures were updated at software version 1.019. Beginning at this version it is no longer necessary to have multiple tax shift keys on the keyboard when multiple taxes are used: all tax programming is done through the TAX 1 key. Please use the appropriate instructions for the version you are programming.

Programming Straight Percentage Tax Rates and Status (v1.019 or later)

1. Turn the control lock to the **PGM** position.
2. If the tax is a percentage rate, with a decimal. (0.000-99.999). It is not necessary to enter preceding zeros. For example, for 6%, enter 06.000 or 6.000.
3. For the type of tax:

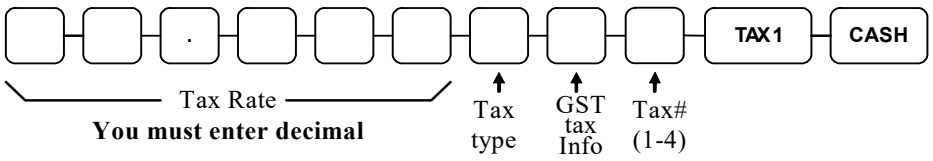
If the tax is a percentage added to the sale (normal add on tax), enter:	0
If the tax is a percentage value added tax (VAT; calculated as part of the sale), enter:	2

4. Enter **0** *(zero)* here for all taxes, unless if you are programming tax 4 as a Canadian GST. If tax 4 is a Canadian GST, enter the sum of the options below:

OPTION	VALUE	=	SUM
GST (tax 4) is taxable by rate 1?	Yes = 1 No = 0		
GST (tax 4) is taxable by rate 2?	Yes = 2 No = 0		
GST (tax 4) is taxable by rate 3?	Yes = 4 No = 0		

5. Enter the number **(1-4)** of the Tax# you are programming.
6. Press the **TAX 1** key.
7. Press the **CASH** key to end programming.

Tax Rate Programming Flowchart



Programming Straight Percentage Tax Rates and Status (Up to v1.017)

1. Turn the control lock to the **PGM** position.
2. If the tax is a percentage rate, with a decimal. (0.000-99.999). It is not necessary to enter preceding zeros. For example, for 6%, enter 06.000 or 6.000.
3. For the type of tax:

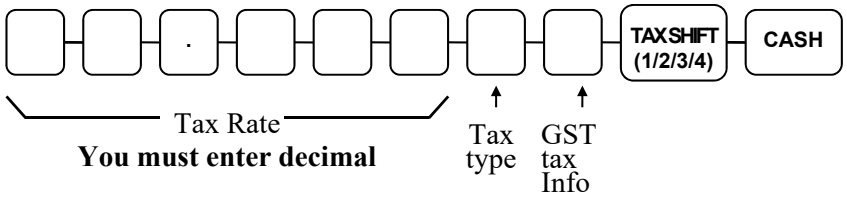
If the tax is a percentage added to the sale (normal add on tax), enter:	0
If the tax is a percentage value added tax (VAT; calculated as part of the sale), enter:	2

4. Enter **0** *(zero)* here for all taxes, unless if you are programming tax 4 as a Canadian GST. If tax 4 is a Canadian GST, enter the sum of the options below:

OPTION	VALUE	=	SUM
GST (tax 4) is taxable by rate 1?	Yes = 1 No = 0		
GST (tax 4) is taxable by rate 2?	Yes = 2 No = 0		
GST (tax 4) is taxable by rate 3?	Yes = 4 No = 0		

5. Press the **TAX SHIFT** key for the tax you are programming.
6. Press the **CASH** key to end programming.

Tax Rate Programming Flowchart



Tax Table Programming

In some cases, a tax that is entered as a percentage does not follow exactly the tax charts that apply in your area (even if the tax chart is based on a percentage). In these cases, we recommend that you enter your tax using tax table programming. This method will match tax collection exactly to the break points of your tax table.

Before programming, obtain a copy of the tax table you wish to program. You will need the printed tax table if you wish to determine the break point entries yourself.

Note: You can enter a tax table with up to **60** break points.

Important: Tax program procedures were updated at software version 1.019. Beginning at this version it is no longer necessary to have multiple tax shift keys on the keyboard when multiple taxes are used: all tax programming is done through the TAX 1 key. Please use the appropriate instructions for the version you are programming.

Determining Break Point Entries

1. Examine the printed tax table for the tax you are programming.
2. Refer to the "Tax Table Programming Example" on page 122 to help with this exercise.
3. Calculate the break point differences by subtracting the high side of the previous range from the high side of the dollar range.
4. Examine the pattern of break point differences to determine when the break points begin to repeat. Mark the beginning break points that do not fit a pattern as "non-repeat breaks." Mark the break points that are repeating in a pattern as "repeat breaks."

Tax Table Programming Example - 6% Tax Table

Tax Charged	Sale Dollar Range	Break point Differences	
$0.00	$0.00 - $0.10		
$0.01	$0.11 - $0.21	11	
$0.02	$0.22 - $0.38	17	
$0.03	$0.39 - $0.56	18	Non-Repeat
$0.04	$0.57 - $0.73	17	
$0.05	$0.74 - $0.91	18	
$0.06	$0.92 - $1.08	17	
$0.07	$1.09 - $1.24	16	Repeat
$0.08	$1.25 - $1.41	17	
$0.09	$1.42 - $1.58	17	
$0.10	$1.59 - $1.74	16	
$0.11	$1.75 - $1.91	17	
$0.12	$1.92 - $2.08	17	
$0.13	$2.09 - $2.24	16	
$0.14	$2.25 - $2.41	17	

Important: Tax program procedures were updated at software version v1.019. Beginning at this version it is no longer necessary to have multiple tax shift keys on the keyboard when multiple taxes are used: all tax programming is done utilizing the TAX 1 key. Please use the appropriate instructions for the version you are programming.

To enter the sample program for the Illinois 6% tax table in TAX 1:

1. For firmware **V1.019** and later; enter **1 0 1** and press the **TAX 1** key.
   *(For software versions up to **v1.017**; enter **1 0** and press the appropriate **TAX SHIFT** key.)*
2. Enter **1 0** (the maximum amount that is not taxed), press the **TAX 1** key.
3. Enter **1** (the first tax amount charged), press the **TAX 1** key.
4. Enter **2 1** (non-repeat break point), press the **TAX 1** key.
5. Enter **3 8** (non-repeat break point), press the **TAX 1** key
6. Enter **5 6** (non-repeat break point), press the **TAX 1** key.
7. Enter **7 3** (non-repeat break point), press the **TAX 1** key.
8. Enter **9 1** (non-repeat break point), press the **X/TIME** key.
9. Enter **1 0 8** (repeat break point), press the **TAX 1** key.
10. Enter **1 2 4** (repeat break point), press the **TAX 1** key.
11. Enter **1 4 1** (repeat break point), press the **TAX 1** key.
12. Press the **CASH** key to complete the tax program.

Programming a Tax Table (Versions v1.019 or later)

1. Turn the control lock to the **PGM** position.
2. Enter **101** for TAX 1
   Enter **102** for TAX 2
   Enter **103** for TAX 3
   Enter **104** for TAX 4
3. Press the **TAX 1** key.
4. Enter the maximum amount that is not taxed and press the **TAX 1** key.
5. Enter the first tax amount charged and press the **TAX 1** key.
6. For each non-repeat break point, up to the last non-repeat break point, enter the high side from the sale dollar range and press the **TAX 1** key.
7. For the last non-repeat break point, enter the high side from the sale dollar range and press the **X/TIME** key.
8. For each repeat break point, enter the high side from the sale dollar range, follow by pressing the **TAX 1** key after each entry.
9. Press the **CASH** key to end the tax table program.

Programming a Tax Table (Versions up to v1.017)

1. Turn the control lock to the **PGM** position.
2. Enter **10**; press the **TAX SHIFT** key for the tax you are programming, i.e. TAX 1, TAX 2, TAX 3 or TAX 4.
3. Enter the maximum amount that is not taxed and press the appropriate **TAX** key.
4. Enter the first tax amount charged and press the appropriate **TAX** key.
5. For each non-repeat break point, up to the last non-repeat break point, enter the high side from the sale dollar range and press the appropriate **TAX** key.
6. For the last non-repeat break point, enter the high side from the sale dollar range and press the **X/TIME** key.
7. For each repeat break point, enter the high side from the sale dollar range and press the appropriate **TAX** key.
8. Press the **CASH** key to end the tax table program.

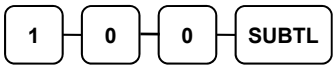
PLU Programming

All PLUs, whether they are registered by pressing a PLU key on the keyboard, or by entering the PLU number and pressing the PLU key, have the same programming options. These options are set through separate programs:

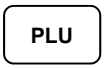
- ***"Program 100 – PLU Status Programming"*** determines whether the PLU is open, preset or inactive. Also selected here are tax, food stamp, scale, negative, single item, hash, gallonage, compulsory number entry, compulsory condiment and print options.
- ***"Program 110 – Auto Tare Programming"*** allows you to automatically subtract a pre-programmed tare weight when registering a scale PLU.
- ***"Program 150 – PLU Group Assignment"*** allows you to select up to three groups where each PLUs sales will accumulate.
- ***"Program 200 – PLU Price/HALO Programming"*** determines the PLU price if the PLU is preset, or the high amount lock out (HALO) if the PLU is open.
- ***"Program 250 – Stock Amount Programming"*** allows you to add stock to the PLU sales counters for PLUs you have designated as stock keeping PLUs.
- ***"Program 300 – PLU Descriptor Programming"*** allows you to set a unique descriptor, up to 18 characters, for each PLU.
- ***"Program 350 – PLU Link Programming"*** allows you to link a PLU to another PLU, so that registration of the first PLU will automatically trigger registration of the linked PLU.
- ***"Program 400 – PLU Delete Programming"*** allows you to delete a PLU.
- ***"Program 450 - PLU Mix and Match Programming"*** allows you to designate items eligible for mix and match discounts.

Program 100 - PLU Status Programming

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **1 0 0**, press the **SUBTL** key.



3. Select the PLU or PLUs you wish to program in one of the following ways:
   - Press a **PLU** key on the keyboard or scan the item.

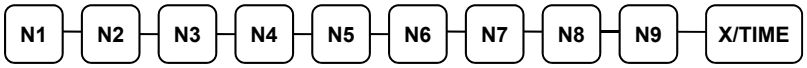


   - If sequential PLUs on the keyboard are to receive the same status, press the **first PLU** key and then press the **last PLU** key.

   - Enter the number of the **PLU** (up to 15 digits) and press the **PLU** function key.

   - Enter the number of the first **PLU** in a range of PLUs that are to receive the same setting; press the **PLU** key. Enter the last number in the range; press the **PLU** key.

4. Refer to the "PLU Status Chart" to determine the values for **N1** through **N9**. (If an address offers more than one option, add the values for each option and enter the sum. For example, if you wish the PLU to be taxable by rates 2 and 4, add the values for your choices, 1 + 4, and enter the sum "5" for address N2.) Enter the values you have selected, press the **X/TIME** key. ***(You do not need to enter preceding zeros.*** *For example, if you are only selecting a value for **N9**, just enter that value.)*



5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

PLU Status Chart

Address	Program Option	Value	=	Sum
N1	PLU is preset?	Yes = 0 No = 1		
	PLU is override preset?	Yes = 0 No = 2		
	PLU is taxable by rate 1?	Yes = 4 No = 0		
N2	PLU is taxable by rate 2?	Yes = 1 No = 0		
	PLU is taxable by rate 3?	Yes = 2 No = 0		
	PLU is taxable by rate 4?	Yes = 4 No = 0		
N3	PLU is food stamp eligible?	Yes = 1 No = 0		
	PLU is negative item?	Yes = 2 No = 0		
	PLU is hash?	Yes = 4 No = 0		
N4	PLU is single item?	Yes = 1 No = 0		
	Compulsory non-add number?	Yes = 2 No = 0		
	PLU is gallonage?	Yes = 4 No = 0		
N5	PLU is stock?	Yes = 1 No = 0		
	PLU is inactive?	Yes = 2 No = 0		
	PLU is scalable?	Yes = 4 No = 0		
N6	PLU is auto-scale entry?	Yes = 1 No = 0		
	PLU is a condiment?	Yes = 2 No = 0		
	Compulsory condiment entry?	Yes = 4 No = 0		
N7	Print PLU on receipt?	Yes = 0 No = 1		
	Not Used	0		
	Print PLU on check?	Yes = 0 No = 4		
N8	Print item’s price on receipt?	Yes = 0 No = 1		
	Print item’s price on check?	Yes = 0 No = 2		
	PLU is disabled PROMO function?	Yes = 4 No = 0		
N9	PLU counter is not reset when a PLU Z report is done?	Yes = 1 No = 0		
	PLU is preset override in MGR control?	Yes = 2 No = 0		
	Disable Void & Return	Yes = 4 No = 0		

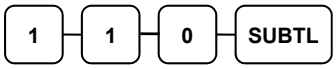
PLU Options - Reference Information

Option	Description
PRESET OVERRIDE	If Yes, you can enter a price to override the preset Price/HALO.
FOOD STAMP ELIGIBLE	Select Yes to accumulate a total of food stamp eligible items in the current sale. The total can be viewed by pressing the F/S SUB key and food stamps can be tendered with the F/S TEND key.
HASH	Items designated with HASH status add to the current sale, but do not add to the registers grand total. HASH items may or may not add to the net sales total - see system option programming. Use hash for lottery sales or bottle deposits.
SINGLE ITEM	Select Yes for a single item PLU. Single item PLUs automatically total as a cash sale immediately after the PLU entry. Single item PLUs are used to speed up one item sales.
NON-ADD # COMP	Select Yes to enforce the entry of a non-add number before a registration can be made.
GALLONAGE ITEM	Select Yes to compute gallons sold. The gallons sold will print along with the price entry on the receipt. The total gallons sold will accumulate in the PLU counter. You must program the price per gallon (in tenths of a cent, i.e. $1.299 for $1.29 and 9/10) in the PRICE/HALO field.
STOCK ITEM	Select Yes if you wish to track the number of items remaining in stock using the Stock report.
SCALEABLE	If Yes, the PLU will work only when you are multiplying a weight from an optional scale or when multiplying a manually entered weight. (For example, enter weight, press SCALE, then register PLU.)
AUTO SCALE	Select Yes if you wish entries into this PLU to be automatically multiplied by the weight on the optional scale.
CONDIMENT	Select Yes if you wish the item to act like a condiment on the kitchen printer. Items with this status will satisfy the requirements of items with compulsory condiment status.
COMPULSORY CONDMNT	Select Yes if you wish to force the entry of a condiment after this item is entered.
PRINT ON RECEIPT PRINT ON CHECK	Select No if you wish to suppress printing of the item at the designated location.
PRT PRICE ON RCPT	Select No if you wish to suppress printing of the item's price on the receipt.
PRT PRICE ON CHK	Select No if you wish to suppress printing of the item's price on the check.
DISABLE PROMO	Select Yes to block the PROMO function on this PLU.
COUNTER NOT RESET	Select Yes if you do not wish to reset the PLU item counter on the Z PLU report.
PRESET OVERRIDE IN MGR CONTROL	If preset override is Yes, then you can force manager control for preset override.

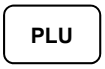
Program 110 - PLU Auto Tare Programming

Note: Tare #5 can be used for open tare entries.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **1 1 0**, press the **SUBTL** key.



3. Select the **PLU** or PLUs you wish to program in one of the following ways:
   - Press a **PLU** key on the keyboard or scan the item.



   - If sequential **PLU's** on the keyboard are to receive the same status, press the **First PLU** key and then press the **Last PLU** key.

   - Enter the number of the **PLU** (up to 15 digits) and press the **PLU** function key.

   - Enter the number of the **First PLU** in a range of PLUs that are to receive the same setting; press the **PLU** function key. Enter the number of the **Last PLU** in the range; press the **PLU** function key.

4. Enter a value **(1-5)** to indicate the number of the preprogrammed tare weight you want to automatically subtract when the PLU is used for scale entry (using an optional scale), and then press the **X/TIME** key. Enter 0 to disable automatic tare subtraction.

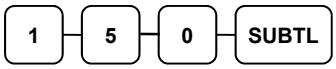
5. To program additional PLU's, repeat from step 3, or press the **CASH** key to finalize the program.

Program 150 - PLU Group Assignment

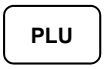
Each PLU may report to any three of 99 groups. Group totals appear on reports, so that you can track sales of different types of items. A group can also be used to designate items that are to print on an optional kitchen printer. The first of the three groups to which a PLU can be assigned determines kitchen printer routing.

Note: The PLU will report to group "1", if not programmed to report to another group.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **1 5 0**, press the **SUBTL** key.



3. Select the **PLU** or PLUs you wish to program in one of the following ways:
   - Press a **PLU** key on the keyboard or scan the item.



   - If sequential PLUs are to receive the same status, press the **first PLU** key and then press the **last PLU** key.

   - Enter the number of the **PLU** (up to 15 digits) and press the **PLU** function key.

   - Enter the number of the **First PLU** in a range of PLUs that are to receive the same setting; press the **PLU** key. Enter the last number of the **Last PLU** in the range; press the **PLU** key.

4. Enter up to three 2-digit numbers representing the groups where you wish to add the PLUs sales, i.e. enter **1 0** for Group Ten or enter **0 4** for Group Four. Press the **X/TIME** key.

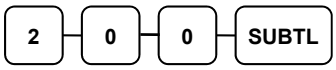
1st Group 2nd Group 3rd Group

5. (Note: If you are only programming the first Group, you need to enter 00 00 for the second and third Group; *i.e.: 01 00 00 - X/TIME)*
6. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

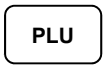
Program 200 - PLU Price/HALO Programming

If a PLU is open, set the HALO (high amount lock out) here. If a PLU is preset set the preset price here. If a PLU is set with gallonage status, enter the price per gallon here. (Enter price per gallon in tenths of a penny, i.e. 1299 for $1.29 9/10 per gallon.)

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **2 0 0**, press the **SUBTL** key.



3. Select the **PLU** or PLUs you wish to program in one of the following ways:
   - Press a **PLU** key on the keyboard or scan the item.



   - If sequential PLUs are to receive the same price, press the **First PLU** key and then press the **Last PLU** key.

   - Enter the number of the **PLU** (up to 15 digits) and press the **PLU** function key.

   - Enter the number of the **First PLU** in a range of PLUs that are to receive the same setting; press the **PLU** function key. Enter the number of the **Last PLU** in the range; press the **PLU** function key.

4. If the PLU is preset, enter a **Preset Price**. (The maximum preset price you can enter is $50,000.00.) If the PLU is open, enter a **HALO** of up to 7 digits. Press the **X/TIME** key.

Price/HALO

5. If you have allocated a second price level for PLUs, you must enter the **Second Price** for the item immediately after you have entered the first price. Press the **X/TIME** key.

2nd Level Price/HALO

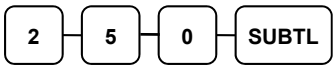
6. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

Program 250 - PLU Stock Amount Programming

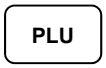
With this program, you can you can add stock to the PLU sales counters for PLUs you have designated as stock PLUs. See "Program 100 - PLU Status Programming" to set option N5 to set stock status. The stock number set here can be the amount of stock that is being added to the current level, or optionally, it can be the new total stock level. See option #18 in "

System Option Programming" to set this option.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **2 5 0**, press the **SUBTL** key.



3. Select the **PLU** or PLUs you wish to program in one of the following ways:
   - Press a **PLU** key on the keyboard or scan the item.



   - If sequential PLUs are to receive the same status, press the **First PLU** key and then press the **Last PLU** key.

   - Enter the number of the **PLU** (up to 15 digits) and press the **PLU** function key.

   - Enter the number of the **First PLU** in a range of PLUs that are to receive the same setting; press the **PLU** function key. Enter the number of the **Last PLU** in the range; press the **PLU** function key.

4. Enter the stock amount you wish to add (up to six digits), press the **X/TIME** key.

Stock Amount

5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

Program 300 - PLU Descriptor Programming

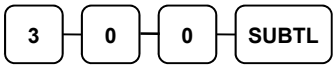
Program descriptors on the ER-920/940 and ER-925/045 by typing descriptors using the alpha keyboard overlay or by entering the three-digit alpha character codes. On the ER-915, descriptors must be programmed using the 3-digit code method.

To enter descriptors by three-digit alpha character codes you must set system option #31 (See "System Option Programming" on page 138).

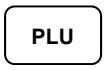
Note: You can program descriptors up to 18 characters, but only the first 16 characters will appear on the display when the PLU is registered; however, all 18 characters will print on the receipt.

---

1. Turn the control lock to the **PGM** position
2. To begin the program, enter **3 0 0**, press the **SUBTL** key.

3. Select the **PLU** you wish to program in one of the following ways:
   - Press a **PLU** key on the keyboard or scan the item.

   - Enter the number of the **PLU** (up to 15 digits) and press the **PLU** function key.

4. If you are programming using an alpha keyboard overlay, type up to 18 descriptors on the overlay and press the **X/TIME** key.

   Type up to 18 descriptor keys → X/TIME

   If you are programming using descriptor codes, enter up to 18 three-character codes and press the **X/TIME** key. (See "Descriptor Code Chart" on page 134.)

   Enter up to 18 three-character codes → X/TIME

5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

ER-925/ER-945 Alpha Keyboard Overlay

Note: There is no alpha overlay option for the default 21-PLU Location version of the ER-900 Series. You must use the descriptor code entry method for the 21-key configuration.

A	H	O	V	#	)	"	SPACE		FEED	JOURNAL FEED			
B	I	P	W	$	-	,	SPACE						
C	J	Q	X	%	+	.	CAP		CLEAR	PLU	X/TIME		
D	K	R	Y	^	=	/	DOUBLE		7	8	8		
E	L	S	Z	&	;	<	BACK		4	5	5	SUBTOTAL	
F	M	T	!	*	:	>			1	2	2	CASH TEND	
G	N	U	@	(	'	?			0	00	.		

ER-920/ER-940 Alpha Keyboard Overlay

1	11	21	31	41	51	61	71	81	91	FEED	JOURNAL FEED		
2	12	22	32	42	52	62	72	82	92				
'	"	<	>	-	+	=	:	?					
!	@	#	$	%	^	&	*	(	)				
q	w	e	r	t	y	u	i	o	p				
a	s	d	f	g	h	j	k	l	;		CLEAR	PLU	X/TIME
z	x	c	v	b	n	m	,	.	/		7	8	9
CAP	DOUBLE	SPACE	SPACE	SPACE	SPACE	SPACE	CAP	DOUBLE	BACK		4	5	6
9	19	29	39	49	59	69	79	89	99		1	2	3
10	20	30	40	50	60	70	80	90	100		0	00	.

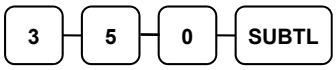
Descriptor Code Chart

CHAR	Ç	ü	é	â	ä	à	å	ç	ê	ë
CODE	001	002	003	004	005	006	007	008	009	010
CHAR	è	ï	î	ì	Ä	Å	É	æ	Æ	ô
CODE	011	012	013	014	015	016	017	018	019	020
CHAR	ö	ò	û	ù	ÿ	ö	Ü	¢	£	¥
CODE	021	022	023	024	025	026	027	028	029	030
CHAR	€	SPACE	!	“	#	$	%	&	‘	(
CODE	031	032	033	034	035	036	037	038	039	040
CHAR	)	*	+	,	-	.	/	0	1	2
CODE	041	042	043	044	045	046	047	048	049	050
CHAR	3	4	5	6	7	8	9	:	;	<
CODE	051	052	053	054	055	056	057	058	059	060
CHAR	=	>	?	@	A	B	C	D	E	F
CODE	061	062	063	064	065	066	067	068	069	070
CHAR	G	H	I	J	K	L	M	N	O	P
CODE	071	072	073	074	075	076	077	078	079	080
CHAR	Q	R	S	T	U	V	W	X	Y	Z
CODE	081	082	083	084	085	086	087	088	089	090
CHAR							a	b	c	d
CODE	091	092	093	094	095	096	097	098	099	100
CHAR	e	f	g	h	i	j	k	l	m	n
CODE	101	102	103	104	105	106	107	108	109	110
CHAR	o	p	q	r	s	t	u	v	w	x
CODE	111	112	113	114	115	116	117	118	119	120
CHAR	y	z	BACK SPACE			Double				
CODE	121	122	123			999				

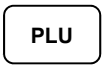
Program 350 – PLU Link Programming

PLU link programming allows you to link a PLU to another PLU, so that registration of the first PLU will automatically trigger registration of the linked PLU. For example, you may wish to link a bottle deposit with the sale of beverages, or you may wish to register a group of items normally sold together.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **3 5 0**, press the **SUBTL** key.



3. Select the **PLU** you wish to program in one of the following ways:
   - Press a **PLU** key on the keyboard or scan the item.



   - Enter the number of the **PLU** (up to 15 digits) and press the **PLU** Function key.

4. Enter the number of the **PLU** you wish the PLU linked to; press the **PLU** Function key; Or press the **PLU** key on the keyboard you wish the PLU linked to.

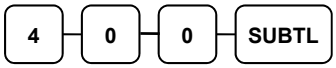
If you want to Remove PLU Link

5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

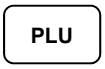
Program 400 – PLU Delete Programming

NOTE: To delete a PLU, all totals for the PLU must be cleared from both Z1 and Z2 reports, Stock reports and the Not Found PLU report.)

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **4 0 0**, press the **SUBTL** key.



3. Select the **PLU** or PLUs you wish to program in one of the following ways:
   - Press a **PLU** key on the keyboard or scan the item.

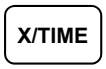


   - Press the **first PLU** key that is to be deleted and press the **last PLU** key.

   - Enter the number of the **PLU** you wish to delete and press the **PLU** function key.

   - Enter the number of the **First PLU** in a range you wish to delete and press the **PLU** key. Enter the number of the **Last PLU** in the range; press the **PLU** key.

4. Press **X/TIME** key.

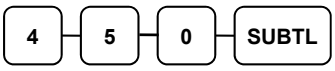


5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

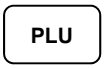
Program 450 – PLU Mix and Match Programming

If a PLU is eligible for a mix and match discount, enter the mix and match table for the PLU here. See "Mix and Match Discount Programming" on page 182 for more information.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **4 5 0**, press the **SUBTL** key.

3. Select the **PLU** or PLUs you wish to program in one of the following ways:
   - Press a PLU key on the keyboard or scan the item.

   - Enter the number of the PLU (up to 15 digits) you wish to program and press the PLU function key.

4. Enter the number of the Mix & Match Table **(1-99)** and press the **X/TIME** key.

5. To program additional PLUs repeat from step 3 or press the **CASH** key to finalize the program.

System Option Programming

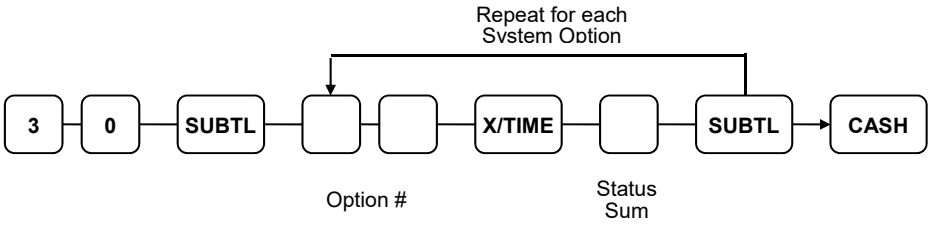
Refer to the "System Option Table" to review the system options. Read each option carefully to determine if you wish to make any changes.

NOTE: Typical selections are set as default. After clearing memory all options settings are automatically set to the default setting, therefore there is no need to program unless you are setting an option other than the default.

Programming a System Option

1. Turn the control lock to the **PGM** position.
2. Enter **3 0**, press the **SUBTL** key.
3. Enter a system option address number and press the **X/TIME** key.
4. Enter the number representing the status you have selected, or if there is more than one decision to be made in an address, add the values representing your choices for each decision and enter the sum. Press the **SUBTL** key.
5. Repeat from step 3 for each system option you wish to change.
6. Press the **CASH** key to end system option programming.

System Option Flowchart



System Option Table

Note: Default Values are shown in bold type.

Address	SYSTEM OPTION		VALUE	=	SUM
1	Beeper is active?		**Yes = 0** No = 1		
	Reserved		0		
	% Function does not affect Net Sales		Yes = 4 **No = 0**		
2	Clerk sign on method is:	**Direct entry =**	**0**		
		Code entry =	1		
3	Clerks are:	Pop-up =	1		
		Stay down =	**0**		
4	Enforce closed drawer for register operation?		**Yes = 0** No = 1		
	Open drawer alarm is active?		Yes = 2 **No = 0**		
5	The number of seconds before the open drawer warning tone sounds *(default is 30 seconds)*.		1-99		
6	Allow the post tender function?		Yes = 1 **No = 0**		
	Drawer is opened on post tender?		**Yes = 0** No = 2		
	Allow multiple receipts?		Yes = 4 **No = 0**		
7	Cash declaration is compulsory before reports may be taken?		Yes = 1 **No = 0**		
	Allow negative balance sales in the X control lock position only?		Yes = 2 **No = 0**		
8	Allow zero balance sales in the X control lock position only?		Yes = 1 **No = 0**		
	Reset transaction No. on Z report. (Consecutive number is reset after a financial report?)		Yes = 2 **No = 0**		
9	Grand total is reset after a Z Financial report?		Yes = 1 **No = 0**		
	Cash drawer will open when reports are run?		**Yes = 0** No = 2		
	Open drawer during training mode?		Yes = 0 No = 4		
10	Decimal place: (0,1,2,3) ***default=2***		0-3		
11	Date format is:	**MMDDYY =**	**0**		
		DDMMYY =	1		
		YYMMDD =	2		
12	Percentage and Tax calculations will:	**Round up at 0.005 =**	**0**		
		Always round up =	1		
		Always round down =	2		
13	Split price calculations will:	**Round up at 0.005 =**	**0**		
		Always round up =	1		
		Always round down =	2		

Address	SYSTEM OPTION		VALUE	=	SUM
14	Eat-in/Take-out/Drive Thru procedure compulsory before tendering is allowed?		Yes = 1 **No = 0**		
	Hash is:	**Normal =**	**0**		
		Non-add =	2		
15	Reset the Financial Report Z counter after a Z1 Financial report?		Yes = 1 **No = 0**		
	Reset the Time report Z counter after a Z1 Time report?		Yes = 2 **No = 0**		
	Reset the PLU report Z counter after a Z1 PLU report?		Yes = 4 **No = 0**		
16	Reset the Clerk Report Z counter after a Z1 Clerk report?		Yes = 1 **No = 0**		
	Reset the Group Report Z counter after a Z1 Group report?		Yes = 2 **No = 0**		
17	Reset the Daily Sales Report Z counter after a Z2 Daily sales report?		Yes = 1 **No = 0**		
	Paper sensor is enabled?		**Yes = 0** No = 2		
	Split pricing is deactivated?		Yes = 4 **No = 0**		
18	Enable direct multiplication?		Yes = 1 **No = 0**		
	Stock counter programming:	Adds to current level	2		
		Replaces current level	**0**		
19	Global Entry Limit: ***(default = 0)*** is no limit		0-14		
20	Allow multiplication by more than one digit?		Yes = 1 **No = 0**		
	Tender Validation amount is:	Amount tendered =	2		
		Amount of sale =	**0**		
21	Display “add” price of linked item?		Yes = 1 **No = 0**		
	Allow sale when stock reaches “0”?		**Yes = 0** No = 2		
	Allow Canadian round on subtotal?		Yes = 4 **No = 0**		
22	Allow Canadian round on cash?		Yes = 1 **No = 0**		
	Allow Z stock report?		Yes = 0 **No = 2**		
23	Training mode	Enter =	1		
		Exit =	**0**		
24	Enable Electronic Journal?		Yes = 1 **No = 0**		
	Prompt Operator when Electronic Journal is full?		Yes = 2 **No = 0**		
	Stop Operations when Electronic Journal is full?		Yes = 4 **No = 0**		

Address	SYSTEM OPTION		VALUE	=	SUM
25	Send only Negative Entries to Electronic Journal?		Yes = 1 **No = 0**		
	Send Reset Report to Electronic Journal?		Yes = 2 **No = 0**		
	Disable Cash Declaration?		Yes = 4 **No = 0**		
26		**Table Management =** Clerk Interrupt =	**0** 1		
	VAT Shift affects the whole receipt?		Yes = 2 **No = 0**		
27	Disable Level Keys?	Level 1 =	Yes = 1 **No = 0**		
		Level 2 =	Yes = 2 **No = 0**		
28	Price level is:	**Pop-up after item =**	**0**		
		Pop-up after sale =	1		
		Stay-down =	2		
29	Modifier is:	**Pop-up after item =**	**0**		
		Pop-up after sale =	1		
		Stay-down =	2		
30	Store Name (8-characters)				
31	Program descriptors with overlay?		Yes = 1 **No = 0**		
	Use Journal Take-up Spool? (ER-940/945 only)		Yes = 2 **No = 0**		
	Use MCR		Yes = 4 **No = 0**		
32	MSR Track Use:	Track 1 & 2 = Track 3 & 4 =	**0** 1		
33	Not Used		**0**		
	Not Used		**0**		
	Mix & Match is taxable?		Yes = 4 **No = 0**		
34	Price embedded barcode type:	**Disabled =** Type 1 = Type 3 = Type 4 = Type 7 =	**0** 1 3 4 7		
35	Language?	**English =** Spanish = French =	**0** 1 2		

Address	SYSTEM OPTION		VALUE	=	SUM
36	Require manager to open/close checks?		Yes = 1 **No = 0**		
	Enable charge posting functions?		Yes = 2 **No = 0**		
	Send Reports to Remote Printer? (sends to printer with lowest port#)		Yes = 4 **No = 0**		
37	MSR Connected to:	**Datatran =** PDC = Register =	**0** 1 2		
38	Pin pad connected to device on port #:		0-4		
39	Pin Pad Type:	**DUKPT =** ROTATE =	**1** 0		
	EFT Draft is:	**DATATRAN =** FINE DINING = (prints tip line)	**Yes = 0** No = 2		
40	Disable Not-Found PLU feature? (Requires v01.019 or later)		Yes = 1 **No = 0**		
41	Reserved For Puerto Rico Only		Yes = 1 **No = 0**		
42	Receipt Buffer Memory Use: (Option available at v1.027 or later) **A maximum of 200 lines may be entered per transaction =** Entry of more than 200 Lines is allowed, however a buffered receipt is not itemized =		 **0** 1		
***43**	PDC New Protocol?		Yes = 1 **No = 0**		
	Cardholder Name?		Yes = 1 **No = 0**		
	"test" Clerk ID?		Yes = 1 **No = 0**		

*** System option 43** requires v01.072 or later. These options are used only with EMV credit processing.

System Options - Reference Information

#	Option	Description
2	Clerk sign on method is Direct Entry or Code Entry	For direct entry, enter the numeric clerk code and press the CLERK key. For code entry, press the CLERK key, enter the clerk code and press the CLERK key.
6	Allow the post tender function	Select Y to allow re-tendering should a second change calculation become necessary. Re-enter the tendered amount and press the CASH key to show the new change computation.
14	Hash is NORMAL or NON-ADD	Normal Hash adds to all totals exempt the gross and net sales totals on the financial report. Non-add Hash does not add to any totals, exempt the HASH total on the financial report.
17	Split Pricing is deactivated?	If N, both multiplication and split pricing calculations can be done with the X/TIME key. If Y, only multiplication can be done with the X/TIME key.
18	Enable Direct Multiplication	If Y, you can multiply preset items by simply entering the quantity, then pressing the preset PLU key.
21	Display add price of linked item?	When Y, the customer display shows a total of the item and linked item. For example, if PLU is $1.00 and is linked to PLU2, which is $0.25, the display will show $1.25.
21 22	Allow Canadian round on subtotal? Allow Canadian round on cash?	Canadian rounding rounds as below: .00 - .02 = .00 .03 - .07 = .05 .08 - .09 = .10 Note: At software version 1.036, the flag was changed to read "Canadian" rather than "Swedish" rounding. The rounding rules are the same. For penniless Canadian transactions, see "SUBTOTAL – Function Key Options" on page 176 to display the rounded subtotal.
26	Table Management, or Clerk Interrupt	Clerk Interrupt allows you to temporarily suspend an incomplete transaction by signing on a new clerk. The new clerk can begin a new transaction with the first transaction temporarily suspended. The original transaction can be recalled for completion by signing on the original clerk. You cannot use check/table tracking or charge posting when the clerk interrupt system is implemented. Using the clerk interrupt feature requires allocation of at least 2 guest checks and sufficient soft check lines to support the interrupted transaction (i.e. if 20 soft check lines are allocated, a transaction with up to 20 lines can be interrupted.)

#	Option	Description
29	Modifier is: Pop-up after item? Pop-up after sale? Stay-down?	A MODIFIER key alters the next PLU registered, either by changing the code number of the PLU so that a different item is registered, or by adding the modifier descriptor and not changing the code of the subsequent PLU. If you press a modifier key, you have the option of the modifier applying only to the next item (0), having the same modifier apply to any subsequent item registered in the same transaction (1), or having the same modifier apply to any subsequent item on any subsequent transaction (2).
30	Store Name	This is an 8-character alpha/numeric field. Entry is made by alpha overlay or descriptor code, depending upon the method selected. You must set a store name when using an SD card to save/load programs or reports. The name set here must match the name of the folder on the SD card, for example: SD:/ER900/PGMBACK/NAME for program files or SD:/ER900/RPTBACK/NAME for report files. Report files can be viewed using the optional PC Utility. Consult with your SAM4s dealer for details.
31	Program descriptors with overlay/	Defaults to Yes for flat keyboard models; No for raised key models.
34	Price Embedded barcode type	If price embedded barcodes are scanned, choose, type 1, 3, 4, or 7. Definition of types is shown in the chart below.

<table>
<tr><th>#</th><th>Option</th><th>Description</th></tr>
<tr><td></td><td colspan="2"> 

<table>
<tr><th>Barcode Format Number</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th><th>11</th><th>12</th><th>13</th></tr>
<tr><td>1</td><td>D1</td><td>D2</td><td>I1</td><td>I2</td><td>I3</td><td>I4</td><td>I5</td><td>S</td><td>P1</td><td>P2</td><td>P3</td><td>P4</td><td>C</td></tr>
<tr><td>2</td><td>D1</td><td>D2</td><td>I1</td><td>I2</td><td>I3</td><td>S</td><td>P1</td><td>P2</td><td>P3</td><td>P4</td><td>P5</td><td>P6</td><td>C</td></tr>
<tr><td>3</td><td>D1</td><td>D2</td><td>I1</td><td>I2</td><td>I3</td><td>I4</td><td>I5</td><td>I6</td><td>P1</td><td>P2</td><td>P3</td><td>P4</td><td>C</td></tr>
<tr><td>4</td><td>D1</td><td>D2</td><td>I1</td><td>I2</td><td>I3</td><td>I4</td><td>I5</td><td>P1</td><td>P2</td><td>P3</td><td>P4</td><td>P5</td><td>C</td></tr>
<tr><td>5</td><td>D1</td><td>D2</td><td>I1</td><td>I2</td><td>I3</td><td>I4</td><td>P1</td><td>P2</td><td>P3</td><td>P4</td><td>P5</td><td>P6</td><td>C</td></tr>
<tr><td>6</td><td>D1</td><td>D2</td><td>I1</td><td>I2</td><td>I3</td><td>P1</td><td>P2</td><td>P3</td><td>P4</td><td>P5</td><td>P6</td><td>P7</td><td>C</td></tr>
<tr><td>7</td><td>D1</td><td>D2</td><td>I1</td><td>I2</td><td>I3</td><td>I4</td><td>I5</td><td>W1</td><td>W2</td><td>W3</td><td>W4</td><td>W5</td><td>C</td></tr>
<tr><td colspan="14">Barcode Definition (supports UPC, EAN, JAN, & KAN Codes)</td></tr>
</table>
D1, D2 = Department Number (always 02)
I1, I2, I3, I4, I5, I6 = Item Code
S = Check Sum Digit for Price
P1, P2, P3, P4, P5, P6, P7 = Price
W1, W2, W3, W4, W5 = Weight
C = Check Sum Digit for All Characters</td></tr>
<tr><td>36</td><td>Require manager to open/close checks?
Enable charge posting functions?
Send reports to remote printer?</td><td>When Y, you must turn the key lock to the MGR position if you wish to open a new check or close a check. This option will usually be Y when a charge posting system is implemented and you do not wish a clerk to inadvertently open a new account.
When charge posting is enabled, the FINALIZE, PAYMENT, and PAY TENDER keys are enabled.
Sends to printer with lowest port #.</td></tr>
<tr><td>42</td><td>Buffer Memory Use</td><td>When No, a maximum of 200 lines may be entered per transaction.
When YES, Entry of more than 200 Lines is allowed, however, a buffered receipt is not itemized. =</td></tr>
<tr><td>43</td><td>Use PDC new protocol?
Cardholder name?
“test” clerk ID?</td><td>Only set to YES when using EMV.
Set to YES to print cardholder name on drafts when EMV is used.
Always set “test clerk ID” to NO.</td></tr>
</table>

Print Option Programming

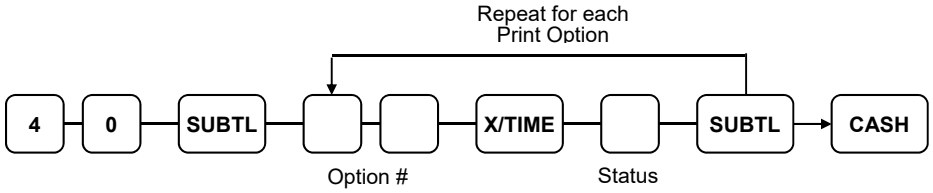
Refer to the "Print Option Table" to review the print options. Read each option carefully to determine if you wish to make any changes.

NOTE: Typical selections are set as default. After clearing memory all options settings are automatically set to the default setting, therefore there is no need to program unless you are setting an option other than the default.

Programming a Print Option

1. Turn the control lock to the **PGM** position.
2. Enter **4 0**, press the **SUBTL** key.
3. Enter a print option address and press the **X/TIME** key.
4. Enter the number representing the status you have selected, or if there is more than one decision to be made in an address, add the values representing your choices for each decision and enter the sum. Press the **SUBTL** key.
5. Repeat from step 3 for each print option you wish to change.
6. Press the **CASH** key to end print option programming.

Print Option Flowchart



Print Option Table

Note: Default Values are shown in bold type.

Address	PRINT OPTION	VALUE	=	SUM
1	Print media total on clerk report?	Yes = 1 **No = 0**		
	Print tax symbol?	**Yes = 0** No = 2		
2	Void Mode/Return totals will print on the Financial report?	**Yes = 0** No = 1		
	Audaction total will print on the Financial report?	Yes = 2 **No = 0**		
3	Skip media totals with zero activity on the Financial report?	**Yes = 0** No = 1		
	Skip media totals with zero activity on the Clerk report?	**Yes = 0** No = 2		
	Print Clerk report at the end of the Financial report?	Yes = 4 **No = 0**		
4	Print PLU sale item number?	Yes = 1 **No = 0**		
	Print PLU with zero totals on report?	Yes = 2 **No = 0**		
	Subtotal is printed when the SUBTL key is pressed?	Yes = 4 **No = 0**		
5	Print percentage of sales on the PLU report?	Yes = 1 **No = 0**		
	Print consecutive number counter on receipt?	**Yes = 0** No = 2		
6	Print date on receipt?	**Yes = 0** No = 1		
	Print time on receipt?	**Yes = 0** No = 2		
	Print machine number on receipt?	**Yes = 0** No = 4		
7	Print clerk name on receipt?	**Yes = 0** No = 1		
	Print Z counter on reports?	**Yes = 0** No = 2		
	Print tax charged for last serviced items	Yes = 4 **No = 0**		
8	Home Currency symbol	$ (Default)		
9	Print receipt when sign on/off?	**Yes = 0** No = 1		
	Print Grand total on the X Financial report?	**Yes = 0** No = 2		
	Print Grand total on the Z Financial report?	**Yes = 0** No = 4		

Address	PRINT OPTION		VALUE	=	SUM
10	Print Gross total on the X Financial report?		**Yes = 0** No = 1		
	Print Gross total on the Z Financial report?		**Yes = 0** No = 2		
11	Print the subtotal without tax on the receipt?		Yes = 1 **No = 0**		
	Tax amount to print on receipt is:	Combine =	2		
		Itemize =	**0**		
12	Print the tax amount on receipt?		**Yes = 0** No = 1		
	Print taxable totals?		Yes = 2 **No = 0**		
	Print the tax rate?		Yes = 4 **No = 0**		
13	Print a breakdown of the VAT eligible sale?		Yes = 1 **No = 0**		
	Print training mode message on the receipt during training mode operations?		Yes = 2 **No = 0**		
14	Currency Symbol:	CONV. #1 =	.		
15		CONV. #2 =	.		
16		CONV. #3 =	.		
17		CONV. #4 =	.		
18	Print the KP order number on the register receipt?		**Yes = 0** No = 1		
	Print the item's price on the kitchen printer requisition?		Yes = 2 **No = 0**		
19	Print registrations in void mode on the kitchen printer requisition?		**Yes = 0** No = 1		
	Print registrations in training mode on the kitchen printer requisition?		Yes = 2 **No = 0**		
20	Combine like items on the kitchen printer?		**Yes = 0** No = 1		
	Consolidation of like items on check track?		**Yes = 0** No = 2		
	Chooses volume unit when the PLU is gallonage.	**Gallons =**	**0**		
		Liters =	4		
21	Print preamble message on receipt?		**Yes = 0** No = 1		
	Print postamble message on receipt?		**Yes = 0** No = 2		
22	Print preamble message on the guest check?		Yes = 1 **No = 0**		
	Print postamble message on the guest check?		Yes = 2 **No = 0**		
23	Print average items per customer on the Financial report?		**Yes = 0** No = 1		
	Print average sales per customer on the Financial report?		**Yes = 0** No = 2		

Address	PRINT OPTION		VALUE	=	SUM
24	Allow a second receipt for the same transaction?		Yes = 1 **No = 0**		
	Priority print by group on the kitchen printer?		Yes = 2 **No = 0**		
	Print the PLU number and descriptor on the receipt?		Yes = 4 **No = 0**		
25	Print when polling reports?		**Yes = 0** No = 1		
	Print PLU# on PLU Report?		Yes = 2 **No = 0**		
	Grand total is:	Net sale =	4		
		Gross sale =	**0**		
26	Adjustable Cut Position ***(Default = 40)***		(0-70)		
27	Send order to the kitchen printer when the SUBTL key is pressed?		Yes = 1 **No = 0**		
	Print date on hard check?		Yes = 2 **No = 0**		
28	Print custom pre graphic logo on receipt?		Yes = 1 **No = 0**		
	Print custom post graphic logo on receipt?		Yes = 2 **No = 0**		
29	Print custom pre graphic logo on guest check?		Yes = 1 **No = 0**		
	Print custom post-graphic logo on guest check?		Yes = 2 **No = 0**		
	Print on Kitchen Printer by Item? (available in version 1.049 or later)		Yes = 4 **No = 0**		
30	Not Used		**0**		
31	Number of pre-feeding lines on receipt. ***(Default=0)***		**0**-5		
32	Number of post-feeding lines on receipt. ***(Default=0)***		**0**-5		
33	Print in high density?		Yes = 1 No = 0		
	Journal is off?		Yes = 2 **No = 0**		
	Journal is small?		Yes = 2 **No = 0**		
34	Print EJ from:	Oldest = **Newest =**	1 **0**		
	Mask credit card number on all EFT drafts?		**Yes = 0** No = 2		
	Automatic line-find is disabled when using an optional slip printer and hard check system (available in version 1.019 or later)		Yes = 4 **No = 0**		
35	Number of Datatran Receipt Copies ***(Default = 1)***		**0**-99		
36	No signature required if EFT transaction is under xxxx (i.e. if 2000 is set here, no signature is required on transactions under $20.00.)		0000		

Address	PRINT OPTION		VALUE	=	SUM
37	Quick journal review (R-Mode/10 Subtotal) prints last xx (0-99) lines of electronic journal.		0-99		
38	Print Preamble image number on receipt?		**0**		
39	Print Postamble image number on receipt?		**0**		
40	Print Preamble image number on guest check?		**0**		
41	Print Postamble image number on guest check?		**0**		
42	Print Electronic Journal to remote printer connected to port (0-4). *(Default = 0; print on internal printer.)* (Available at v1.026 or later)		**0**-4		
43	Print Checks Paid on serviced receipt. (Available at v1.053 or later)		Yes = 1 **No = 0**		
***44**	Print PLU report before Financial report. (Available at v1.053 or later)		Yes = 1 **No = 0**		
***45**	Print Returns and Voids on Financial (Available at v1.072 or later)		Yes = 1 **No = 0**		
***46**	Print date of last Z Report on Z Report. (Available at v1.072 or later)		Yes = 1 **No = 0**		
47	Print on Journal Printer	Preamble	Yes = 1 **No = 0**		
		Postamble	Yes = 2 **No = 0**		

Print Options - Reference Information

#	Option	Description
1	Print media totals on clerk report	Select Yes to print media totals for each clerk, thus allowing clerk cash drawer accountability.
	Print tax symbol	Select No to remove the tax symbol (i.e."T1") from the print and display.
2	Void Mode/Return totals will print on the Financial report?	Default setting is Yes to print these totals on reports. Also see print option 44 "Print Returns and Voids on Financial"
	Audaction total will print on the Financial report?	Audaction is a sale that ends as a negative total; i.e. a $5 sale that had been discounted by $10 would end as a negative $5 sale.
4	Print PLU sale item number?	If Yes, each receipt will print the total number of PLU items sold in the transaction.
5	Print % of sales on PLU report?	The register can calculate the percentage of sales represented by each PLU. Select Yes if you wish to print this percentage on the PLU report.
8	Home currency symbol	Users outside of the USA can designate a different currency symbol. To select a different symbol, type descriptors on the alpha keyboard overlay or enter three-digit alpha character codes. To enter a descriptor by three-digit alpha character codes you must select No in system option #31 (See "System Option Programming" on page 138).
9	Print receipt when sign on/off?	Select No if you do not wish to print a receipt when signing on or off a clerk.
11	Print subtotal without tax on the receipt?	If you hand-write invoices or credit card slips, you may find it useful to print the merchandise subtotal. Select Yes if you wish to print the subtotal without tax on the receipt.
	Tax amount on receipt is: Combine or Itemize	Select "2" if you are calculating and reporting more than one sales tax rate separately and you wish to print just the total of multiple taxes rather than itemize each tax on the receipt.
13	Print a breakdown of the VAT eligible sale?	If Yes, a breakdown of the VAT eligible sale will print the net amount and the VAT amount.

#	Option	Description
15 16 17 18	Currency symbol: conv.#1 conv.#2 conv.#3 conv.#4	If you are using the currency conversion feature, you can select the appropriate symbol for each foreign currency you are accepting. To select a different symbol, type descriptors on the alpha keyboard overlay or enter three-digit alpha character codes. To enter a descriptor by three-digit alpha character codes you must select "No" in system option #31 (See "System Option Programming" on page 138).
20	Combine like items on the kitchen printer?	If two of the same items are registered in the same transaction, you can choose the format on the kitchen requisition. For example: if YES, "2 HAMBURGERS"; if NO, "1 HAMBURGER" and "1 HAMBURGER".
	Combine like items on check track?	Consolidation of like items can be selected for soft guest check printing. For example, if three rounds of drinks are served, the check will print "3 TAP BEER" rather than "1 TAP BEER" three times.
23	Print average items per customer on the Financial report? Print average sales per customer on the Financial report?	Choose whether to print the average items per customer (PLU sales counter/Net sales counter) or the average sales per customer (Net Sales/Net Sales counter).
24	Priority print by group on the kitchen printer?	If Yes, the order in which items appear on a kitchen requisition is determined by the group to which the item is assigned, i.e. items reported to group 1 will print before items reported to group 2.
36	No signature required if EFT transaction is under xxxx (i.e. if 2000 is set here, no signature is required on transactions under $20.00.)	This feature will not work when System Option 43 "PDC New Protocol" = YES
38 to 41	Print Preamble/Postamble image number on receipt or guest check?	Leave value here at 0 when using a custom image and set address 28 or 29 as appropriate. Set to the following values to use the 20 preloaded stock images: 1 - SAM4s Logo 2 - "Your Receipt/Thank You" 3 - "Call Again" 4 - "Thank you for your custom" 5 - "Have a nice day" 6 - "Seasons' Greetings" 7 - "Happy New Year" 8 - Fireworks image 9 - "Mother's Day" 10 - "Father's Day"

#	Option	Description
		11 - “Valentine’s Day” 12 - “Happy Halloween” 13 - “Back to School” 14 - “Happy Easter” 15 - “Thank You” 16 - “Please Call Again” 17 - Sale 18 - “Thank You” 19 - New Year 20 - “Thank you for shopping with us”
43	Print Checks Paid on Serviced report	Default = Y, when set, the Checks Paid total is printed on the check when finalized.
*44	Print Voids and Returns on Financial This option was inserted here at print option 44 beginning with v1.072. (In versions prior to v1.072, this option was Print PLU Report before Financial report which is now print option 45.)	If this option = Y, the Tax Credit will print on the Financial separate by Cash and Charge. Cash Returns (Total of Cash Returns). Credit Tax Cash (Amount of Tax [Tax1-Tax4] returned on Cash Sales). Cash Void Mode (Total of Cash Voids). CHG Returns (Total of Charge 1-8 returns). Credit Tax CHG (Total of Tax [Tax 1-4] returned on Charge1-8 returns). CHG Void Mode (Total of Charge 1-8 voids).
*45	Print PLU report before Financial report (This option was print option 44 in versions previous to v1.072)	With this option set, the PLU report will print before the Financial report when Financial reports are initiated.
*46	Print date of last Z report on Z reports (This option was print option 45 in versions previous to v1.072)	When a Z report is initiated, the date of the last time the report was run is printed on the report.

Function Key Programming

Three programs are used to program function keys:

- ***Program 70*** - is used to set individual options for each function key
- ***Program 80*** - is used to program an 18-character alphanumeric descriptor. In the case of the #/No Sale key, provision is made to program a separate descriptor for the # and No Sale functions.
- ***Program 90*** - is used to set a high amount limit (HALO). In the case of percentage keys (%1-%5) the percentage rate or amount is programmed; In the case of currency conversion keys, the conversion rate is programmed.

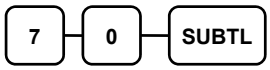
In this chapter you will find:

- General instructions for programs 70, 80 and 90.
- Specific Program 70 option programming instructions for each function key. *(Options vary by function key.)*

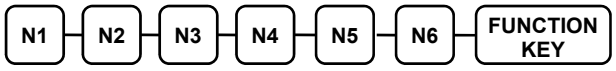
Program 70 - Function Key Options

Use Program 70 to set options for function keys. Because of the differences inherent in function keys, individual options will be different. See the specific instructions for each key in this chapter to find the options for each key.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **7 0**, press the **SUBTL** key.



3. Enter the values for the option digit or digits. Depending on the function key you are programming, you may enter up to six digits **N1** through **N6**. Determine the values for **N1** through **N6** by referring to the specific function key information that follows. (You do not need to enter preceding zeros. For example, if the function key offers six digits, N1 through N6 and you are only selecting a value for N6, just enter the value for N6.) Press the function key you wish to program.



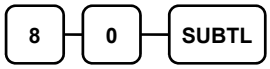
4. To program additional function keys, repeat from step 3, or press the **CASH** key to finalize the program.

Program 80 - Function Key Descriptor

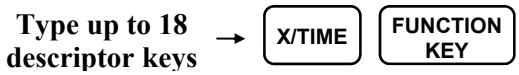
Program descriptors by typing descriptors on the alpha keyboard overlay or by entering three-digit alpha character codes. To enter descriptors by entering the three-digit alpha character codes you must set system option #31 (See "System Option programming" on page 138).

Note: You can program descriptors up to 18 characters, however only the first 10 will appear on the display.

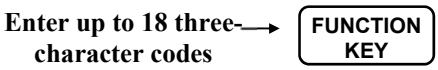
1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **8 0**, press the **SUBTL** key.



3. If you are programming using an alpha keyboard overlay, type up to 18 descriptors on the overlay, press the **X/TIME** key and then press the function key you are programming. (Note: As you are entering descriptors only the last 16 descriptors will display.)



   If you are programming using descriptor codes, enter up to 18 three-character codes and press the function key you are programming key. (See "Descriptor Code Chart" on page 134.)

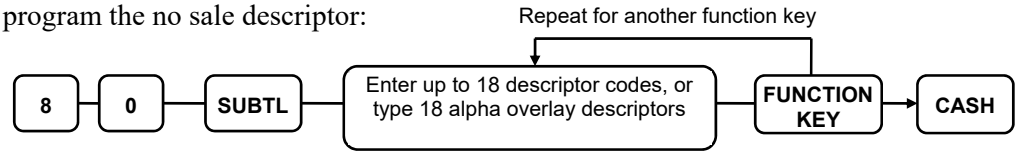


4. To program additional function keys, repeat from step 3, or press the **CASH** key to finalize the program.

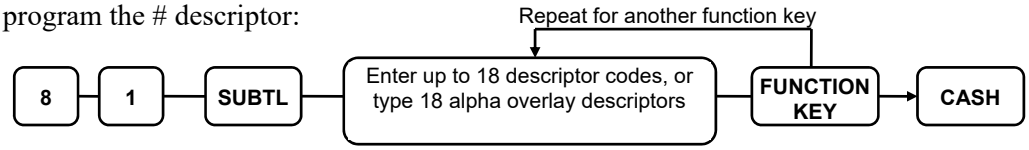
Descriptor Programs for the #/No Sale Key - Programs 80 & 81

Since two distinct functions, # entry and no sale, reside on the same key, different programs are used to program each descriptor.

To program the no sale descriptor:



To program the # descriptor:

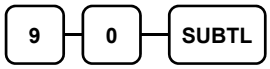


Program 90 - Function Key HALO

Use Program 90 to program a high amount lock out (HALO) for a function key. Only specific keys require this program. For example, you can set a HALO for the CASH, CHECK or CHARGE keys. Refer to the specific function key programming information in this chapter to determine when the HALO option is available.

Note: An 8-digit HALO has a maximum entry of $500,000.00.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **9 0**, press the **SUBTL** key.

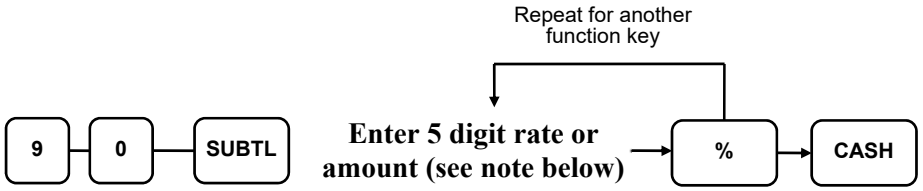


3. Enter a **HALO** of up to eight digits, (or "0" for no HALO). Press the function key on the keyboard you wish to program.

Enter 1-8 digit HALO

4. To program additional function keys, repeat from step 2, or press the **CASH** key to finalize the program.

Program 90 Instructions for %1-%5 Keys

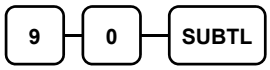


Note: If key is amount, enter 5-digit HALO, or 0 for no HALO. If key is percentage enter the percentage in a five-digit format, without the decimal (XX.XXX). For example: for 10%, enter 10000; for 5.55%, enter 05550; for 99.999%, enter 99999.

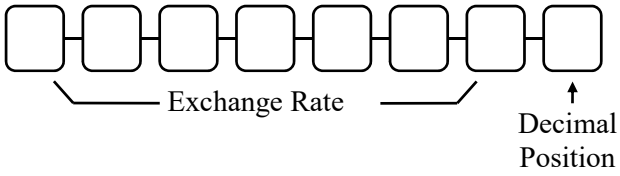
Instructions for Currency Conversion Rate - Program 90

Use Program 90 to program the exchange rate the currency conversion feature. You can select the appropriate symbol for each foreign currency you are accepting. Refer to the "Print Option Table" on page 147 for details.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **9 0**, press the **SUBTL** key.



3. Enter the **exchange rate** of up to 7 digits (do not enter the decimal point), and then enter a number from 0 to 7 to indicate the decimal position. See "
4. Currency Exchange Rate Programming Examples" below.



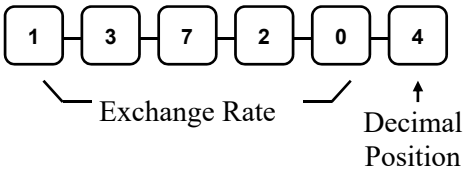
5. Press the **CURRENCY CONVERSION** function key on the keyboard you wish to program.

6. To program additional function keys, repeat from step 2, or press the **CASH** key to finalize the program.

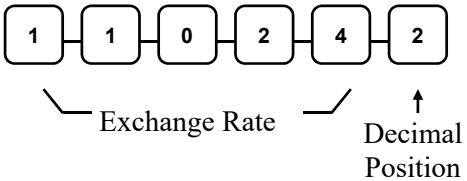
Currency Exchange Rate Programming Examples

Note: Foreign currency exchange rates may be stated as "foreign currency in dollars", or "dollars in foreign currency". Use the rate stated in "dollars in foreign currency" when you are programming this section.

The US dollar (home currency) is worth 1.3720 Canadian dollars (foreign currency).

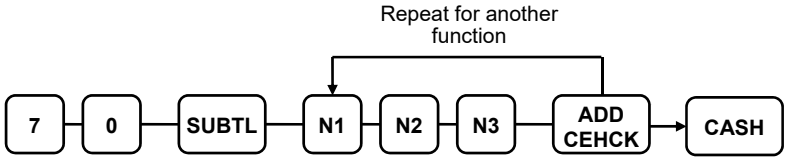


The US dollar (home currency) is worth 110.24 Japanese Yen (foreign currency).



ADD CHECK - Function Key Options

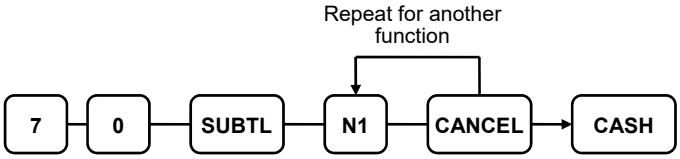
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Compulsory before tendering?	Yes = 2 No = 0		
	Advance the consecutive # when this function is used?	Yes = 0 No = 4		
N2	Delete the pre/postamble when this function is used?	Yes = 0 No = 1		
	Exempt tax 1?	Yes = 2 No = 0		
	Exempt tax 2?	Yes = 4 No = 0		
N3	Exempt tax 3?	Yes = 1 No = 0		
	Exempt tax 4?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		

CANCEL - Function Key Options

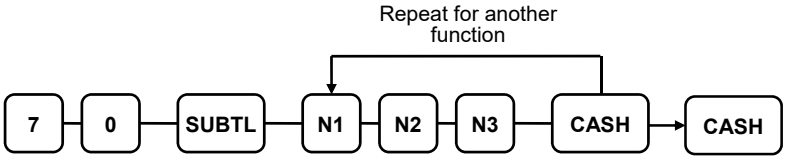
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Key is active in X control lock position only?	Yes = 2 No = 0		

CASH - Function Key Options

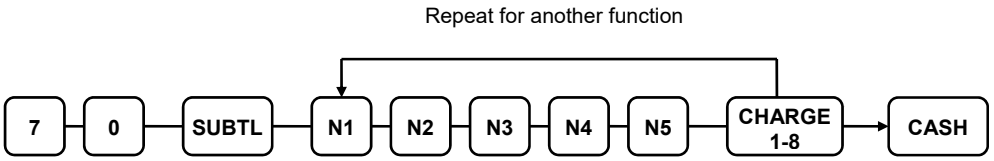
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Amount tender is compulsory?	Yes = 1 No = 0		
	Allow over tendering and under tendering in X control lock position only?	Yes = 2 No = 0		
	Disable under tendering?	Yes = 4 No = 0		
N2	Open cash drawer?	Yes = 0 No = 1		
	Exempt tax 1?	Yes = 2 No = 0		
	Exempt tax 2?	Yes = 4 No = 0		
N3	Exempt tax 3?	Yes = 1 No = 0		
	Exempt tax 4?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		

CHARGE 1-8 - Function Key Options

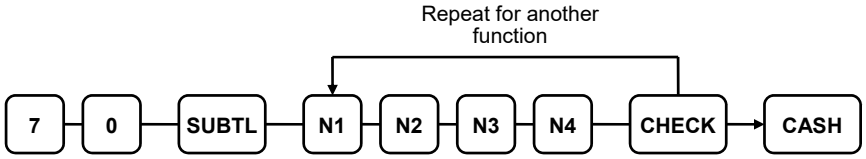
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Amount tender is compulsory?	Yes = 1 No = 0		
	Allow over tendering and under tendering in X control lock position only?	Yes = 2 No = 0		
	Disable under tendering?	Yes = 4 No = 0		
N2	Open cash drawer?	Yes = 0 No = 1		
	Allow over tendering?	Yes = 2 No = 0		
	Non-add # entry compulsory?	Yes = 4 No = 0		
N3	Exempt tax 1?	Yes = 1 No = 0		
	Exempt tax 2?	Yes = 2 No = 0		
	Exempt tax 3?	Yes = 4 No = 0		
N4	Exempt tax 4?	Yes = 1 No = 0		
	Validation compulsory?	Yes = 2 No = 0		
	Send to EFT	Yes = 4 No = 0		
N5	Select Transaction Type: (Only used when Send to EFT = Yes) (*Cash Benefit available at v1.030 and later)	Credit = 1 Debit = 2 Gift = 3 Gift NSF = 4 *Cash Benefit = 5		
N6	Show TIP on: (Available at v1.072 and later; Only used with EMV)	REG = 0 PINPAD = 1 Print Tip Line Only = 2		

CHECK - Function Key Options

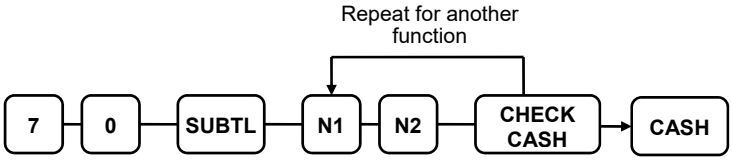
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Amount tender is compulsory?	Yes = 1 No = 0		
	Allow over tendering and under tendering in X control lock position only?	Yes = 2 No = 0		
	Disable under tendering?	Yes = 4 No = 0		
N2	Open cash drawer?	Yes = 0 No = 1		
	Exempt tax 1?	Yes = 2 No = 0		
	Exempt tax 2?	Yes = 4 No = 0		
N3	Exempt tax 3?	Yes = 1 No = 0		
	Exempt tax 4?	Yes = 2 No = 0		
N4	Check endorsement compulsory?	Yes = 1 No = 0		
	Validation is compulsory?	Yes = 2 No = 0		

CHECK CASHING - Function Key Options

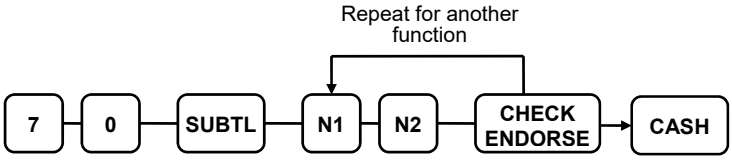
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Key is active in X control lock position only?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		
N2	Check Endorsement is compulsory?	Yes = 1 No = 0		

CHECK ENDORSEMENT - Function Key Options

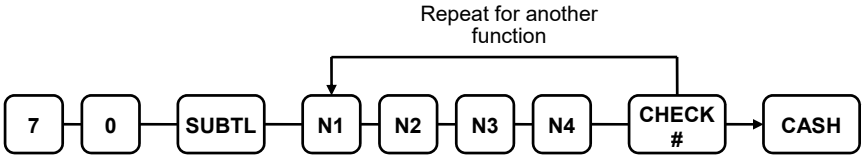
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Print the amount of the check and endorsement message?	Yes = 2 No = 0		
	Print date?	Yes = 4 No = 0		
N2	Print time?	Yes = 1 No = 0		
	Print clerk?	Yes = 2 No = 0		
	Print consecutive number?	Yes = 4 No = 0		

CHECK # - Function Key Options

Options - Program 70 (P-Mode)

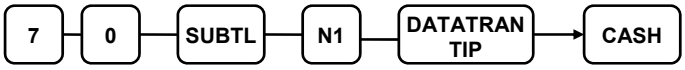


Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Before registering, begin a tracking number?	Yes = 2 No = 0		
	Opening clerk has exclusive access?	Yes = 4 No = 0		
N2	Check track # and balance will print on receipt?	Yes = 0 No = 1		
	Check track # and balance will print on remote?	Yes = 0 No = 2		
	Allow only one check per table?	Yes = 4 No = 0		
N3	Check# is automatically assigned by register?	Yes = 1 No = 0		
	PBAL key is used Drive thru recall key?	Yes = 2 No = 0		
N4	Length of Check (0-9)	0-9		

DATATRAN TIP - Function Key Options

Firmware versions supporting EMV provide a new DataTran TIP function key, key code #451, for Datatran tip entry in register mode. If your application is set for "Fine Dining" you must place this function on the keyboard. The key is programmable for manager control.

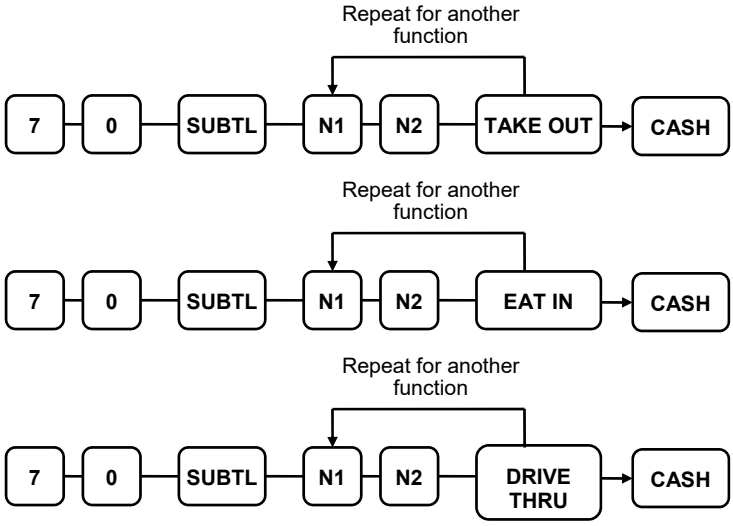
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Under manager control?	Yes = 1 No = 0		
	Send to EFT?	Yes = 2 No = 0		

DRIVE THRU / EAT IN / TAKE OUT - Function Key Options

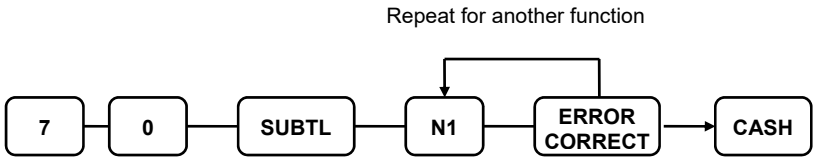
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Exempt tax 1?	Yes = 1 No = 0		
	Exempt tax 2?	Yes = 2 No = 0		
	Exempt tax 3?	Yes = 4 No = 0		
N2	Exempt tax 4?	Yes = 1 No = 0		
	Validation is compulsory?	Yes = 2 No = 0		

ERROR CORRECT - Function Key Options

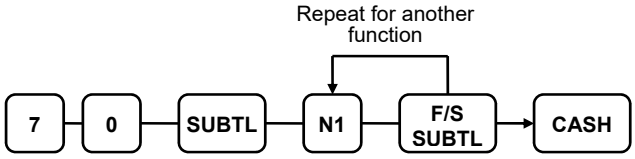
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Key is active in X control lock position only?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		

F/S Subtotal - Function Key Options

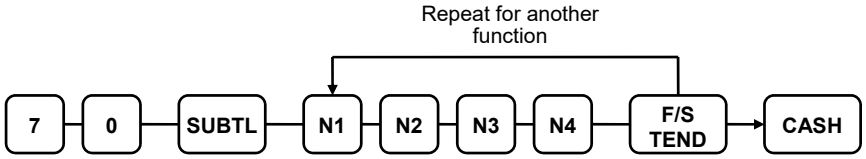
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		

F/S TEND - Function Key Options

Options - Program 70 (P-Mode)

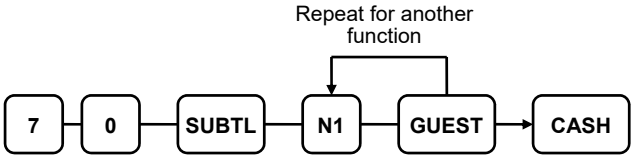


Address	OPTION	VALUE	=	SUM
N1	Exempt tax 1?	Yes = 1 No = 0		
	Exempt tax 2?	Yes = 2 No = 0		
	Exempt tax 3?	Yes = 4 No = 0		
N2	Exempt tax 4?	Yes = 1 No = 0		
	The tender is allowed in any amount?	Yes = 2 No = 0		
N3	Open cash drawer?	Yes = 0 No = 1		
	Validation is compulsory?	Yes = 2 No = 0		
	Allow over-tender? **	Yes = 4 No = 0		
N4	Send to EFT (added at firmware version 1.030)	Yes = 1 No = 0		

** The recommended setting for this flag is “No”. Since all food stamp payment are made by EBT, there is no situation where an over-tender would be allowed.

GUEST - Function Key Options

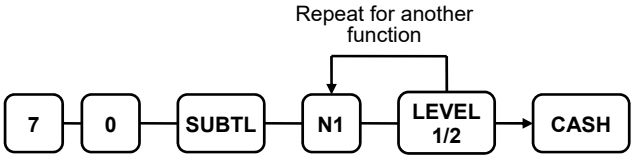
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Guest count entry compulsory when you use guest check operation?	Yes = 1 No = 0		
	Before registering any transaction, enter a guest count?	Yes = 2 No = 0		
	Print Guest # at the kitchen printer?	Yes = 4 No = 0		

Level 1 & Level 2 - Function Key Options

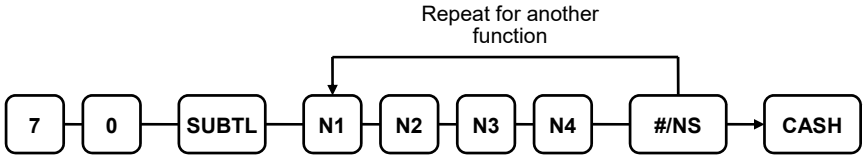
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Send Descriptor to Kitchen Printer.	Yes = 1 No = 0		
	Key is Under Manager Control.	Yes = 2 No = 0		

#/NS - Function Key Options

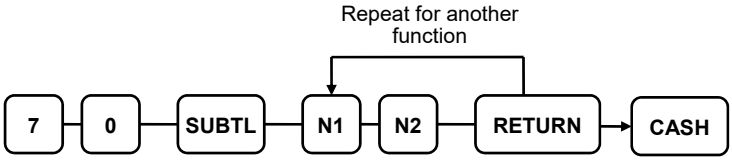
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	No Sale is inactive?	Yes = 1 No = 0		
	No Sale active in X control lock position only?	Yes = 2 No = 0		
	No Sale inactive after non-add # entry?	Yes = 4 No = 0		
N2	Enforce non-add # entry at start of sale?	Yes = 1 No = 0		
	Print when a NO SALE is performed?	Yes = 0 No = 2		
	Non-add # entries are prohibited?	Yes = 4 No = 0		
N3	Compulsory non-add entry must match number of digits set in the MAX DIGIT flag below?	Yes = 1 No = 0		
	Print non-add on guest check?	Yes = 2 No = 0		
N4	Enter maximum number of digits for non-add number entry. Zero (0) means no limit.	0-8		

MDSE RETURN - Function Key Options

Options - Program 70 (P-Mode)

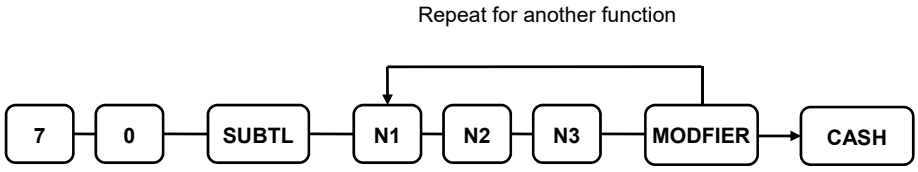


Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Key is active in X control lock position only?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		
N2	Y: Stay Down / N: Pop-up (added in v01.072)	Yes = 1 No = 0		

MODIFIER 1-5 - Function Key Options

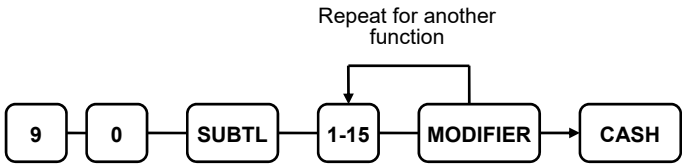
Note: See the "Modifier Key Programming Example" on the following page.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is active in X control lock position only?	Yes = 1 No = 0		
	Affect PLU number? (If No, only modifier descriptor is added.)	Yes = 2 No = 0		
N2	Print modifier descriptor on the guest check?	Yes = 1 No = 0		
	Print modifier descriptor on the receipt?	Yes = 2 No = 0		
N3	Value of affected digit (0-9)	0-9		

To set Affected Digit (1-15) of PLU#:



Modifier Key Programming Example

Selling soft drinks in different sizes is an excellent modifier application. For example, a restaurant sells Coke, Sprite and Root Beer in 3-sizes: small, medium & large.

If the PLU number assignment is:

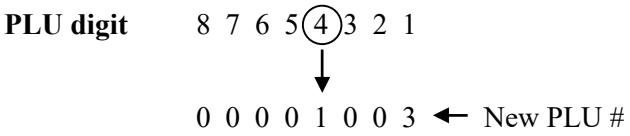
PLU #1 = Coke

PLU #2 = Sprite

PLU #3 = Root Beer

You may choose to modify the 4th digit of the PLU number with the digit 1 for small, 2 for medium and 3 for large. (Always count right-to-left to determine the PLU digit#.)

When the 4th digit is modified to a value of 1, and the Small modifier key is pressed before the Root Beer key, the registration of PLU #1003 results.



To complete the application, set modifier programming options as shown:

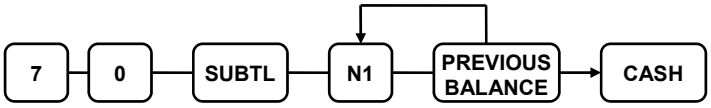
Modifier Name	Affected Digit (Program 90)	Value of Affected Digit (Program 70, option N3)
Small	4	1
Medium	4	2
Large	4	3

The following PLUs will be programmed:

PLU Number	Item
1001	Small Coke
1002	Small Sprite
1003	Small Root Beer
2001	Medium Coke
2002	Medium Sprite
2003	Medium Root Beer
3001	Large Coke
3002	Large Sprite
3003	Large Root Beer

PBAL - Function Key Options

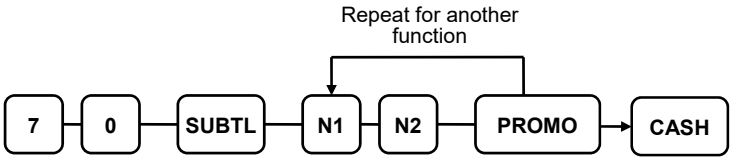
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
1	Previous balance may be entered at any time?	Yes = 1 No = 0		
	Previous balance required at the start of the sale?	Yes = 2 No = 0		

PROMO - Function Key Options

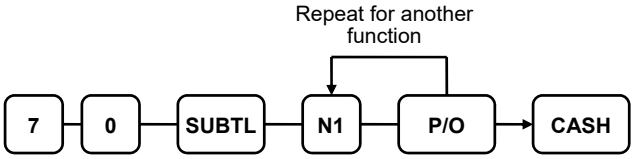
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Key is active in X control lock position only?	Yes = 2 No = 0		
	Exempt tax 1?	Yes = 4 No = 0		
N2	Exempt tax 2?	Yes = 1 No = 0		
	Exempt tax 3?	Yes = 2 No = 0		
	Exempt tax 4?	Yes = 4 No = 0		

PAID OUT 1-3 - Function Key Options

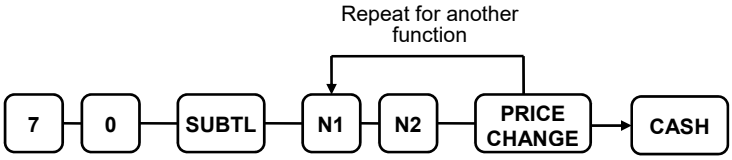
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Key is active in X control lock position only?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		

PRICE CHANGE - Function Key Options

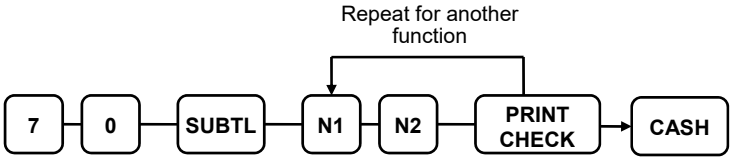
Options - Program 70 (P-Mode)



Address	OPTION		VALUE	=	SUM
N1	Permanently Change Item Price?	Never =	0		
		Always =	1		
		Prompt =	2		
N2	Key is inactive?		Yes = 1 No = 0		
	Key is active in X control lock position only?		Yes = 2 No = 0		

PRINT CHECK - Function Key Options

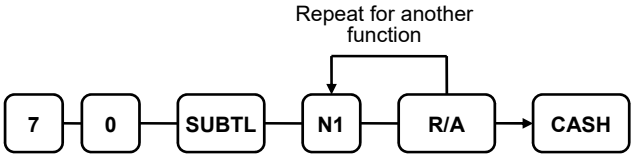
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Enter port. (Zero if the check will print on the receipt printer)	0-4		
N2	Automatically service the check?	Yes = 1 No = 0		
	Print the number of times the check has been printed on the on the guest check	Yes = 0 No = 2		

RECD ON ACCT 1-3 - Function Key Options

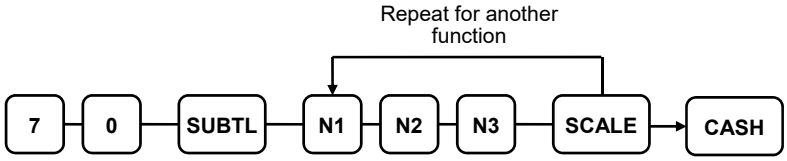
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Key is active in X control lock position only?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		

SCALE - Function Key Options

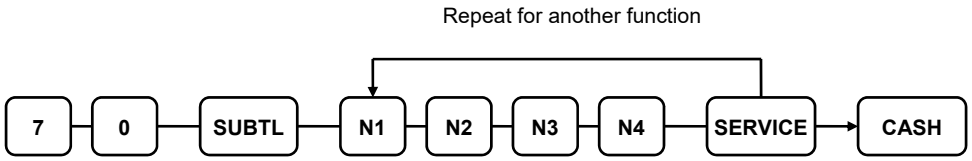
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Key is active in X control lock position only?	Yes = 2 No = 0		
	Allow manual entry of weight?	Yes = 4 No = 0		
N2	Subtract tare weight on the scale entry?	Yes = 1 No = 0		
	Print $ on Scale Price	Yes = 2 No = 0		
	Scalable items can be open price or scalable entry.	Yes = 4 No = 0		
N3	Weight symbol for manual entry is:	Lb = 0 Kg = 1 Oz = 2		

SERVICE - Function Key Options

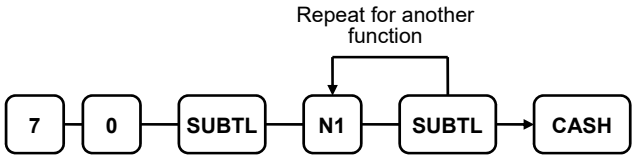
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Compulsory non-add number before this key is used?	Yes = 1 No = 0		
	Print on receipt?	Yes = 0 No = 2		
	Allow negative balance in X control lock position only?	Yes = 4 No = 0		
N2	Calculate tax 1?	Yes = 0 No = 1		
	Calculate tax 2?	Yes = 0 No = 2		
	Calculate tax 3?	Yes = 0 No = 4		
N3	Calculate tax 4?	Yes = 0 No = 1		
	Validation is compulsory?	Yes = 2 No = 0		
N4	Enter the port number if you are using a hard check system.	0-4		

SUBTOTAL - Function Key Options

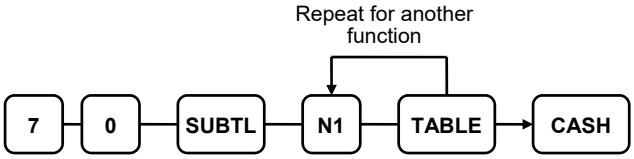
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Display Rounded Subtotal? (Available at software v1.036 or later)	Yes = 2 No = 0		

TABLE - Function Key Options

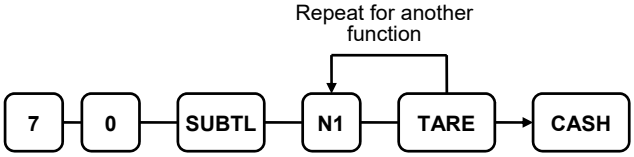
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Table number entry compulsory before opening a new check?	Yes = 1 No = 0		
	Table number entry compulsory for all sales?	Yes = 2 No = 0		
	Print table# at the remote printer?	Yes = 4 No = 0		

TARE - Function Key Options

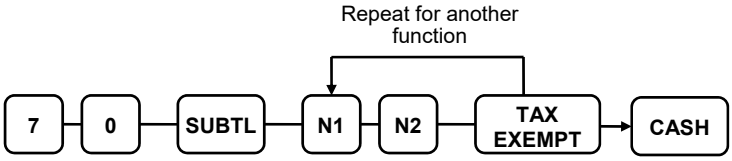
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Key is active in X control lock position only?	Yes = 2 No = 0		
	Using number 5 to manually enter a tare weight?	Yes = 4 No = 0		

TAX EXEMPT - Function Key Options

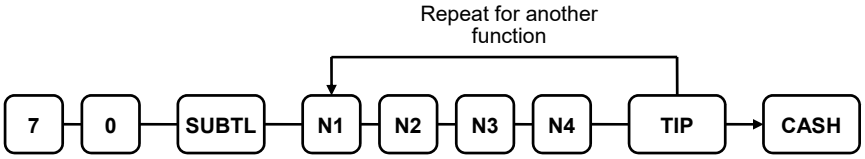
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Exempt tax 1?	Yes = 1 No = 0		
	Exempt tax 2?	Yes = 2 No = 0		
	Exempt tax 3?	Yes = 4 No = 0		
N2	Exempt tax 4?	Yes = 1 No = 0		
	Compulsory non-add number before this key is used?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		

TIP - Function Key Options

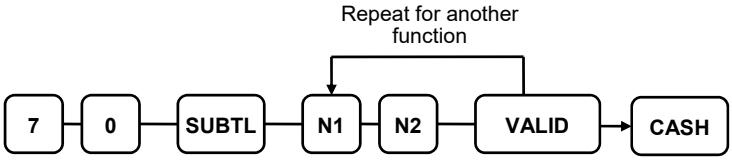
Options - Program 70 (P-Mode)



Address	OPTION		VALUE	=	SUM
N1	Tip is:	Percentage =	1		
		Amount =	0		
N2	Key is inactive?		Yes = 1 No = 0		
	Key is active in X control lock position only?		Yes = 2 No = 0		
	Add tax rate 1?		Yes = 4 No = 0		
N3	Add tax rate 2?		Yes = 1 No = 0		
	Add tax rate 3?		Yes = 2 No = 0		
	Add tax rate 4?		Yes = 4 No = 0		
N4	Add the tip total to the NET and GROSS sales total?		Yes = 1 No = 0		

VALIDATE - Function Key Options

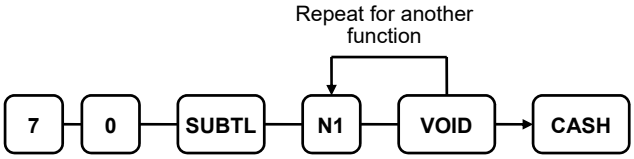
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Enter output communication port. Enter Zero if validation is not used.	0-4		
N2	This function is disabled?	Yes = 1 No = 0		
	Allow multiple validations?	Yes = 2 No = 0		

VOID - Function Key Options

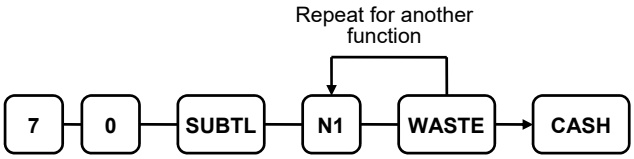
Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Key is active in X control lock position only?	Yes = 2 No = 0		

WASTE - Function Key Options

Options - Program 70 (P-Mode)

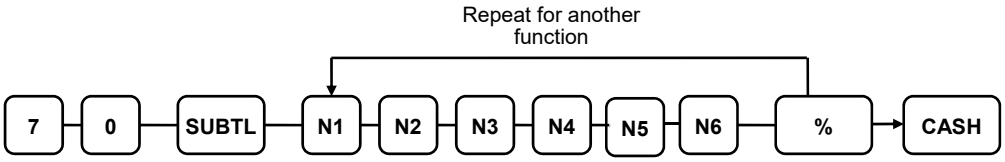


Address	OPTION	VALUE	=	SUM
N1	Key is inactive?	Yes = 1 No = 0		
	Key is active in X control lock position only?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		

%1-%5 Function Key Options

Note: See "Program 90 Instructions for %1 - %5 Keys" on page 156 for instruction on setting the value for the percentage amount.

Options - Program 70 (P-Mode)



Address	OPTION		VALUE	=	SUM
N1	Apply an:	Amount =	1		
		Percentage =	0		
	Key is inactive?		Yes = 2 No = 0		
	% Key is active in X control lock position only?		Yes = 4 No = 0		
N2	% Key is:	Open =	1		
		Preset =	0		
	% Key is:	Sale =	2		
		Item =	0		
	Allow % key override preset?		Yes = 4 No = 0		
N3	% Key is:	Positive =	1		
		Negative =	0		
	%/Amount taxable tax 1?		Yes = 2 No = 0		
N4	%/Amount taxable tax 2?		Yes = 1 No = 0		
	%/Amount taxable tax 3?		Yes = 2 No = 0		
	%/Amount taxable tax 4?		Yes = 4 No = 0		
N5	Reduce (or increase) the food stamp subtotal by % entry?		Yes = 1 No = 0		
	Allow only one time subtotal entry?		Yes = 2 No = 0		
	Allow multiple amount discounts (coupons) without pressing subtotal?		Yes = 4 No = 0		
N6	Allow % key preset override active in X control lock position only?		Yes = 1 No = 0		
	Validation is compulsory?		Yes = 2 No = 0		

Mix and Match Discount Programming

Retailers often offer discounts when multiples of different items are purchased. For example, the offer: “save $5 on any three bottles of wine” can be handled by a mix and match discount. The ER-900 can accommodate up to 99 different mix and match discounts.

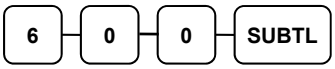
Tables have the following programming options that are set through separate programs:

- ***Program 600*** – Trip Level Programming – This program sets the number of items that must be purchased to receive the discount
- ***Program 601*** – Price Programming – This program sets the amount of the discount.
- ***Program 610*** – Mix & Match Descriptor – This program allows you to set a unique, up to 18-character, descriptor for each Mix & Match discount.

You also must link eligible items to the appropriate table. See “Mix & Match Programming” on page 137 to identify the mix and match table for the eligible PLU.

Program 600 – Trip Level Programming

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **6 0 0**, press the **SUBTL** key.



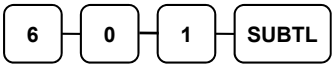
3. Enter the number **(1-99)** of the mix and match table you wish to program; press the **X/TIME** key.

4. Enter a **Trip Level** of up to 5 digits (the Maximum Level you can enter is 50000) and press the **SUBTL** key.

5. Repeat from step 3 for each table you wish to program. Press the **CASH** key to finalize the program.

Program 601 – Price Programming

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **6 0 1**, press the **SUBTL** key.



3. Enter the number **(1-99)** of the mix and match table you wish to program; press the **X/TIME** key.

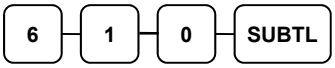
4. Enter a **Price/HALO** (up to 7 digits) and press the **SUBTL** key.

5. Repeat from step 3 for each table you wish to program. Press the **CASH** key to finalize the program.

Program 610 – Mix & Match Descriptor Programming

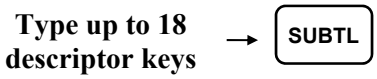
Program descriptors by typing descriptors on the alpha keyboard overlay or by entering the three-digit alpha character codes. To enter descriptors by three-digit alpha character codes you must set system option #31 (See "System Option Programming" on page 138).

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **6 1 0**, press the **SUBTL** key.

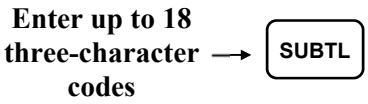


3. Enter the number **(1-99)** of the M&M table you wish to program; press the **X/TIME** key.

4. If you are programming using an alpha keyboard overlay, type up to 18 descriptors on the overlay and press the **SUBTL** key. (Note: As you are entering descriptors only the last 16 descriptors will display.)



   If you are programming using descriptor codes, enter up to 18 three-character codes and press the **SUBTL** key.



5. Press the **CASH** key to finalize the program.

Clerk Programming

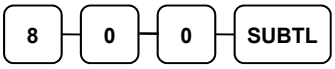
Clerks (which may be used as cashiers), have the following programming options. These options are set through separate programs:

- ***Program 800 -*** *Secret Code programming* determines the code that is used for clerk sign on if a code entry sign on method is selected in system option #2. See "System Option Programming" on page 138.
- ***Program 801 -*** If a second cash drawer is installed, *Drawer Assignment* determines which cash drawer will be opened for each.
- ***Program 810 -*** *Clerk Descriptor Programming* allows you to set a unique, up to 18-character, descriptor for each clerk

Before attempting any programming, all clerks must first be signed off in REG mode.

Program 800 - Secret Code Programming

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **8 0 0**, press the **SUBTL** key.



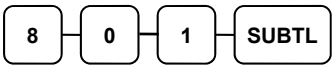
3. Enter the number **(1-99)** of the clerk you wish to program; press the **X/TIME** key.

4. Enter a **SECRET CODE** (up to 6 digits); press the **SUBTL** key.

5. Repeat from step 3 for each clerk you wish to program. Press the **CASH** key to finalize the program.

Program 801 - Drawer Assignment

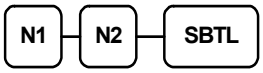
1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **8 0 1**, press the **SUBTL** key.



3. Enter the number **(1-99)** of the clerk you wish to program; press the **X/TIME** key.

4. Refer to the table below and enter a 2-digit option code. Press the **SUBTL** key.

Address	OPTION	VALUE	=
N1	Assign to drawer 1: Assign to drawer 2: No Drawer:	1 2 0	
N2	Train Clerk	Yes = 1 No = 0	

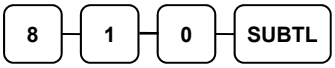


5. Repeat from step 3 for each clerk you wish to program. Press the **CASH** key to finalize the program.

Program 810 - Clerk Descriptor Programming

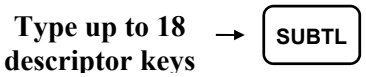
Program descriptors by typing descriptors on the alpha keyboard overlay or by entering three-digit alpha character codes. To enter descriptors by three-digit alpha character codes you must set system option #31 (See "System Option Programming" on page 138).

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **8 1 0**, press the **SUBTL** key.

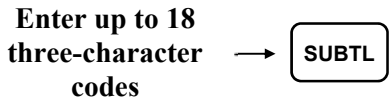


3. Enter the number **(1-99)** of the clerk you wish to program; press the **X/TIME** key.

4. If you are programming using an alpha keyboard overlay, type up to 18 descriptors on the overlay and press the **SUBTL** key. (Note: As you are entering descriptors only the last 16 descriptors will display.)



   If you are programming using descriptor codes, enter up to 18 three-character codes and press the **SUBTL** key.



5. Press the **CASH** key to finalize the program.

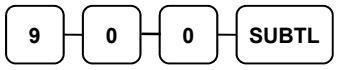
Group Programming

99 Group totals are available to accumulate totals of individual PLUs that are assigned to each group. Each PLU can be assigned to one, two or three different groups. (See "Program 150 – PLU Group Assignment" on page 129 to program PLU groups for each PLU.)

- ***Program 900*** – Used to assign a group status, i.e. a group can be set to *not add* to the total of all groups, or a group can be used to designate like items for kitchen printer assignment.
- ***Program 910*** – Used to assign a unique descriptor for each group, so that the group may be easily understood on the group report.

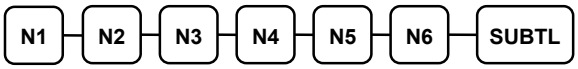
Programming Group Status - Program 900

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **9 0 0**, press the **SUBTL** key.



3. Enter the number **(1-99)** of the group you wish to program; press the **X/TIME** key.

4. Refer to the "Group Status Chart" to determine the values for **N1** through **N6**. (If an address offers more than one option, add the values for each option and enter the sum.) Enter the values you have selected, press the **SBTL** key. ***(You do not need to enter preceding zeros.*** *For example, if you are only selecting a value for **N6**, just enter that value.)* Enter an option digit from the table below, press the **SUBTL** key.



5. To program additional groups, repeat from step 3, or press the **CASH** key to finalize the program.

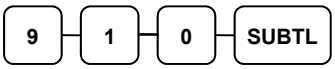
Group Status Chart

Address	OPTION	VALUE	=	SUM
N1	Group total is added to the total of all groups on the Group report?	Yes = 0 No = 1		
	Send to kitchen printer?	Yes = 2 No = 0		
N2	No Choice	0		
	KP PORT# : R (receipt requisition)	1		
	KP PORT#: 1	2		
	KP PORT#: 2	4		
N3	KP PORT#: 3	1		
	KP PORT#: 4	2		
N4	Print RED on KP?	Yes = 1 No = 0		
N5	Gift Card:	None = 0 Activate = 1 Add = 2		
N6	Age Verification (v 1.056 or later)	0-5		

Programming Group Descriptors

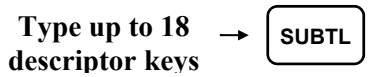
Program descriptors by typing descriptors on the alpha keyboard overlay or by entering three-digit alpha character codes.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **9 1 0**, press the **SUBTL** key.

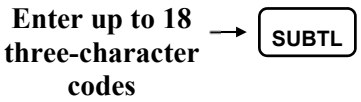


3. Enter the number **(1-99)** of the group you wish to program; press the **X/TIME** key.

4. If you are programming using an alpha keyboard overlay, type up to 18 descriptors on the overlay and press the **SUBTL** key. (Note: As you are entering descriptors only the last 16 descriptors will display.)



5. If you are programming using descriptor codes, enter up to 18 three-character codes and press the **SUBTL** key.



6. To program additional groups, repeat from step 3, or press the **CASH** key to finalize the program.

Miscellaneous Programming

Program 1500 - Macro Key Sequence Programming

Macros are special function keys that are used to execute a sequence of key depressions. For example, a macro might be used to execute a string of reports or to automatically tender a preset amount. Up to ten different macros may be placed on the keyboard. (See "Function Key Assignment Programming" on page 101 to place macros on the keyboard.)

To Program a Macro

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **1 5 0 0**, press the **SUBTL** key.

3. Press the **MACRO KEY** that you wish to program.

4. You must set the key lock to the position where you wish the macro to set the register (**REG, X or Z**). For example, if you wish the macro to set the key lock to **X** to run a report, turn the key lock to **X**. When used in the **REG** position, the macro will set the register to **X** and run the report.
5. Press up to **50 KEYSTROKES** that you wish the macro to execute.

Type up to 50 keystrokes

6. Return the key lock to the **PGM** position and press the macro key to finalize.

7. Repeat from step 3 to program additional macros. Press the **CASH** key to finalize the program.

To Remove a Macro

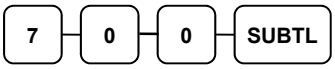
If you wish to change a macro sequence change the function key assignment of the key to 'Inactive' (key code 447), then reassign the macro function and reprogram the keystrokes as shown above. (See "Function Key Assignment Programming" on page 101.)

Program 700 – Logo/Endorsement Message Programming

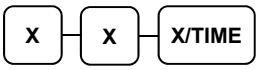
Programming the Receipt/Check Endorsement Message

A preamble message of up to six lines can be printed at the top of each receipt; a postamble message of up to six lines can be printed at the bottom of each receipt, and an endorsement message of up to ten lines can be printed when a check is endorsed on an optional slip printer. Each line can consist of up to 32 characters.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **7 0 0**, press the **SUBTL** key.

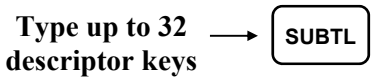


3. Refer to the chart below and enter the number that represents the line you wish to program; press the **X/TIME** key.

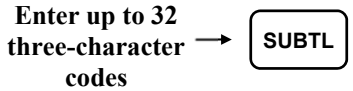


X	Message Line	X	Message Line
1	1st line of Preamble	12	6th line of Postamble
2	2nd line of Preamble	13	1st line of Endorsement
3	3rd line of Preamble	14	2nd line of Endorsement
4	4th line of Preamble	15	3rd line of Endorsement
5	5th line of Preamble	16	4th line of Endorsement
6	6th line of Preamble	17	5th line of Endorsement
7	1st line of Postamble	18	6th line of Endorsement
8	2nd line of Postamble	19	7th line of Endorsement
9	3rd line of Postamble	20	8th line of Endorsement
10	4th line of Postamble	21	9th line of Endorsement
11	5th line of Postamble	22	10th line of Endorsement

4. If you are programming using an alpha keyboard overlay, type up to 32 descriptors on the overlay and press the **SUBTL** key.
5. (Note: As you are entering descriptors only the last 16 descriptors will display.)



6. If you are programming using descriptor codes, enter up to 32 three-character codes and press the **SUBTL** key.

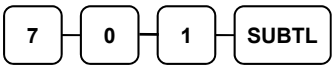


7. Press the **CASH** key to finalize the program.

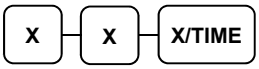
Program 701 - Financial Report Descriptor Programming

The Financial Report selection allows you to reprogram the descriptors that appear with the Financial Report totals and counters. For example, the first total on the financial report "+PLU TTL" represents the total of all positive PLU entries. You might wish to re-label this total to say "FOOD SALES". You can reprogram any of the Financial Report totals listed here with any 18-character descriptor.

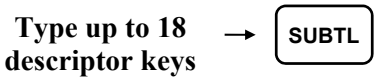
1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **7 0 1**, press the **SUBTL** key.



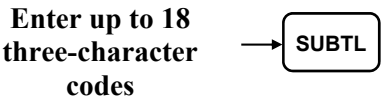
3. Refer to the chart on the next page and enter the number that represents the line you wish to program; press the **X/TIME** key.



4. If you are programming using an alpha keyboard overlay, type up to 18 descriptors on the overlay and press the **SUBTL** key. (Note: As you are entering descriptors only the last 16 descriptors will display.)



If you are programming using descriptor codes, enter up to 18 three-character codes and press the **SUBTL** key.



5. Press the **CASH** key to finalize the program.

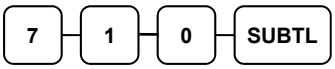
Financial Report Descriptors Chart

X	Message Line	X	Message Line	X	Message Line
1	+PLU TTL	30	FD/S CREDIT	59	CHG1 SALES
2	-PLU TTL	31	RETURN	60	CHG2 SALES
3	ADJST TTL	32	ERROR CORR	61	CHG3 SALES
4	NONTAX	33	PREVIOUS VD	62	CHG4 SALES
5	TAX1 SALES	34	VOID MODE	63	CHG5 SALES
6	TAX2 SALES	35	CANCEL	64	CHG6 SALES
7	TAX3 SALES	36	GROSS SALES	65	CHG7 SALES
8	TAX4 SALES	37	CASH SALES	66	CHG8 SALES
9	TAX1	38	CHECK SALES	67	FOREIGN 1
10	TAX2	39	R/A 1	68	FOREIGN 2
11	TAX3	40	R/A 2	69	FOREIGN 3
12	TAX4	41	R/A 3	70	FOREIGN 4
13	XMPT1 SALES	42	P/O 1	71	DRWR TTL
14	XMPT2 SALES	43	P/O 2	72	PROMO
15	XMPT3 SALES	44	P/O 3	73	WASTE
16	XMPT4 SALES	45	HASH TTL	74	TIP
17	EATIN TTL	46	AUDACTION	75	TRAIN TTL
18	TAKEOUT TTL	47	NOSALE	76	BAL FORWARD
19	DRTHRU TTL	48	CASH-IN-D	77	GUESTS
20	% 1	49	CHECK-IN-D	78	P/BAL
21	% 2	50	FD/S-IN-D	79	CHECKS PAID
22	% 3	51	CHG1-IN-D	80	SERVICE
23	% 4	52	CHG2-IN-D	81	MIX&MATCH
24	% 5	53	CHG3-IN-D	82	PAYMENT TTL
25	NET SALE	54	CHG4-IN-D		
26	CREDIT TAX1	55	CHG5-IN-D		
27	CREDIT TAX2	56	CHG6-IN-D		
28	CREDIT TAX3	57	CHG7-IN-D		
29	CREDIT TAX4	58	CHG8-IN-D		

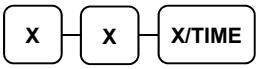
Program 710 - Clerk Report Descriptor Programming

The Clerk Report selection allows you to reprogram the descriptors that appear with the Clerk Report totals and counters. For example, the first total on the clerk report "NET SALES" might be re-labeled to say "GROSS SALES". You can reprogram any of the Clerk Report totals listed here with any 18-character descriptor.

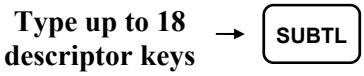
1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **7 1 0**, press the **SUBTL** key.



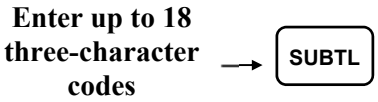
3. Refer to the chart on the next page and enter the number that represents the line you wish to program; press the **X/TIME** key.



   If you are programming using an alpha keyboard overlay, type up to 18 descriptors on the overlay and press the **SUBTL** key.
   (**Note:** As you are entering descriptors only the last 16 descriptors will display.)



4. If you are programming using descriptor codes, enter up to 18 three-character codes and press the **SUBTL** key.



5. Press the **CASH** key to finalize the program.

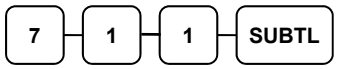
Clerk Report Descriptors

X	Message Line	X	Message Line	X	Message Line
1	NET SALE	26	CREDIT TAX4	51	CHG6 SALES
2	NONTAX	27	FD/S CREDIT	52	CHG7 SALES
3	TAX1 SALES	28	RETURN	53	CHG8 SALES
4	TAX2 SALES	29	ERROR CORR	54	FOREIGN 1
5	TAX3 SALES	30	PREVIOUS VD	55	FOREIGN 2
6	TAX4 SALES	31	VOID MODE	56	FOREIGN 3
7	TAX1	32	CANCEL	57	FOREIGN 4
8	TAX2	33	GROSS SALES	58	DRWR TTL
9	TAX3	34	CASH SALES	59	PROMO
10	TAX4	35	CHECK SALES	60	WASTE
11	XMPT1 SALES	36	R/A 1	61	TIP
12	XMPT2 SALES	37	R/A 2	62	TRAIN TTL
13	XMPT3 SALES	38	R/A 3	63	BAL FORWARD
14	XMPT4 SALES	39	P/O 1	64	GUESTS
15	EATIN TTL	40	P/O 2	65	P/BAL
16	TAKEOUT TTL	41	P/O 3	66	CHECKS PAID
17	DRTHRU TTL	42	HASH TTL	67	SERVICE
18	% 1	43	CASH-IN-D	68	NOSALE
19	% 2	44	CHECK-IN-D	69	MIX&MATCH
20	% 3	45	FD/S-IN-D	70	PAYMENT
21	% 4	46	CHG1 SALES		
22	% 5	47	CHG2 SALES		
23	CREDIT TAX1	48	CHG3 SALES		
24	CREDIT TAX2	49	CHG4 SALES		
25	CREDIT TAX3	50	CHG5 SALES		

Program 711 - Macro Name Programming

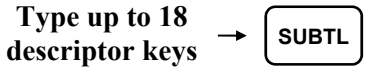
Up to ten function locations may be designated as Macro keys. You may wish to program a name for a macro. For example, if a macro executes a series of commands to produce daily reports, you can program the descriptor "DAILY", so the macro can easily be identified. Macro names can also be helpful when looking at keyboard layout information with the PC communication utility.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **7 1 1**, press the **SUBTL** key.

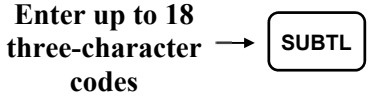


3. Enter the number of the Macro you wish to program **(1-10)**; press the **X/TIME** key.

4. If you are programming using an alpha keyboard overlay, type up to 18 descriptors on the overlay and press the **SUBTL** key.
   (**Note:** As you are entering descriptors only the last 16 descriptors will display.)



   If you are programming using descriptor codes, enter up to 18 three-character codes and press the **SBTL** key. (See "Descriptor Code Chart" on page 134.)

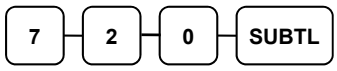


5. Press the **CASH** key to finalize the program.

Program 720 – Datatran Message Program

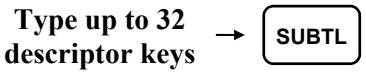
When the Datatran integrated payment appliance is connected, you can print a message of up to four lines on the electronic payment draft receipt.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **7 2 0**, press the **SUBTL** key.

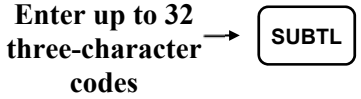


3. Enter the number of the message line **(1-4)** you wish to program; press the **X/TIME** key.

4. If you are programming using an alpha keyboard overlay, type up to 32 descriptors on the overlay and press the **SUBT**L key.
   (Note: As you are entering descriptors only the last 16 descriptors will display.)



   If you are programming using descriptor codes, enter up to 32 three-character codes and press the **SBTL** key. (See "Descriptor Code Chart" on page 134.)



5. Press the **CASH** key to finalize the program.

Program 990 – Age Verification

An age verification feature was added a version 1.056 or later. Up to five different age categories can be created for age restricted items, for example tobacco products could be restricted at age 18 and alcohol products restricted at age 21. The age entries are made with this program. In addition, you will need to use the Group program to define the items that will be restricted. See "Group Programming" on page 188.

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **9 9 0**, press the **SUBTL** key.

3. Enter the age category **(1-5)** you wish to program; press the **X/TIME** key.

4. Enter the age you wish to set, press the **SUBTL** key.

5. Press the **CASH** key to finalize the program.

Program 1000 - NLU Code Number Programming

Keyboard PLUs are fixed keys on the keyboard (like traditional department keys) that access specific PLUs. In the default program each Keyboard PLU will look up the appropriate numeric PLU, beginning with PLU #1 for Keyboard PLU key #1 and continuing sequentially through the keyboard.

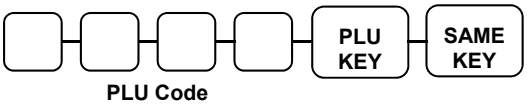
However, this numbering sequence may be impractical for some applications. For example, Keyboard PLU #1 may represent a can of *Diet Pepsi*. The merchant may wish to have the Keyboard PLU look up the UPC code number for *Diet Pepsi*, which is "120500". Using this program, you can change the Number Look-Up (NLU) for the keyboard PLU to any 15-digit number you choose.

On the ER-920 and ER-940 default keyboard, there are 100 keyboard PLU keys. The ER-925 and ER-945 come equipped with 21 Keyboard PLUs and may be expanded to up to 63 Keyboard PLUs. The ER-915 has 7 PLU's on the default keyboard and may be expanded to 14 keyboard PLU's.

Programming the NLU Code Number

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **1 0 0 0**, press the **SUBTL** key.

3. Enter the new **PLU CODE NUMBER** you wish to use (up to 15 digits) and press the **KEYBOARD PLU** on the keyboard you wish to program. Press the same PLU key again.



4. Repeat step #3 to program additional Keyboard PLU locations, or press **CASH** to finalize the program.

Program 1100 - Cash-In-Drawer Limit Programming

You can set a cash-in-drawer limit. When cash in drawer exceeds the limit a warning will display on the screen. You must press CLEAR to remove the warning and continue operations. The warning will continue to appear at the completion of every transaction with the limit exceeded, until you use the PAID OUT function to remove cash from the drawer.

Programming the Drawer Limit

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter 1 1 0 0, press the **SUBTL** key.

3. Enter the desired **CASH-IN-DRAWER LIMIT** (up to 8 digits or 0 for no limit); press the **X/TIME** key.

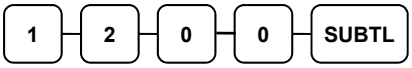
4. Press the **CASH** key to finalize the program.

Program 1200 - Check Change Limit Programming

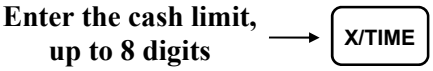
Use this program to set the maximum amount of cash that can be returned when a check is tendered for an amount greater than the amount of the sale. For example, if the check change limit is $10.00 the maximum amount that can be tendered into the check key on a $5.00 sale is $15.00.

Programming the Check Change Limit

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **1 2 0 0**, press the **SUBTL** key.



3. Enter the desired **CHECK CHANGE LIMIT** (up to 8 digits or 0 for no limit); press the **X/TIME** key.



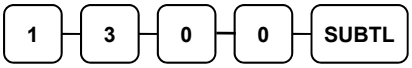
4. Press the **CASH** key to finalize the program.

Program 1300 - Date and Time Programming

Use this program to set the clock and calendar on your ER-900 Series register. The date changes automatically. After initial setting, time changing will probably be required only for beginning and ending daylight savings time.

Programming the Date and Time

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **1 3 0 0**, press the **SUBTL** key.



3. Enter the **TIME** in military standard time (based on 24 hours), must be four digits (i.e. 1300 hours = 1:00 PM); press the **X/TIME** key.

4. Enter the **DATE** as **MM**(month) **DD**(day) and **YY**(year) format (two digits for each, MM DD YY). Press the **X/TIME** key:

5. Press the **CASH** key to finalize the program.

Program 1400 - Scale Tare Weight Programming

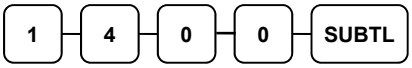
A tare is the amount of weight representing the container, or package used in measuring out, when items are sold by weight. You can pre-program five tare weights, representing the weight of different containers. When you place an item and a container on optional scale, you can enter the tare number to automatically subtract the pre-programmed tare weight.

If your scale is reading pounds, enter the tare in pounds; if your scale is reading ounces, enter the tare in ounces.

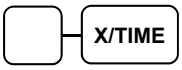
The last digit entered for tare must be a zero or five. The ECR reads the scale weight to 2 decimal places *(X.xx)* so the Tare Weight can only be entered to 2 decimal places *(X.xx)*. The third digit is enterd for rounding purposes. For example, if the tare is 1.15 lbs, enter 1.150; if the tare is .095 lbs, enter 0.095.)

If you choose to use tare #5 for manual tare weight entry, do not enter a weight for tare #5. (See "Scale Operation" on page 84.)

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **1 4 0 0**, press the **SUBTL** key.



3. Enter the number **(1-5)** of the tare you wish to program; press the **X/TIME** key.



4. Enter the **WEIGHT OF THE TARE**; one digit preceding the decimal key, the decimal key, and then three digits after the decimal key (remember, that last/third digit must be a zero or five). Press the **SUBTL** key.

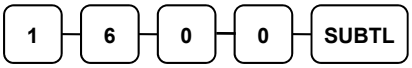
5. To program additional tare weights, repeat from step 3, or press the **CASH** key to finalize the program.

Program 1600 - Machine Number Programming

The machine number is printed on the register receipt. Program a machine number so that any receipt or journal can be identified with the store or register where the transaction took place.

Programming the Machine Number

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **1 6 0 0**, press the **SUBTL** key.



3. Enter a **MACHINE NUMBER** (up to 5 digits); press the **X/TIME** key.

4. Press the **CASH** key to finalize the program.

Program 1900 – Starting Kitchen Printer Order Number

When using a kitchen printer or requisition receipt, you can program the starting order number that will appear on the requisition. When a Z1 financial report is taken, the requisition number will reset and begin again at the number set here.

Programming the Starting KP Order Number

1. Turn the control lock to the **PGM** position.
2. To begin the program, enter **1 9 0 0**, press the **SUBTL** key.

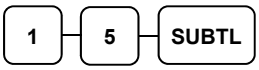
3. Enter the **STARTING NUMBER** (up to 4 digits); press the **X/TIME** key.

4. Press the **CASH** key to finalize the program.

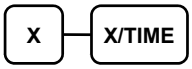
Program Scans

Since much time and energy has been invested in the planning and programming of your *ER-900*, it is advisable to print a hard copy of the final program for future reference. This copy should be kept in a safe place. (You can also save your program electronically, on a SD card. Go to "Program Backup and Restore" on page 106 to use this method.)

1. Turn the control lock to the **PGM** position.
2. To print a program scan, enter **1 5**, press the **SUBTL** key.



3. Refer to the chart below and enter a digit to represent the segment of the program you wish to print; press the **X/TIME** key.



X	Program	X	Program
0	Group	9	Financial Report message
1	Tax	10	Clerk Report message
2	System option	11	Macro Name
3	Print option	12	Drawer Limit
4	Function keys	13	Check Change Limit
5	Clerk	14	Time & Date
6	Preamble message	15	Tare Weight
7	Postamble message	16	Machine Number
8	Endorsement message	17	Mix & Match
		21	Age Verification

4. To read PLU program information, enter the number of the **first PLU** in a range of PLUs (up to 15 digits) that are to be scanned; press the **PLU** key. Enter the number of the **last PLU** in the range (up to 15 digits); press the **PLU** key:

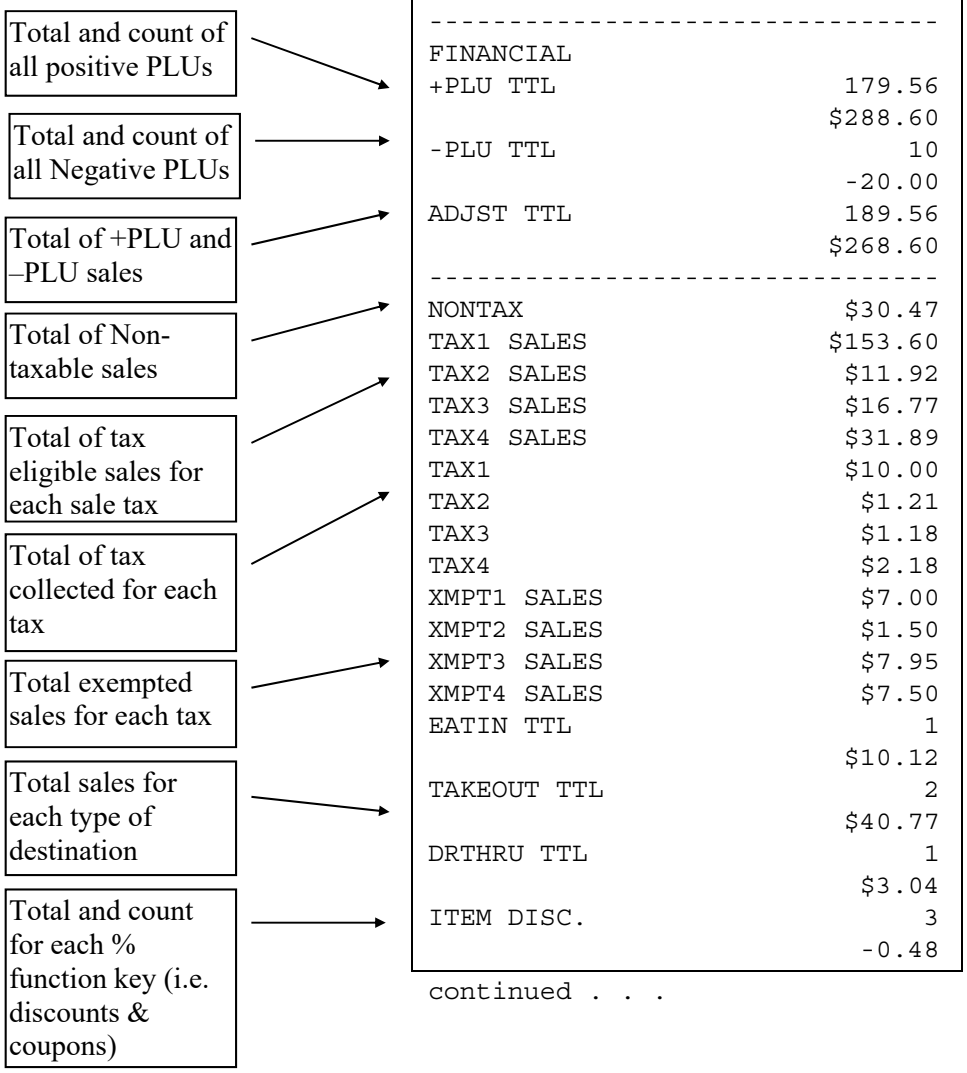
Or, press the **first PLU** key on the keyboard to be scanned and Press the **last PLU** key on the keyboard:

5. To read **MACRO** information, press the **MACRO** key to be scanned:

6. To read additional parts of the program, repeat from step 3, or press the **CASH** key to finalize the program.

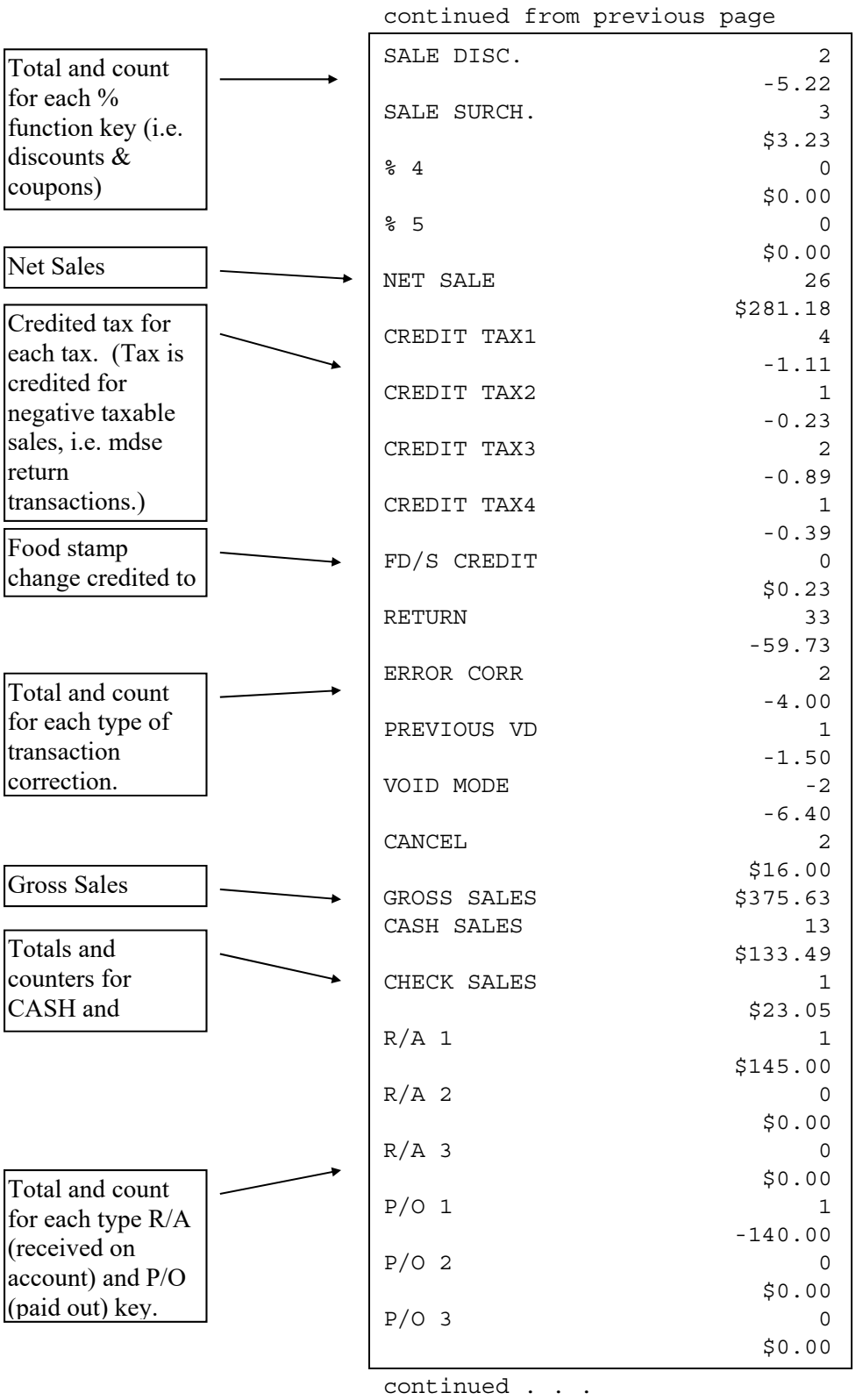
Sample Reports

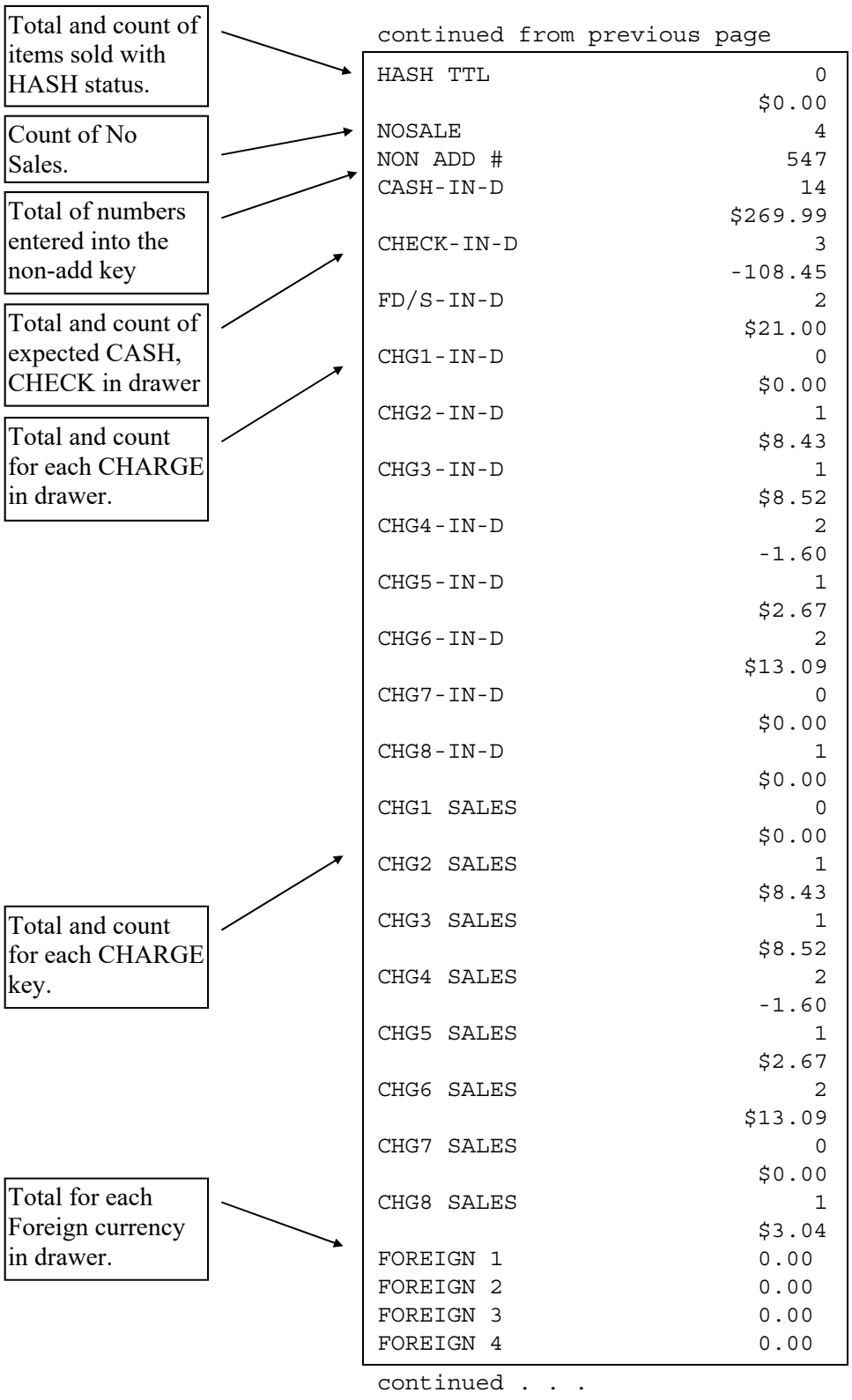
Financial

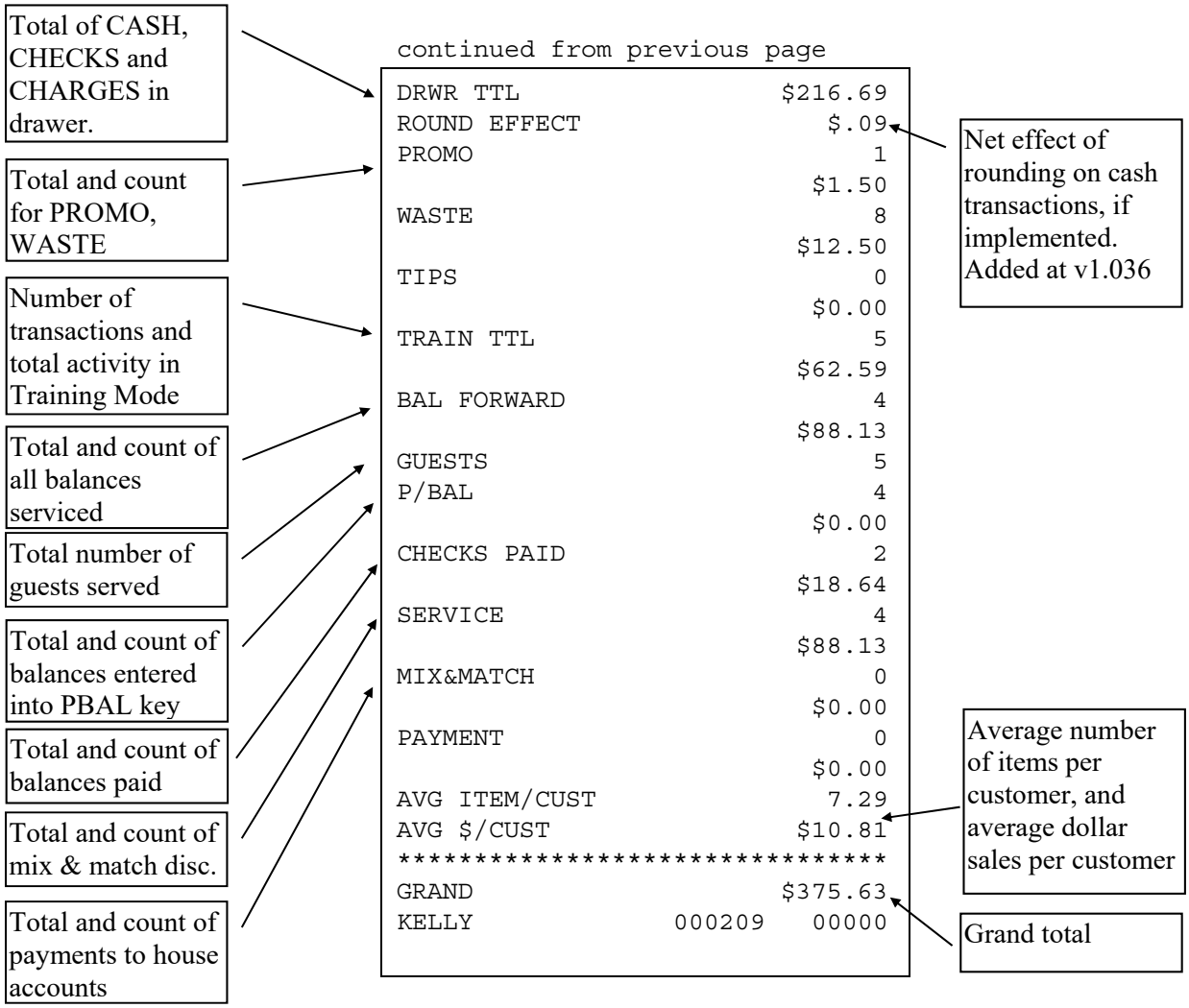



```
DATE 11/10/2011 WED   TIME 13:32
X 1   REPORT                00001
--------------------------------
FINANCIAL
+PLU TTL                   179.56
                          $288.60
-PLU TTL                       10
                           -20.00
ADJST TTL                  189.56
                          $268.60
--------------------------------
NONTAX                     $30.47
TAX1 SALES                $153.60
TAX2 SALES                 $11.92
TAX3 SALES                 $16.77
TAX4 SALES                 $31.89
TAX1                       $10.00
TAX2                        $1.21
TAX3                        $1.18
TAX4                        $2.18
XMPT1 SALES                 $7.00
XMPT2 SALES                 $1.50
XMPT3 SALES                 $7.95
XMPT4 SALES                 $7.50
EATIN TTL                      1
                           $10.12
TAKEOUT TTL                    2
                           $40.77
DRTHRU TTL                     1
                            $3.04
ITEM DISC.                     3
                            -0.48
```

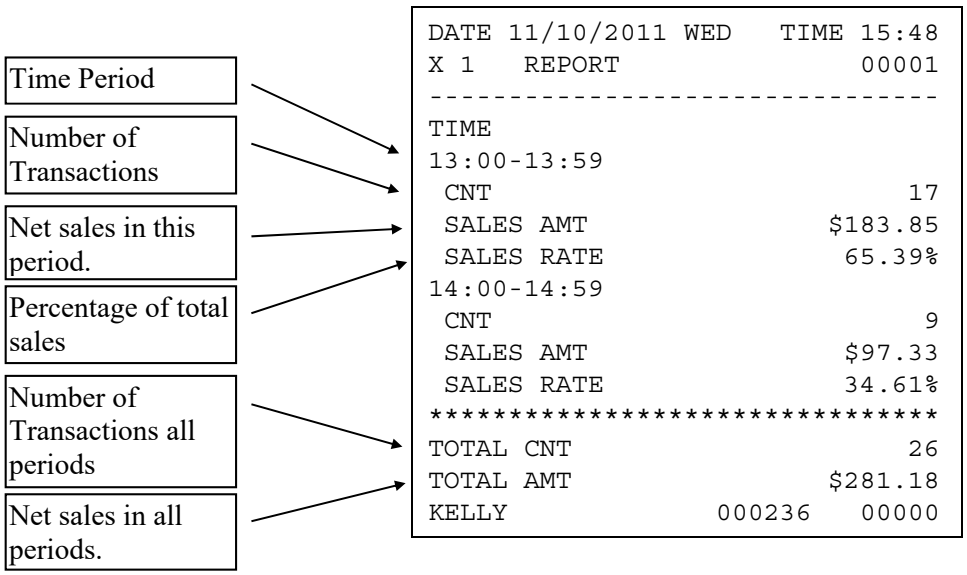
continued . . .


continued from previous page
Total and count for each % function key (i.e. discounts & coupons)
Net Sales
Credited tax for each tax. (Tax is credited for negative taxable sales, i.e. mdse return transactions.)
Food stamp change credited to
Total and count for each type of transaction correction.
Gross Sales
Totals and counters for CASH and
Total and count for each type R/A (received on account) and P/O (paid out) key.
SALE DISC. 2
-5.22
SALE SURCH. 3
$3.23
% 4 0
$0.00
% 5 0
$0.00
NET SALE 26
$281.18
CREDIT TAX1 4
-1.11
CREDIT TAX2 1
-0.23
CREDIT TAX3 2
-0.89
CREDIT TAX4 1
-0.39
FD/S CREDIT 0
$0.23
RETURN 33
-59.73
ERROR CORR 2
-4.00
PREVIOUS VD 1
-1.50
VOID MODE -2
-6.40
CANCEL 2
$16.00
GROSS SALES $375.63
CASH SALES 13
$133.49
CHECK SALES 1
$23.05
R/A 1 1
$145.00
R/A 2 0
$0.00
R/A 3 0
$0.00
P/O 1 1
-140.00
P/O 2 0
$0.00
P/O 3 0
$0.00
continued . . .

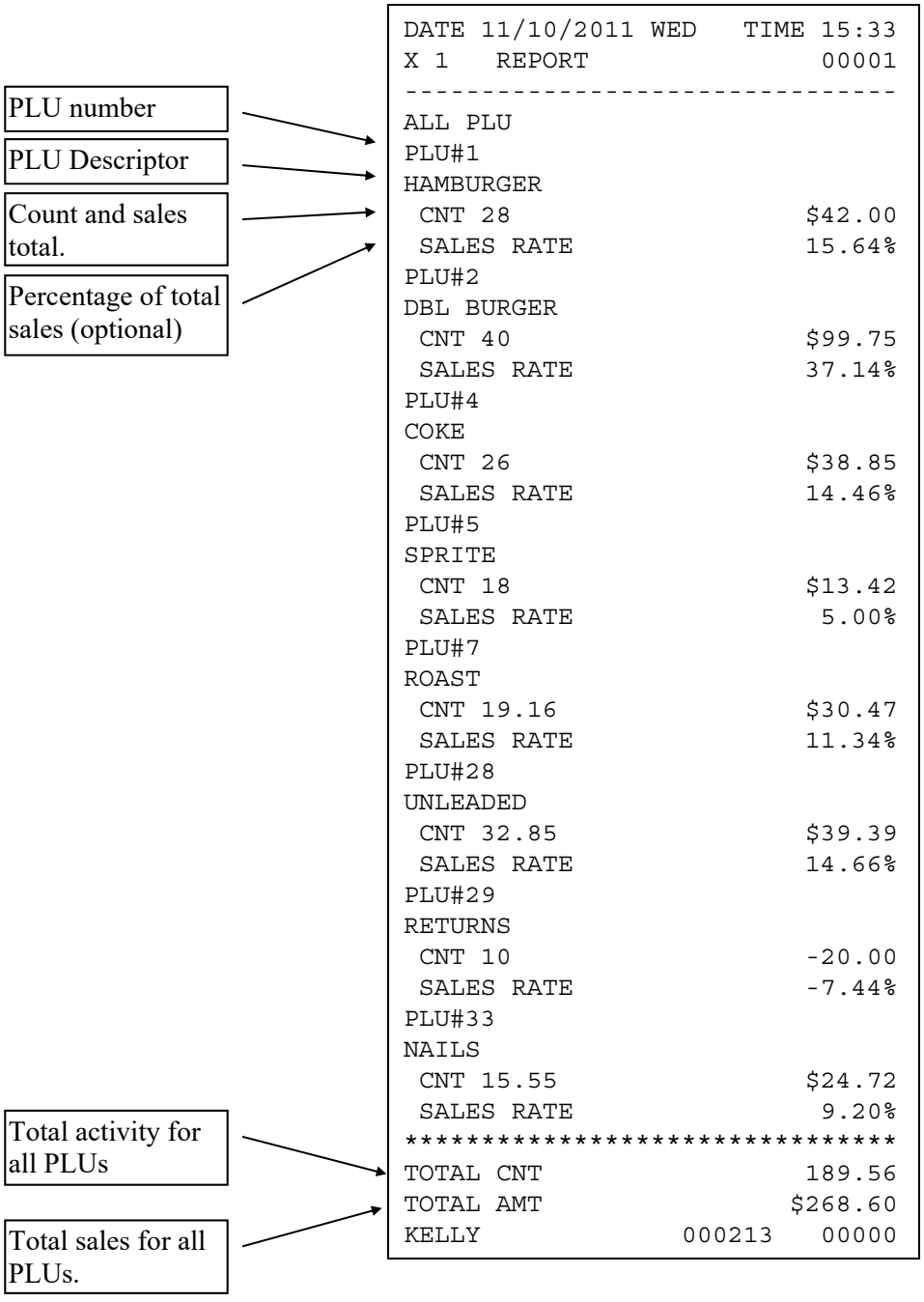

Total and count of items sold with HASH status.
Count of No Sales.
Total of numbers entered into the non-add key
Total and count of expected CASH, CHECK in drawer
Total and count for each CHARGE in drawer.
Total and count for each CHARGE key.
Total for each Foreign currency in drawer.
continued from previous page
HASH TTL 0
$0.00
NOSALE 4
NON ADD # 547
CASH-IN-D 14
$269.99
CHECK-IN-D 3
-108.45
FD/S-IN-D 2
$21.00
CHG1-IN-D 0
$0.00
CHG2-IN-D 1
$8.43
CHG3-IN-D 1
$8.52
CHG4-IN-D 2
-1.60
CHG5-IN-D 1
$2.67
CHG6-IN-D 2
$13.09
CHG7-IN-D 0
$0.00
CHG8-IN-D 1
$0.00
CHG1 SALES 0
$0.00
CHG2 SALES 1
$8.43
CHG3 SALES 1
$8.52
CHG4 SALES 2
-1.60
CHG5 SALES 1
$2.67
CHG6 SALES 2
$13.09
CHG7 SALES 0
$0.00
CHG8 SALES 1
$3.04
FOREIGN 1 0.00
FOREIGN 2 0.00
FOREIGN 3 0.00
FOREIGN 4 0.00
continued . . .


Total of CASH, CHECKS and CHARGES in drawer.
Total and count for PROMO, WASTE
Number of transactions and total activity in Training Mode
Total and count of all balances serviced
Total number of guests served
Total and count of balances entered into PBAL key
Total and count of balances paid
Total and count of mix & match disc.
Total and count of payments to house accounts
continued from previous page
DRWR TTL $216.69
ROUND EFFECT $.09
PROMO 1
$1.50
WASTE 8
$12.50
TIPS 0
$0.00
TRAIN TTL 5
$62.59
BAL FORWARD 4
$88.13
GUESTS 5
P/BAL 4
$0.00
CHECKS PAID 2
$18.64
SERVICE 4
$88.13
MIX&MATCH 0
$0.00
PAYMENT 0
$0.00
AVG ITEM/CUST 7.29
AVG $/CUST $10.81
****
GRAND $375.63
KELLY 000209 00000
Net effect of rounding on cash transactions, if implemented. Added at v1.036
Average number of items per customer, and average dollar sales per customer
Grand total

Time

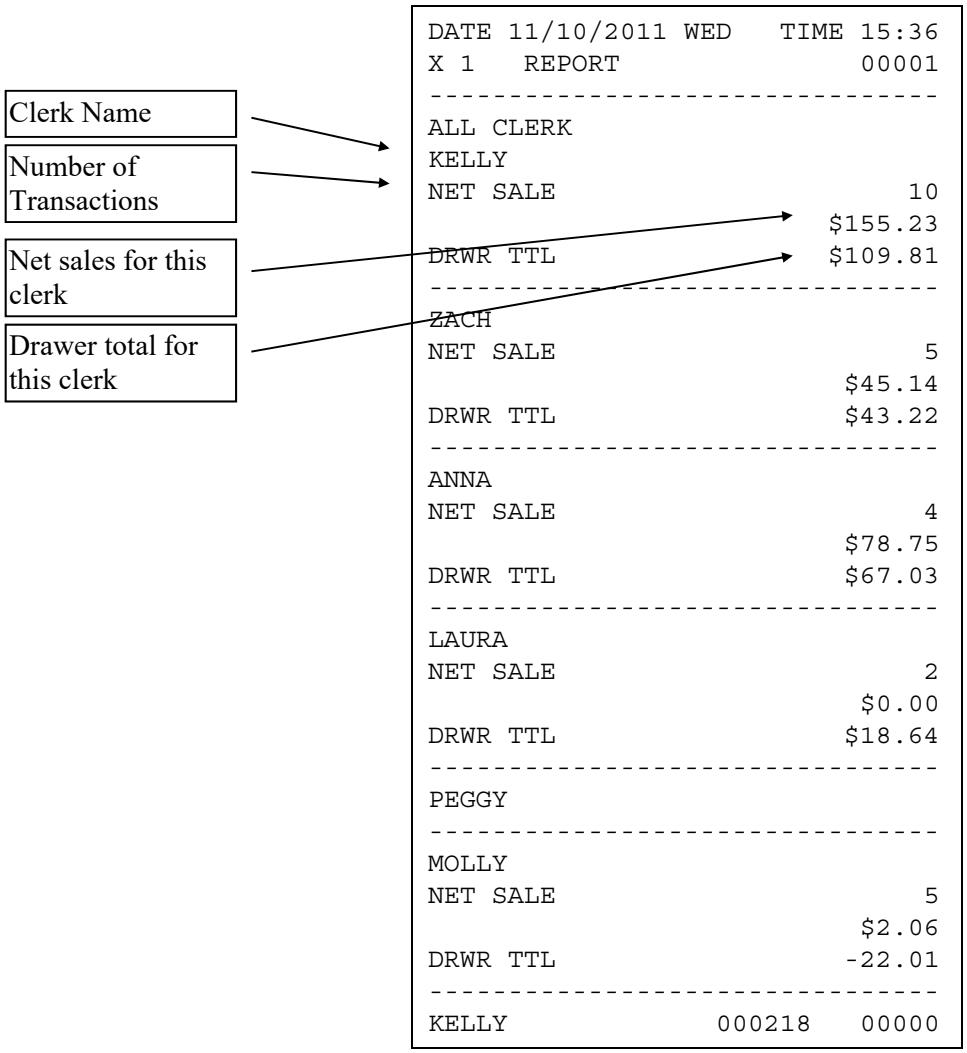

Time Period
Number of Transactions
Net sales in this period.
Percentage of total sales
Number of Transactions all periods
Net sales in all periods.
DATE 11/10/2011 WED TIME 15:48
X 1 REPORT 00001
TIME
13:00-13:59
CNT 17
SALES AMT $183.85
SALES RATE 65.39%
14:00-14:59
CNT 9
SALES AMT $97.33
SALES RATE 34.61%
TOTAL CNT 26
TOTAL AMT $281.18
KELLY 000236 00000

PLU

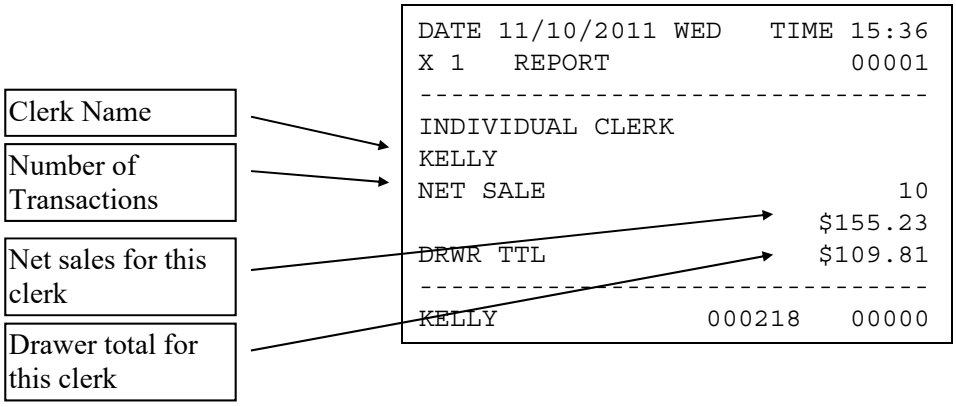

PLU number
PLU Descriptor
Count and sales total.
Percentage of total sales (optional)
Total activity for all PLUs
Total sales for all PLUs.
DATE 11/10/2011 WED TIME 15:33
X 1 REPORT 00001
ALL PLU
PLU#1
HAMBURGER
CNT 28 $42.00
SALES RATE 15.64%
PLU#2
DBL BURGER
CNT 40 $99.75
SALES RATE 37.14%
PLU#4
COKE
CNT 26 $38.85
SALES RATE 14.46%
PLU#5
SPRITE
CNT 18 $13.42
SALES RATE 5.00%
PLU#7
ROAST
CNT 19.16 $30.47
SALES RATE 11.34%
PLU#28
UNLEADED
CNT 32.85 $39.39
SALES RATE 14.66%
PLU#29
RETURNS
CNT 10 -20.00
SALES RATE -7.44%
PLU#33
NAILS
CNT 15.55 $24.72
SALES RATE 9.20%
TOTAL CNT 189.56
TOTAL AMT $268.60
KELLY 000213 00000

Clerk

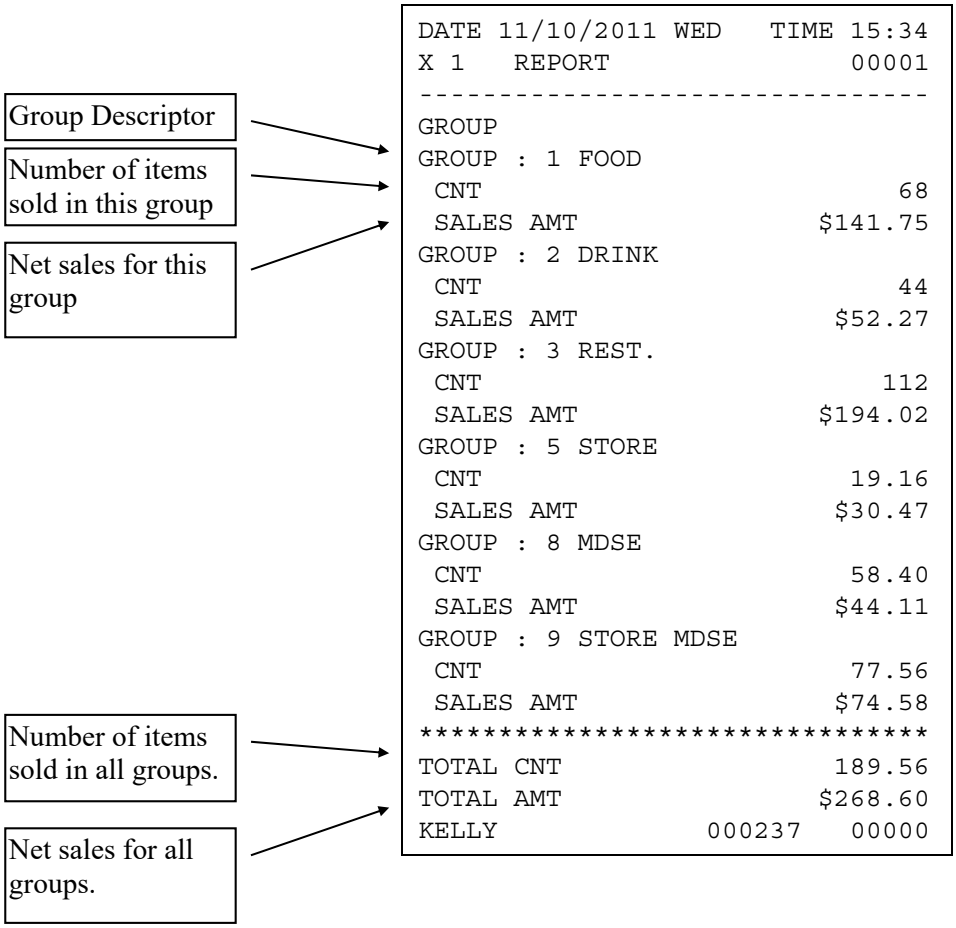
Note: Media totals can be printed for each clerk, if selected in Print Option Programming.



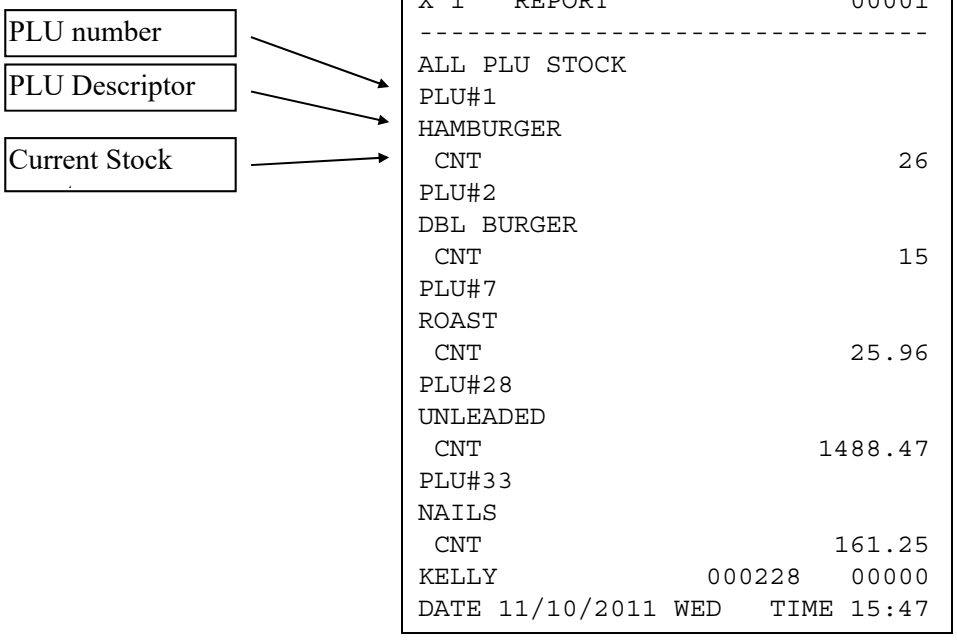
Individual Clerk



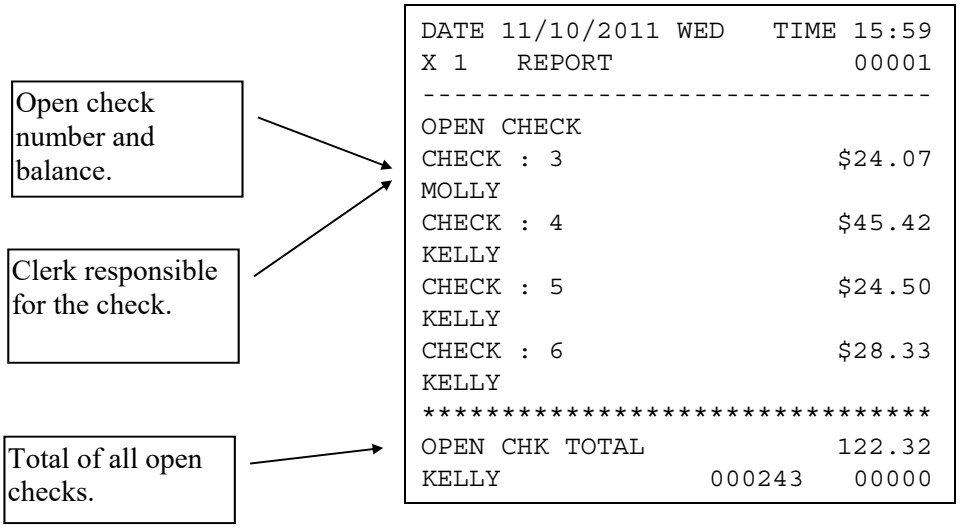
Groups



Stock



Open Check



Balancing Formulas

+/-	Net Sales	$ Example
=	PLU Sales Total	$
+	Tax 1	$
+	Tax 2	$
+	Tax 3	$
+	Tax 4	$
+	Sale Coupon Amounts	$
+	Sale Percent Discounts	$
+	Sale Surcharge Amounts	$
=	Net Sales	$

+/-	Gross Sales	$ Example
=	Net Sales	$
+	Negative PLU Total	$
+	Item Coupon Total	$
+	Item Percent Discount	$
+	Sale Coupon Amounts	$
+	Sale Percent Discounts	$
+	Credit Tax 1	$
+	Credit Tax 2	$
+	Credit Tax 3	$
+	Credit Tax 4	$
+	Merchandise Return	$
+	Void Position Total	$
+	Mix & Match Total	$
=	Gross Sales	$

Integrated Payment Appendix

Overview

Connection to a DataTran integrated payment appliance allows electronic payments to be initiated and completed at the ER-900 series cash register. Although connected, the functions of the ECR and DataTran devices are distinct.

When an electronic payment transaction is completed at the ER-900, the DataTran communicates with the payment processor, through telephone modem or Internet connection (depending upon the model of DataTran used). The DataTran works much like ordinary standalone payment terminals, exempt that the keyboard, display and printing functions take place only at the ER-900 cash register.

Standard cash register reports are separate and distinct from local total, transaction and batch reports that are stored in the DataTran. Payment batch data is stored in the DataTran. Batch and DataTran functions are performed by entering the appropriate command in the ER-900 "Z" key lock position and printed by the cash register. Standard ER-900 reports (Financial and/or Clerk reports) provide summary information for each payment key and tip totals. As a "best practice" it is recommended that payment summary information from cash register reports be confirmed with batch information reported from the DataTran.

Payment Application Best Practice Notes

Password Security: The ER-900 features a clerk sign-on system. Operations are not allowed until a clerk is signed on and the receipt indicates the clerk who performed each operation. Best practices include:

- Each employee should be set up as a unique employee.
- Employee codes should be changed from the default setting.
- When there is employee turnover, employee codes should be changed.

Key Security: The ER-900 features a control lock with different levels of key security. Refer to "Control Lock" on page 16. Keys that access the "Z" key lock position (where DataTran payment functions can be performed) should be distributed only to managers or employees authorized to perform those functions.

Required ECR Programs

You must set EFT status for the port you are using. See "RS-232 Communication Option Programs" on page 103. Set device function to "EFT Device" and set BAUD to "2400".

Set the "System Option Programming" on page 138. Set address #39 to 0 for Normal Draft with Normal Buffer Use. Add the value of 2 to your current value for a draft with a tip line. Set address #37 to define where the MSR is connected – a value of 2 (default value) should be set when the MSR is on the register.

Set "Print Option Programming" on page 146. Set address #35 for the number of Datatran receipt copies you wish to print (0-99).

Set up Tender keys to use with integrated credit; see "CHARGE 1-8 – Function Key Options" on page 160. Set option N5 to reflect the type of payment: Credit, Debit or Gift (check with your representative for availability of gift card processing).

One Day Example of Credit Authorization

Open Batch

NOTE: To present things in a logical order, OPEN BATCH is shown at the *beginning* of the day, but in practical day-to-day operation it is recommended to open a new batch *immediately after* closing the current batch, so it is ready to go for the next day.

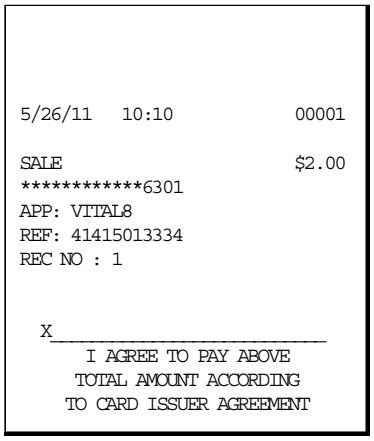
1. Turn the control lock to the **Z** position.
2. Enter **5 0 1**, press **SUBTL**
3. The message "WAITING RESP." displays momentarily, then the message "REPORT MODE" returns. The message "BATCH WAS OPENED SUCCESSFULLY" is printed.

Sample Credit Transaction

1. Register a normal transaction. Press the appropriate **CHARGE** key. The message 'SLIDE CARD" displays:
2. Slide the card. The message "WAITING RESP." displays until the card verification is complete.
3. When verification is complete, the draft is printed.

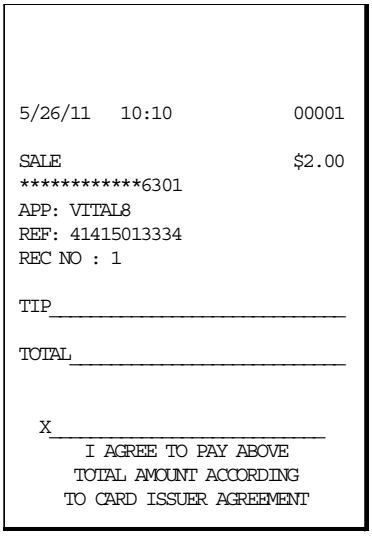
Note: If multiple documents are to be printed, the message "PRESS CASH KEY" displays. Tear off the printer paper, and press CASH to resume printing.

Sample Draft



Sample Draft – With Gratuity

To print the tip entry line, see "System Option Programming" on page 138 and set address #39 to the appropriate value.

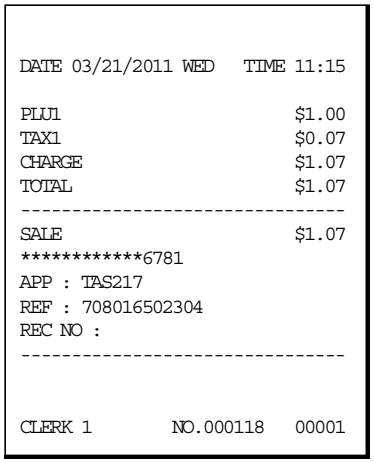


Sample Debit Transaction

1. Register a normal transaction. Press the appropriate **CHARGE** key (with debit function.) The message 'SLIDE CARD" displays:
2. Slide the card. The message "GETTING PIN" displays. (At the PIN pad, the ENTER PIN message displays.)
3. At the PIN pad, enter the PIN and press the ↵ (ENTER) key. The register displays "PIN INPUT OK" momentarily and then displays "WAITING RESP." until the card verification is completed
4. When verification is complete, the draft is printed.

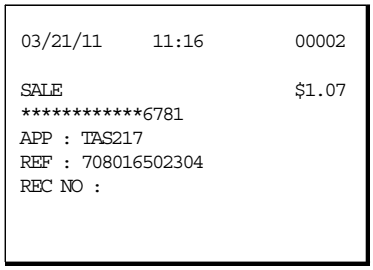
Note: If multiple documents are to be printed, the message "PRESS CASH KEY" displays. Tear off the printer paper, and press CASH to resume printing.

Sample Receipt



```
DATE 03/21/2011 WED   TIME 11:15

PLU1                        $1.00
TAX1                        $0.07
CHARGE                      $1.07
TOTAL                       $1.07
--------------------------------
SALE                        $1.07
**********6781
APP : TAS217
REF : 708016502304
REC NO :
--------------------------------


CLERK 1       NO.000118   00001
```

Sample Draft



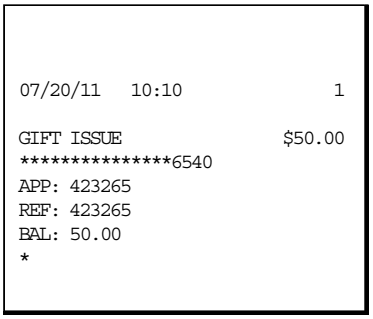
```
03/21/11     11:16          00002

SALE                        $1.07
**********6781
APP : TAS217
REF : 708016502304
REC NO :
```

Gift Card Operations

Sale of Gift Card

1. Register the gift card amount into a PLU linked to a unique PLU Group with the gift card activate function. (See "Group Programming" on page 188 to set group options.)
2. Immediately after the PLU is registered, the message "SLIDE GIFT CARD" displays.
3. Slide the gift card. The terminal displays "WAITING RESP." until the card is activated with the proper amount. *The activation draft is not printed until the sale is completed.*
4. If necessary, continue to register additional items of gift cards in the same transaction. Up to five gift cards may be sold in the same transaction.
5. When activation is complete, the receipt and the draft(s) are printed.

Sample Draft



07/20/11 10:10 1

GIFT ISSUE $50.00
**********6540
APP: 423265
REF: 423265
BAL: 50.00
*

Addition to Gift Card

The procedure is identical to sale of gift card, exempt enter the amount of the addition into a distinct PLU programmed linked to a separate PLU Group set with the gift card add function. (See "Group Programming" on page 188 to set group options.)

Check Gift Card Balance

The gift card balance can be checked when outside of a sale.

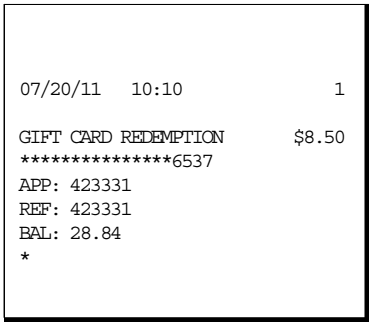
Press the appropriate **CHARGE** key (with gift tender function). When prompted, slide the gift card. When verification is complete, the amount of the balance will print on a chit.

Payment with Gift Card

1. Register a normal transaction.
2. Press the appropriate **MISC TEND** key (with gift tender function). The message "SLIDE GIFT CARD" displays.
3. Slide the gift card. The terminal displays "WAITING RESP." until the card verification is complete.
4. When verification is complete, the receipt and the draft are printed.

Sample Draft

Note:
Gift Balance is printed



```
07/20/11   10:10                1

GIFT CARD REDEMPTION        $8.50
**************6537
APP: 423331
REF: 423331
BAL: 28.84
*
```

Sample Receipt

```
DATE  07/20/2011 WED  TIME 10:10

HAMBURGER FT1234            $1.99
CHEESEBURGER FT1234         $5.99
TAX 1                       $0.52
TOTAL                       $8.50
CHARGE3                     $8.50
--------------------------------
SALE                         8.50
**************6537
APP: 423331
REF: 423331
BAL: 28.84
--------------------------------
        * ORDER# 0166 *
EMPLOYEE1    NO.000066    REG 01
```

Manual Card Entry (Credit, Gift & EBT)

PIN Debit payments must be processed as card-present transactions - card data must be read by the card reader and cannot be manually entered. This is a card requirement, not a function of the point of sale equipment. Manual card entry is allowed on Credit, Gift and EBT transactions if the reader is unable to read the card.

Visa or MasterCard branded Debit cards used for PIN Debit may also be used like credit cards, with just a signature. If a Debit card presented for a PIN Debit transaction fails to read, at the CARD ERROR message press CLEAR. You can now choose an alternative payment method. Press the CREDIT function. Slide the same Debit card, if it fails to read again, select CLEAR. The message "Enter Acct No" displays. You can manually enter the account number and complete the transaction. The merchant may pay different card fees for PIN Debit and signature Debit transactions.

1. Register a normal transaction. Press the appropriate **CHARGE** key. The message 'SLIDE CARD" displays.
2. If card will not read, press CLEAR once, the message "ENTER ACCT NO" displays.
3. Enter the account number and press CASH (or press CLEAR twice to abort the tender.)
4. The message "ENTER EXP DATE" displays (if credit transaction.) Enter the 4-digit expiration date and press CASH (not required for gift card manual entry).
5. When verification is complete, the draft is printed.

Note: If multiple documents are to be printed, the message "PRESS CASH KEY" displays. Tear off the printer paper, and press CASH to resume printing.

Merchandise Return

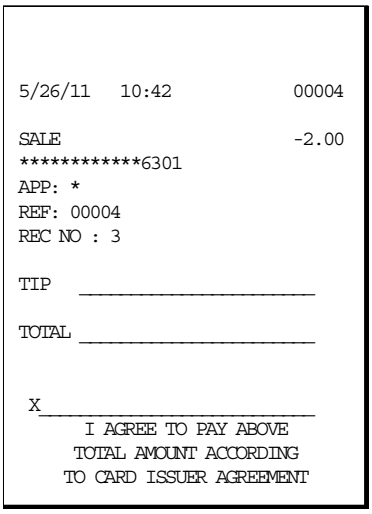
The Merchandise Return function allows item to be refunded. The Merchandise Return transaction will appear as a separate transaction on the card holder statement.

Complete the merchandise return transaction as you would a normal transaction. Press MDSE RTRN prior to entering each returned item.

1. Register a normal transaction. Press the appropriate **CHARGE** key. The message "SLIDE CARD" displays.
2. Slide the card. The message "SLIDE CARD" continues to display until the card verification is complete.
3. When verification is complete, the draft is printed.

Note: If multiple documents are to be printed, the message "PRESS CASH KEY" displays. Tear off the printer paper, and press CASH to resume printing.

Sample Draft



Void Transaction

Transaction Void allows a transaction to be removed from the batch and not reported to the cardholder statement.

1. Turn the key lock to the **VOID** position.
2. Register a normal transaction. Press the appropriate **CHARGE** key. The message "SLIDE CARD" displays
3. Slide the card. The message "ENTER APP CODE" displays.
4. Enter the authorization code printed for the transaction to be voided, press **CASH**. The message "ENTER REF NO" displays.

NOTE: W*hen the approval code is an alphanumeric entry*. If your ER-900 series ECR is using an alpha keyboard overlay, you can type the descriptors. If the alpha keyboard is not available, you must use the alpha code chart to determine the numeric entries. For example, the approval code "VITAL8" would be entered as "086 073 084 065 076 056".

See "ER-925/ER-945 Alpha Keyboard Overlay", "ER-920/ER-940 Alpha Keyboard Overlay" on page 133, or "Descriptor Code Chart" on page 134 to make the appropriate entries.

NOTE: *If the approval code is numeric*, you may have to enter leading zeros.

---

5. Enter the Reference number from the transaction to be voided; press **CASH**. The transaction is found and the original record removed.

Local Total Report

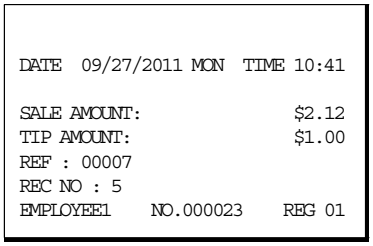
Run an Issue Local Total report to confirm that credit totals match the financial report before closing the batch. See "Issue Local Total" on page 230.

Tip (Gratuity) Entry

Gratuities (tips) indicated by the customer on the payment draft must be entered into the ECR before the batch is closed. Note: If tips are corrected, corresponding corrections must be made manually to the Financial and Clerk reports.

1. Turn the key lock to the **Z** position, enter **5 1 0** and press **SUBTOTAL**.
2. At the message "ENTER REC NO.", enter the record number of the transaction and press **CASH**.
3. At the message "ORIG TRAN AMOUNT", enter the original transaction amount and press **CASH**.
4. At the message "TIP AMOUNT", enter the tip amount and press **CASH**.
5. If the record number and transaction number are valid, the tip amount is entered in the batch and a tip entry chit prints as shown below.

Sample Tip Chit



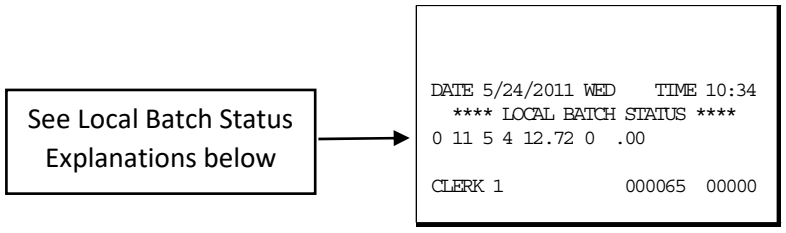
```
DATE  09/27/2011 MON  TIME 10:41

SALE AMOUNT:              $2.12
TIP AMOUNT:               $1.00
REF : 00007
REC NO : 5
EMPLOYEE1    NO.000023    REG 01
```

Close Batch

NOTE: To present things in a logical order, OPEN BATCH is shown at the *beginning* of the day, but in practical day-to-day operation it is recommended to open a new batch *right after* closing today's batch, so it is ready to go for the next day.

1. Turn the control lock to the **Z** position.
2. For non-debit applications: Enter **5 0 2**, press **SUBTL**.
   For debit applications: Enter **5 1 2**, press **SUBTL**
3. The message "WAITING RESP." displays momentarily. When communication is complete, the Local Batch Status prints and the batch is closed. The message "BATCH WAS CLOSED SUCCESSFULLY" prints.

Close Batch



Local Batch Status Explanations:

(From Left to Right)

O	Batch Status: C = Closed, O = Open, X = Incomplete
11	Batch Number
5	Batch Transaction Number
4	Batch Item Count
12.72	Batch Balance
0	Batch Forwarded Transaction Count
.00	Batch Forwarded Balance

Clear SD EMV File

Used only when EMV enable devices are used.

1. Turn the control lock to the **Z** position.
2. For non-debit applications: Enter **5 2 3**, press **SUBTL**.
3. After a brief pause, the message "Success" displays momentarily.

Reset Mode Procedures

Datatran Function Table

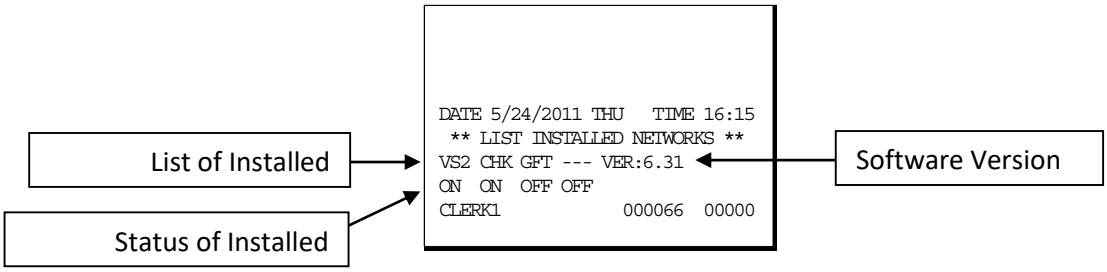
Function	Procedure
Initialize EFT	Z-Mode: Enter 500, press SUBTL
Open Batch	Z-Mode: Enter 501, press SUBTL
Close Batch	Z-Mode: Enter 502, press SUBTL
Clear Current Batch	S-Mode: Enter 503, press SUBTL
Change Batch Number	Z-Mode: Enter 504, press SUBTL
Issue Local Total	Z-Mode: Enter 505, press SUBTL
Issue Transaction	Z-Mode: Enter 506, press SUBTL
Issue Batch Status	Z-Mode: Enter 507, press SUBTL
Dial In Load	Z-Mode: Enter 508, press SUBTL
Dial Out Load	Z-Mode: Enter 509, press SUBTL
Tip Entry	Z-Mode: Enter 510, press SUBTL
Pin Pad Initialize	Z-Mode: Enter 511, press SUBTL
Close Batch with Debit	Z-Mode: Enter 512, press SUBTL
DataTran Diagnostics	Z-Mode: Enter 513, press SBTL
Log File Report*	Z-Mode: Enter 514, press SBTL
Voice Authorization	Z-Mode: Enter 515, press SBTL
Clear SD EMV File	Z-Mode: Enter 523, press SBTL

*The “Log File Report” records each time the “Issue Transaction” (report 506) is generated. When the “Log File Report” reaches 20 entries, the error message “Log File Full” is displayed when a “Issue Transaction” (report 506) is attempted. The “Log File Report” entries clear when the “Log File Report” (report 514) is taken.

Initialize EFT

Z-Mode: Enter **5 0 0**, press **SUBTL**

Select Initialize EFT to verify communications, software versions and installed networks.



Open Batch

Z-Mode: Enter **5 0 1**, press **SUBTL**

The message "WAITING RESP." displays momentarily, then the message "REPORT MODE" returns. The message "BATCH WAS OPENED SUCCESSFULLY" is printed.

Clear Current Batch

S-Mode: Enter **5 0 3**, press **SUBTL**

The clear batch command erases all the current batch transactions from the Datatran memory even if they have not been settled. After changing the card masking option (Print Option #34) *A LOCAL TRANSACTION INQUIRY should be printed prior to clearing the batch.* This will ensure that the operator has the transaction detail to re-enter if required.

This operation should only be done under the direction of DATACAP.

Change Batch Number

Z-Mode: Enter **5 0 4**, press **SUBTL**

At the "ENTER BATCH NO" message, enter the new number, press **CASH**.

The change batch number command is used to assign a new batch number to an existing batch. It is used with certain credit card processors to rectify settlement problems. It is used infrequently. (Attempt to change batch number will be denied if bank does not allow the feature.)

Issue Local Total

Z-Mode: Enter **5 0 5**, press **SUBTL**

This report is added for ease of customer balancing actual totals in the Datatran to the system wide reports. A summary of each kind of credit card and a batch total should match the totals within the ER-900 report before the Settle Batch is attempted.

```
DATE 5/24/2011 WED   TIME 10:55
  ****LOCAL  TOTAL REPORT ****
AMEX           .00 0
VISA          120.32 5
MASTER         .00 0
DISCOVER       .00 0
PRIVATE LABEL  .00 0
DINERS         .00 0
JCB            .00 0
DEBIT          .00 0
TOTAL         120.32 5
CLERK 1         000069   00000
```

Issue Transaction

Note: If card masking is set to No (Print Option #34) you will be prompted to enter a password. Contact CRS Technical Support if you have questions about password access.

To run the Issue Transaction report, turn the key lock to Z, enter 506, press SUBTL.

The Local Transaction Report contains details of each transaction in the current batch.

Example

(See Appendix for report key.)

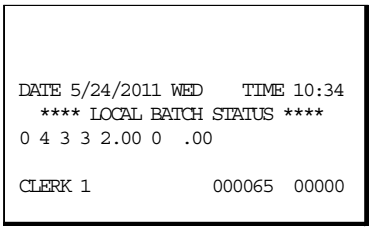
```
DATE 5/24/2011 WED    TIME 10:59
*** LOCAL TRANSACTION REPORT ***
1 A 54 ************6301 0501 1 V
ITAL6 * 100.00 * * * * * * 4 * 052
604 113803 5 @ NY * * 00 * * D 1
00 00 * * * 00001 * * * * * 0524
04 113803 * * * * 00 *
CLERK 1          000070   00000
```

Issue Batch Status

Z-Mode: Enter **5 0 7**, press **SUBTL**

The Local Batch Status Report also prints when a batch is closed.

See Local Batch Status Explanations



Local Batch Status Explanations:

(From Left to Right)

O	Batch Status: C = Closed, O = Open, X = Incomplete
4	Batch Number
3	Batch Transaction Number
3	Batch Item Count
2.00	Batch Balance
0	Batch Forwarded Transaction Count
.00	Batch Forwarded Balance

Dial In Load/Dial Out Load

These functions apply only to legacy DataTran equipment. Perform if instructed by Datacap support. You will be required to enter the phone number and terminal I.D.

Z-Mode: Enter **5 0 8**, press **SBTL** (Dial In Load)

Z-Mode: Enter **5 0 9**, press **SBTL** (Dial Out Load)

DataTran NoLoad/AutoLoad Notes/TwinTran

NoLoad

Parameters managed at the processor host, not in the DataTran. For installation, changes, exchanges, call the processor, tell them the unique "mac" id, run tests and begin operations.

AutoLoad

Parameters managed on PSCS, Datacap's web-based load system. Parameters are downloaded to the DataTran upon first use and for reloads on demand.

TwinTran

When a TwinTran is first installed, the dealer *must do a Dial Out Load through the IP connection*. If, for any reason, the internet is not available, the device cannot be loaded. If it is being installed at a location where the Internet is not currently operational and the customer wants to use the dial out method for approvals, the procedure below must be done at a location where the internet is working.

To load a TwinTran using a Sam4s register:

With the TwinTran connected to the register and an active Ethernet line, enter into the Dial Out mode. At the Phone number field enter the number "1". If the register uses the code entry method for alpha characters enter the 3-digit code (049). At the Enter ID prompt, enter the serial number of the TwinTran. Select Tone phone connection. The TwinTran will call Datacap's host PC and load itself. This takes approximately 20 seconds. After the TwinTran is loaded, one successful credit transaction must be done. After that the unit can be connected as the customer wishes.

Pin Pad Initialize

Z-Mode: Enter **5 1 1**, press **SBTL**

Initializes the pin pad. Perform at the time of installation or as part of pin pad troubleshooting procedures.

DataTran Diagnostics

This feature is available with newer Datacap "Tran" devices.

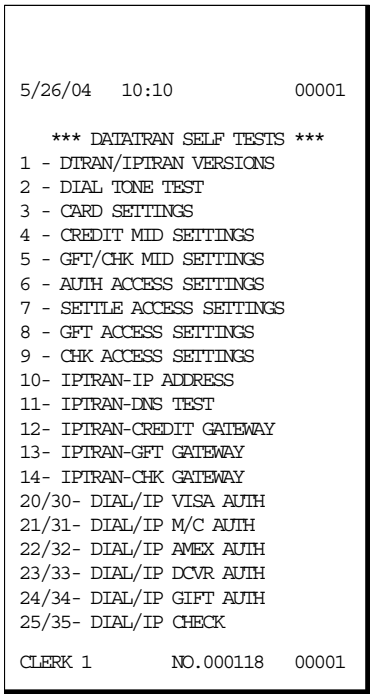
Note: Use these commands with the assistance of a Datacap support representative.

Datatran diagnostic commands are functions built into each Tran series model that assist an installer or operator troubleshoot problems related to communications, networking or merchant parameters.

To Receive a List of Available Tests for the Connected Tran

1. From **Z-Mode**: Enter **5 1 3**, press **SBTL**
2. Enter **0** then press **CASH**

Test Number "0" returns a listing of tests that are available in the connected Tran application. The list of available diagnostic commands will vary by Tran model; for example, DialTran devices will not support networking tests that pertain to IPTran and TwinTran. Tran device diagnostics include payment gateway connection tests, transaction tests, phone number settings and merchant parameter summaries that are appropriate to the particular Tran device. A sample list of functions is as follows:



To Execute a Diagnostic Test

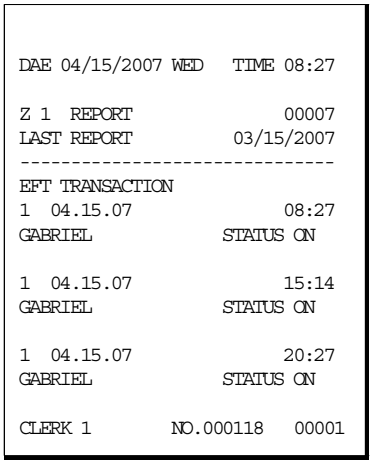
The responses to the diagnostic commands are variable in content and not intended to be interpreted by software. The printing of the diagnostic output is intended to have a human operator read the results that will be readily interpreted with the assistance of a Datacap support representative.

1. From **Z-Mode**: Enter **5 1 3**, press **SBTL**.
2. Enter the diagnostic report number and then press **CASH**.

Log File Report

The "Log File Report" is available beginning a software version 1.014. This report records each time the "Issue Transaction" (report 506) is generated. When the "Log File Report" reaches 20 entries, the error message "Log File Full" will display when a "Issue Transaction" (report 506) is attempted. The "Log File Report" entries clear when the "Log File Report" (report 514) is taken.

1. Turn key to the **Z-Mode**: Enter **5 1 4**, press **SBTL**



```
DAE 04/15/2007 WED   TIME 08:27

Z 1  REPORT              00007
LAST REPORT          03/15/2007
--------------------------------
EFT TRANSACTION
1  04.15.07              08:27
GABRIEL             STATUS ON

1  04.15.07              15:14
GABRIEL             STATUS ON

1  04.15.07              20:27
GABRIEL             STATUS ON

CLERK 1        NO.000118   00001
```

Post Authorization

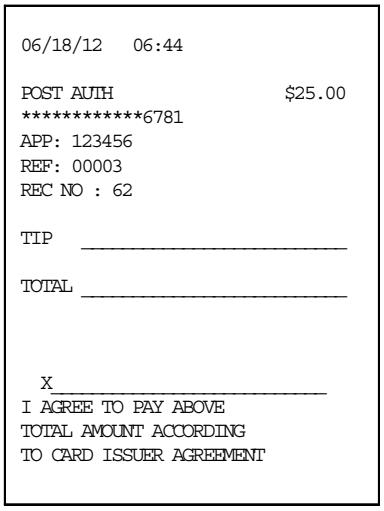
Z-Mode: Enter **5 1 5**, press **SBTL**

If electronic authorization is not approved and the merchant receives voice authorization, the transaction can be entered into the batch with this function. Note that this function does not adjust any other cash register totals or counters.

1. From **Z-Mode**: Enter **515**, press **SBTL**.
2. Slide the card.
3. Enter the sale amount and then press **CASH**.
4. Enter the approval code and then press **CASH**.
5. The draft prints and the sale is added to the batch.

NOTE: The approval code is an alphanumeric entry. You must use the alpha code chart to determine the numeric entries. For example, the approval code "VITAL8" would be entered as "086 073 084 065 076 056" if you are using alpha code entry. If you are using the alpha overlay, type the code on the overlay.

Sample Draft



Local Transaction Report Key

A B C D E F G H I J K H I J K L M N O P Q R S T [U V WX Y Z AA BB]

Field	Description	Min	Max	Type
A	Transaction Sequence Number	1	5	Numeric
B	Transaction Status	1	1	Alphanumeric
C	Network Transaction Code	1	3	Alphanumeric
D	Credit Card Account Number	1	38	Alphanumeric
E	Expiration Date	4	4	Numeric
F	Card Reader Flag	1	1	Numeric
G	Approval Code	1	16	Alphanumeric
H	Reference Number	1	16	Alphanumeric
I	Transaction Amount	3	11	Numeric
J	Operator ID	1	10	Alphanumeric
K	AMEX Category or Product Code	1	10	Alphanumeric
L	Arrival Date	3	6	Numeric
M	Departure Date	3	6	Numeric
N	Gratuity Amount	3	11	Numeric
O	Media Type	1	2	Numeric
P	Special Program Code	1	1	Numeric
Q	Transaction Date	3	6	Numeric
R	Transaction Time	4	4	Numeric
S	Authorization Source Code	1	1	Numeric
T	Card Holder ID	1	1	Numeric
U	PS2000 or MIC Payment Service Indicator	1	1	Alphanumeric
V	PS2000 Transaction ID or	15	15	Alphanumeric
MIC Banknet Reference Number		9	9	Alphanumeric
MIC Banknet Authorization Date		4	4	Numeric
MIC POS Entry Mode		1	1	Alphanumeric
MIC Mag Stipe Error Code		1	1	Alphanumeric
W	PS2000 Validation Code	4	4	Alphanumeric
X	Authorization Response Code	2	2	Alphanumeric
Y	PS2000 Authorization Currency Code or	3	3	Alphanumeric
MIC Entry Mode Change Indicator		1	1	Alphanumeric
MIC Track Data - CVC Error		1	1	Alphanumeric

MIC	Track Data - Error Code	1	1	Alphanumeric
Z	Merchant Category Code	2	2	Alphanumeric
AA	Entry Mode	2	2	Alphanumeric
BB	Original Authorized Amount	3	11	Numeric

Local Transaction Report Field Definitions

A. Transaction Sequence Number: The Datatran will use this field to return the internal sequence number assigned to each accessed transaction.

B. Transaction Status: The Datatran will use this field to return the current status of each accessed transaction.
Allowed values: “A” = Authorized but not captured, “C” = Captured, “F” = Forced Entry, or “V” = Void.

C. Network Transaction Code: When available, the Datatran will use this field to return the service provider’s code assigned to each accessed transaction.

D. Credit Card Account Number: The Datatran will use this field to return the card account number used in each accessed transaction.

E. Expiration Date: The Datatran will use this field to return the expiration date of the credit card used in each accessed transaction.
Format: “YYMM” or “MMYY” (“YY” = year and “MM” = month).

F. Card Reader Flag: The Datatran will use this field to return the type of account number entry used in each accessed transaction.
Allowed values: 0 = Hand entered account number, or 1 = Entered by card reader.

G. Approval Code: The Datatran will use this field to return the approval code of each accessed transaction.

H. Reference Number: When available, the Datatran will use this field to return the reference number of each accessed transaction.

I. Transaction Amount: The Datatran will use this field to return the sales amount of each accessed transaction.
Format: -9999999.99 (decimal point required).

J. Operator ID: When available, the Datatran will use this field to return the cashier or operator ID number entered in each accessed transaction.

K. AMEX Category or Product Code: When available, the Datatran will use this field to return the American Express product or category code of each accessed transaction.

L. Arrival Date: When available, the Datatran will use this field to return the customer’s arrival date entered in each accessed transaction.
Formats: “MMDDYY” (“MM” = month, “DD” = day, and “YY” = year).

M. Departure Date: When available, the Datatran will use this field to return the customer’s departure date entered in each accessed transaction.
Formats: “MMDDYY” (“MM” = month, “DD” = day, and “YY” = year).

N. Gratuity Amount: When available, the Datatran will use this field to return the gratuity amount entered in each accessed transaction.
Format: -9999999.99 (decimal point required).

O. Media Type: The Datatran will use this field to return the media type used in each accessed transaction:
   2 = American Express 6 = Private Label
   3 = Visa 7 = Diner's Club or Carte Blanche
   4 = MasterCard 8 = JCB
   5 = Discover 9 = Debit

P. Special Program Code: When available, the Datatran will use this field to return the special program code entered for each accessed transaction.

Q. Transaction Date: The Datatran will use this field to return the date of each accessed transaction. Formats: "MMDDYY" ("MM" = month, "DD" = day, and "YY" = year).

R. Transaction Time: The Datatran will use this field to return the time of each accessed transaction. Format: "HHMM" ("HH" = military hours and "MM" minutes).

S. Authorization Source Code: When available, the Datatran will use this field to return the Authorization Source Code of each accessed transaction.

T. Card Holder ID: When available, the Datatran will use this field to return the Card Holder ID type of each accessed transaction.

U. Payment Service Indicator: When available, the Datatran will use this field to return the Payment Service Indicator (also referred to as the ACI field) of each accessed transaction.

V. Transaction ID: When available, the Datatran will use this field to return either the PS2000 Transaction ID number or MIC data of each accessed transaction.

W. Validation Code: When available, the Datatran will use this field (also known as the ACI field) to return the validation code of each accessed transaction.

X. Authorization Response Code: When available, the Datatran will use this field to return the authorization response code of each accessed transaction.

Y. Authorization Currency Code: When available, the Datatran will use this field to return the authorization currency code of each accessed transaction.

Z. Merchant Category Code: When available, the Datatran will use this field to return the merchant category code of each accessed transaction.

AA. Entry Mode: When available, the Datatran will use this field to return the entry mode of each accessed transaction.

BB. Original Authorization Amount: When available, the Datatran will use this field to return the original authorization amount of each accessed transaction.
   Format: -9999999.99 (decimal point required).

Glossary

Activity Count

The activity counter increments each time an entry is made on a particular PLU, or function key. The counter prints on the appropriate reports.

Cancel

Press the CANCEL function to abort a transaction in progress. All current items are removed (voided).

Cash Declaration

This option forces the operator to count the cash drawer and input the results before the financial report can be taken. Absentee owners may want clerks or managers to declare the drawer counts to insure that all cash is deposited, regardless of overages, or shortages. As an added benefit, the overage or shortage amount is calculated and printed on the financial report.

Clerk

Sales clerks are individuals who are responsible for selling the merchandise to the customer. Typically, management wants to know merchandise sales levels for each clerk, in order to monitor productivity, account for cash and other media, and/or pay commissions. The default program provides operation for 15 clerks, however up to 99 different clerks can used by changing the default memory allocation.

Compulsory

When an operation is programmed compulsory, the appropriate entry must be performed in order to complete the operation.

Compulsory Amount Tendering

This forces the operator to input the tender, rather than pressing a payment key directly. The change will always be computed by the register when a customer tenders an amount greater than the total due. Compulsory tendering will reduce cashier change errors.

Compulsory Condiment

When a kitchen printer, or requisition system is used, the merchant may wish to force the entry of a condiment or instruction for specific items. If compulsory condiment status is set for a specific PLU, then a condiment PLU must follow the entry of the item.

Compulsory Drawer

With compulsory drawer enabled, the clerk cannot begin a new transaction until the drawer is closed. This simple feature was designed to teach cashiers the habit of closing the cash drawer after each transaction. You'll reduce potential errors, theft and fraud that can take place when your cashier works out of an open drawer.

Compulsory Number Entry

This option forces the operator to enter a reference number (using the #/NS key) before a PLU entry can be made or a transaction finalized with a Charge key. The number could represent an SKU number that would be tracked manually, or other data such as a customer count.

Consecutive Number

A sequential number is printed on each receipt issued. This is not a "customer count" as this number is incremented for non-sales activity such as no-sales and reports. A count of revenue generating transactions (true customer count) is printed with the Net Sales total on the financial report.

Currency Conversion

Use the currency conversion function to convert and display the value of the transaction in foreign currency. Only cash tender is allowed after pressing the currency conversion function. Change is calculated and issued in home currency.

Decimal Multiplication

If you sell weighed goods, yard goods, or any merchandise sold in fractions of a unit, the decimal multiplication feature calculates each transaction quickly and accurately. For example, if your customer selects 4.75 pounds of an item sold at $1.59 per pound, you enter 4.75 on the numeric keypad, press the X/TIME (multiplication) key, then enter the price per pound and press the appropriate PLU key.

Default Program

The original program installed in the ER-900 Series. The register has a default program which makes it operational after a memory clear. Nearly all option, rate, and status programs are set to zero as the default condition.

Department

Note: The ER-900 Series uses price look-ups (PLUs) to perform the function of traditional cash register departments. PLU's may be registered directly on the keyboard (like traditional departments) or indirectly by entering the item or PLU number and then pressing the PLU key.

Electronic Journal

The ER-920 and ER-925 do not provide a journal printer; the ER-940/ER-945 and ER-915 provide a traditional journal printer. Today many systems, even expensive PC-based systems do not print a traditional sales journal. For business records, a copy of daily financial summaries is usually all that is needed. Like some of the more expensive POS systems, the SAM4s ER-900 Series has the capability of storing a sales journal in memory. The electronic journal can be reviewed and discarded, saved to an SD card or polled by a PC for archival. When ECR memory reserved for electronic journal is full, current records are saved and old data is discarded.

Error Condition

An error condition signals that mis-operation has occurred. It is identified by an audible tone and an error descriptor appearing on the display.

Error Correct

An error correct operation voids the last item entered, it must be used within a sale.

Flash ROM

Flash ROM is used by the manufacturer to contain the program that runs the register. Flash ROMs maintain memory when power is off, allowing the register to be especially stable and reliable. In the case that the register's program is improved, or updated, the Flash ROM can be updated by a qualified service technician through a utility in the register.

Food Stamp

Note: Many areas now administer food stamp payments through EBT cards, rather than traditional food stamp coupons. Beginning at software version 1.030, the ER-900 Series is capable of accepting EBT electronic payments. Consult your SAM4s dealer for more information.

Merchants who accept food stamp payments have the responsibility of accepting food stamps only for food stamp eligible merchandise.

The SAM4s ER-900 Series offers a sophisticated routine to separate food stamp eligible items and accept the appropriate payments. First, each PLU is pre-programmed with food stamp eligibility status. If the customer is paying by food stamps, the operator can then recall and display the food stamp eligible total. Depending upon local rules, sales tax can be forgiven on any taxable food stamp eligible item. Change less than one dollar from food stamp tender is applied to non-food stamp eligible items, or issued in cash change. If both cash and food stamp change is due, the register displays both types of change due.

Using this system, all food stamp items are automatically sorted, with change and tax calculated by the register. Thus, a potentially confusing transaction can be handled quickly with little risk for errors.

Gallonage

To simplify gasoline transactions, PLUs can be designated to calculate gallons sold on fuel purchases. The price of the fuel sold is entered as it would be in a normal "open" PLU. However, the price per gallon of fuel is entered where the PLU preset price is normally maintained. When fuel is sold, the register will refer to the programmed price per gallon and calculate the number of gallons sold. Both the gallons pumped and dollar amount of the gas purchase are conveniently printed on the customer receipt and sales journal. This provides all the necessary information for a customer that needs a receipt for gas purchases. The total of gallons sold is also maintained on the appropriate PLU report, in the place of the PLU item counter. Several gallonage PLUs could be placed on the keyboard to maintain records for different pumps, or types of fuel. Thus, the dollar and gallon totals can provide a useful security check against separate pump totals.

Groups (PLU Groups)

Groups are used to organize sets of items. For example, in a restaurant Grill Items, Drinks, and Ice Cream items might be separated into different groups. Up to 99 group totals are available. Group reporting is available on the group report.

HALO

The high amount lock-out (HALO) limits the amount allowed to be entered in a PLU, or function key.

HASH

Merchants often sell non-merchandise items, such as lottery tickets, or bottle deposits, that they do not wish to account for as reportable revenue. HASH PLUs are useful to account for non-revenue income. They will add to the appropriate totals on the PLU report, they will add to the transaction totals, and they will be accountable for in drawer totals, but they will not affect the merchants, NET SALES, GROSS SALES or NON-RESETTABLE GRAND TOTAL. As a system option, HASH can be defined to not add to the transaction (NON-ADD).

Link (PLU Link)

Use linked PLUs if you wish the registration a PLU to automatically cause the registration of another PLU (for example to automatically add a bottle deposit.) Linked PLUs are set with Program 350, PLU Link programming.

Macro

Macro keys may be programmed to record, and then later perform, up to 50 keystrokes.

For example, a macro key could be set to tender (preset tender) a common currency, such as $5 into the cash key.

Memory Allocation

Memory allocation is a program that determines how the system memory is divided to provide the correct features for your application. For example, you may require more or less clerk memory, PLUs, or electronic journal memory. Memory allocation allows you to maximize the features you need while minimizing the features you do not need.

Mix & Match

Retailers often offer discounts when multiples of different items are purchased. For example, the offer: “save $5 on any three bottles of wine” can be handled by a mix and match discount. The default ER-900 Series can accommodate up to 10 different mix and match discounts, the total can be increased to a maximum of 100 through memory allocation.

Multiple Receipts

In some cases, for example where a mail-in rebate is offered, an extra copy of a receipt is needed. If allowed, the receipt must be re-printed immediately, before another transaction is started.

Negative PLUs

As you program PLUs, you will find a setting to make them negative (normally they are positive). Positive PLUs are used for items that add to the sale. Negative PLUs are used for items that subtract from a sale, like individual store coupons or bottle deposit credits.

NLU

Number Look-Up (NLU) refers to PLU code that is accessed when a Keyboard PLU is used. In the default program each Keyboard PLU will look up the appropriate numeric PLU, beginning with PLU #1 for Keyboard PLU key #1 and continuing sequentially through the keyboard.

However, this numbering sequence may be impractical for some applications. For example, Keyboard PLU #1 may represent a can of *Diet Pepsi*. The merchant may wish to have the Keyboard PLU look up the UPC code number for *Diet Pepsi*, which is "120500". Using this program, you can change the Number Look-Up (NLU) for the keyboard PLU to any 15-digit number you choose.

No Sale

No sale is an operation to simply open the cash drawer. No sales are counted and reported on the financial report.

Not Found PLU

For small merchants, the ER-900 Series can build a PLU file "on the fly". Each time an item is scanned (or entered by PLU number) that is not in the PLU file, the operator is prompted to enter the price and other options for the item. At the end of the day, the "Not Found PLU Report" will allow the manager to verify the prices and update the PLU file as needed. T

Open (PLU)

Open PLUs accept price entries, rather than register a preset price. To prevent errors, you may set a high limit (HALO) for open entries.

Override

Override is an operation used to bypass a programmed price or entry limit (HALO).

Over-Tendering/Under-Tendering

When a payment is made less than the amount due, it is called an under-tender. After an under-tender, the register calculates and displays the remaining balance for the sale. Additional payments must be made until the total due is satisfied. When the sale is fully paid, the cash drawer will then open and the receipt is completed. When a payment is made more than the amount due, it is called an over-tender. The register will compute and display the change due and the receipt will be completed. Note that register options can be set to allow or disallow over-tendering for check and charge payments.

Paid Out

The Paid Out key is used to track cash paid out of the cash drawer or to record pickups from the cash drawer.

PLUs

Price look-ups (PLUs) are accessed by indexing a code number and pressing the PLU key, or by pressing a keyboard PLU key. PLU's can be programmed with a preset or open price. PLU's record an activity count and dollar total on the PLU report. PLU sales may also report to a group.

Post Tender

Post tendering is available to help prevent cashier confusion when a customer decides to change the tender amount. When Post Tendering is allowed, the operator can re-enter a cash tender and the register will re-calculate the change.

To post tender after finalizing the sale, enter the cash amount presented by the customer and then press CASH. The amount of change due to the customer is then displayed. This is a calculation function only, and no totals or counters are updated by the use of this feature.

Preamble/Postamble Message

Programmable messages allow each merchant to customize his receipt with the store name, address, phone number, website or other critical identification information or advertising messages. The SAM4s ER-900 Series allows a preamble message of up to six lines, each with up to 24-characters, to be printed at the top of each receipt. A postamble of up to 6-lines of 24-characters can also be printed at the bottom of the receipt.

Preset (PLU)

When a PLU is pre-programmed or pre-set with a fixed amount, the preset amount will automatically register when the PLU is pressed or entered.

Preset Override

When a PLU is preset, it is possible to override the preset price with a different price. If the override function is set to be allowed in the PLU program, you can simply enter a new price and press the PLU key.

Receipt

A receipt is a printed tape given to a customer as a record of the sale transaction.

Received on Account

The Received on Account key is used to track cash received into the cash drawer or to record loans to the cash drawer.

Register Number

The number of the register can be set and printed on each receipt. If the merchant uses more than one register, or has more than one location, the register where a transaction took place or report was taken is easily identified.

Single Item

The transaction is finalized automatically when a single item PLU is registered as the first item in a sale. Single item status is used to speed transaction entry when an item is normally sold in a one-item sale, for example, a pack of cigarettes, a newspaper or an admission ticket.

Split Pricing

Often merchants price items in multiples, for example 3 for $1. The register will compute the price of items when the exact quantity is not purchased. If the customer chooses to buy 2 items at 3 for $1, enter 2, press the X/TIME key, enter 3, press the X/TIME key and then enter the price and the PLU. The register will compute the price for the items purchased.

Stock (PLU Stock)

Each PLU reports an activity counter. Normally the activity counter increments (adds) and is reset when a PLU Z-report is taken. You can choose to use the PLU activity counter as a stock counter. If used as a stock counter, each PLU activity will reduce the count. A separate program allows you to add to the stock count or enter a new stock count. Stock counts are not reset when PLU Z-reports are taken.

Surcharge (Item)

An item percent surcharge adds a percentage to the price of an item. This addition nets the PLU total.

Surcharge (Sale)

A sale percent surcharge adds a percentage to the entire sale.

Tare

Tares are container weights. If you are using the scale function, you can preset up to 5 different tare weights. The tare can be subtracted automatically when a specific PLU is registered, or manually inputting the tare number and pressing the TARE key can subtract the tare. Tare #5 can be programmed for entering tare weights manually.

Tax Computation by Rate/Tax Computation by Table

In the simplest method of tax calculation, the register is set with a tax rate (or rates) and the taxes are computed by a percentage calculation. In some cases, a tax that is entered as a percentage does not follow exactly the tax charts that apply in your area (even if the tax chart is based on a percentage). In these cases, we recommend that you enter your tax using tax table programming. This method will match tax collection exactly to the break points of your tax table.

Tax Exempt

Tax exempt is used to exclude the tax from an entire sale.

Tax Shift

Tax shift keys are used to reverse the tax status of a PLU entry.

Tender

A tender is the register operation in which the amount of the payment is entered. If the tender exceeds the amount due, the sale is finalized and change due is displayed.

Training Operation

Training operations do not add to PLU or function key totals. This allows an operator to practice making entries without updating sales totals. If you wish to perform training operations, designate one of the clerks for training. You must clear (Z) the register before the training clerk can be used. When that clerk is signed on, the register is in “training mode”.

Transaction Number

See consecutive number.

VAT

Value-Added Tax (VAT) is a tax collection system where a portion of the item's sale price is tax. VAT is different than most sales taxes where tax amounts are calculated and added-on to the sale. Value added taxes are included in the item price. Most locales in the USA do not use a VAT system, which is used in Canada and other nations.

Void

A void operation will erase a previous item entry. It must be used inside of a sale only.

X & Z Reports

X (examine) reads reports without resetting and Z (Zero) reads and resets your sales totals.

Manual Revision Record

Edition	Date Published	Revision Contents
1.0	9-09-2011	Initial Printing
1.1	9-19-2011	Corrected Function Key Descriptor Programming
1.2	10-07-2011	Clarified bitmap copy from register to SD procedure. Updated ECR model photos.
1.3	10/11/2011	Corrected: scale options; Drawer assignment options; Financial report descriptor table; sample reports.
1.4	11/15/2011	Initialize on all models can be done by power up with SUBTL key pressed. Updates now refer to Flash ROM rather than EPROM. Memory All Clear function clarified for raised-key models.
1.5	12/6/2011	Price/HALO programming instructions updated for second price level. Default values for system and print options identified. System option #39 value corrected.
1.6	12/28/2011	Programmability of Feed & Journal Feed keys clarified. Clarified Flash ROM Update by PC Instructions.
1.7	1/11/2012	Foreign Language descriptor system option #35 corrected: A value of 2=French descriptors.
1.8	1/18/2012	Updated to reflect feature changes released at software version 1.019. (Tax program sequence changes; selective uploading of program segments from an SD card; added option on print option #34 and option to disable line-finding on optional slip printer; added option on system option #40 to disable the not-found PLU operation; added EFT version print on RAM clear receipt.)
1.9	1/30/2012	Flash ROM update instructions updated.
1.10	3/2/2012	Power switch cover options, Flash ROM update by SD procedure clarified. Save reports on SD in .csv format. Added Level 1&2 Function key options.
1.11	3/14/2012	Flash ROM by PC Utility procedure clarified.
1.12	4/16/2012	RAM clear procedure clarified. Stock bitmap images for receipt information added (System Options 38-41).
1.13	6/11/2012	Added Print Option #42 for printing Electronic Journal at a remote printer. (Version 1.026)
1.14	6/20/2012	Post Authorization function added.
1.15	8/01/2012	Updated balancing formula.
1.16	8/03/2012	System Option #39 values corrected.
1.17	8/27/2012	System Option #24 values corrected.
1.18	8/30/2012	System Option #42 added to allow transactions over 200 items.

Edition	Date Published	Revision Contents
1.19	9/12/2012	Added EBT option to food stamp tender key with Version 1.030.
1.20	9/17/2012	Tip function description clarified.
1.21	11/16/2012	Flash Program file name changed from NEWNET.bin to ER900.bin
1.22	1/24/2012	Updated System Options #21, #22 and Subtotal Function key options to accommodate Canadian rounding on cash transactions.
1.23	2/18/2012	Updated EBT/Food Stamp Information.
1.24	5/3/2013	Cash Benefit function added to Charge function keys at version 1.030.
1.25	5/15/2013	Added explanation for manual card entry: Credit, gift EBT allowed, PIN debit not allowed. Clarified Tare Weight program entries.
1.26	5/31/2013	Quick Start Straight Tax Rate Programming Updated.
1.27	8/15/2013	Check Gift Card Balance procedure added.
1.28	12/18/2013	Standard memory expanded from 4MB to 16MB. See “Memory Allocation” to determine maximum feature limits.
1.29	3/31/2014	Added print option: “Print tax charged on last serviced item” to Print option #7. Note updated at PLU Delete Program: Not Found PLU report must be cleared first.
1.30	6/5/2014	Added “Not Found PLU Report” to report table.
1.31	6/19/2014	Added Print Option #29, Print on Kitchen Printer by Item.
1.32	7/01/2014	Corrected system option reference (option #31) for PLU Descriptor Programming by alpha code. Updated version # in footer.
1.33	8/14/2014	Not Found PLU Procedure updated. Clear function required after PLU error.
1.34	10/7/2014	Added features associated with version 1.053: Price Change key added; Print Options 43 and 44 added.
1.35	10/10/2014	Correct system option #34 to say: “Type 3” instead of “Type 2”. Updated barcode explanation diagram for option #34.
1.36	2/26/2015	Corrected Tare Weight program instructions.
1.37	5/6/2015	New features in Version 1.056: Age Verification and print option to “Print date of last Z report on Z report”.
v1.38	12/14/2016	Added new options in version 01.072: Return key; Stay Down and Print Option “Print Returns and Voids on Financial”.
v1.39	6/1/2017	Updated Function Keys List. Corrected Print Options.
v1.40	9/21/2017	Updated Charge key options
v1.41	3/19/2018	Added ER-915 information; Print Option #47 Print on Journal; Edited Tare Weight programming
v1.42	5/21/2018	Updated ER-915 information
v1.43	5/23/2018	Corrected ER-915 Memory Clear
v1.44	11/30/2018	Updated Scale Function key