SAM4S

SAM4s ER-900E Series Electronic Cash Register

Operator and Programming Manual

ER-945/920 Shown Above with Optional Card Reader

Sam4s ER-900E Series OP Manual v1.81

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 ports and improperly fitted covers and drawers.
4. Design Alteration Warning:
   Never alter or add to the mechanical or electrical design of the ECR. 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-900E Series

Note: Before using this ECR system for the first time, leave it powered on in the **REG** mode for at least twenty-four hours. This allows the Lithium battery which maintains the memory of the ECR while the power is off to charge completely. Proper disposal of batteries is required. Refer to your local codes for disposal requirements.

The ER-900/900E Series **E**lectronic **C**ash **R**egisters *(ECRs)* are available with Raised Keyboard or Flat Keyboard configuration. The "E" model ECR's have an additional LAN Port for DC Direct interface. There is no IRC on any of the ER-900/900E series ECR's.

This manual includes instructions for all ER-900/900 models. The keyboard and printer configuration define the model. All other features are the same, unless otherwise noted.

SAM4s ER-920/920E

- Flat 150-position Keyboard
- Receipt Printer

SAM4s ER-940/940E

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

SAM4s ER-925/925E

- 63-position Raised-key Keyboard
- Receipt Printer

SAM4s ER-945/945E

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

SAM4s ER-915/915E

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

Using This Manual

Note: Before using this ECR system for the first time, leave it powered on in the **REG** mode for at least twenty-four hours. This allows the Lithium battery, which maintains the memory of the ECR while the power is off, to charge completely. Proper disposal of batteries is required. Refer to your local codes for disposal requirements.

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 25, provides quick start steps to help you get up and running for basic applications.
- **"Operations"** on page 42, guides you through the basic operation sequences.
- **"Management Functions"** on page 96, explains manager controlled functions, along with reports and balancing information.
- **"X-Mode"** on page 96, is used for reading current totals on the ECR, turning the Receipt Off and On, and operation programmed as 'Under MGR Control", which require the Mode Switch to be in the **X** position to allow the operation.
- **"Z-Mode"** on page 97, is used to read and reset current report totals on the ECR, perform Datatran EFT operations and perform DC Direct setup and operations.
- **"System Reports"** on page 101 shows the report table, how to run reports, and saving reports.
- **"Sample Reports"** on page 105 provides a sample of each register report.
- **"S-Mode Programming"** on page 118 provides instructions for secure programming – usually done by the installing dealer prior to installation.
- **"P-Mode Programming"** on page 145 provides complete programming instructions, including PLU, function key programs, and system options. This section is recommended for use by store owners and managers. Call your SAM4s dealer if you find you need programming assistance.
- ***"EMV Integrated Payment"*** on page 247 provides important operation information for users where optional integrated electronic payments are done using a Datacap appliance.

The SAM4s ER-900E 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-900E, 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 key.

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

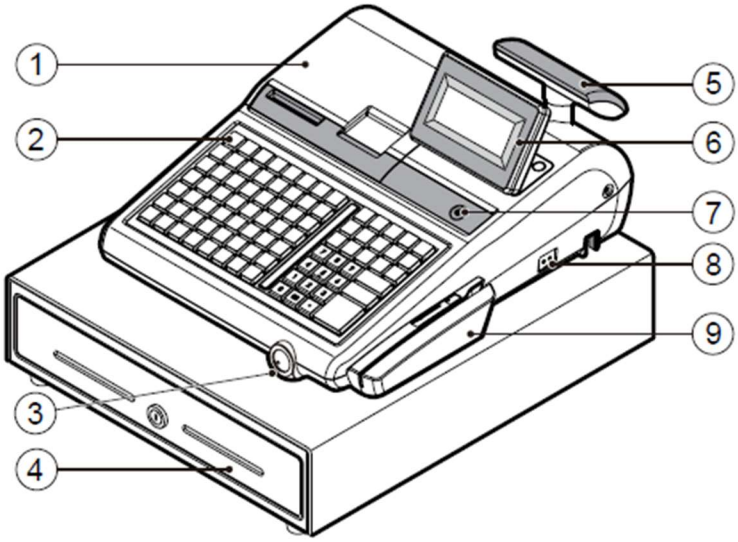
Programable Features

SAM4s ER-900/900E 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 Mode Switch.
- 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- 900E 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 allows for customized placement of functions, as they are needed. (Refer to “Function Key Descriptions" on page 42 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-900E 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.

Identifying Components



1 Printer Cover
2 Keyboard
3 Dallas Key (i-Button) – ***Not used in USA***
4 Cash Drawer
5 Customer Display (9-Digit LED)
6 Operator LCD Display (2-Line, 16-Character)
7 Mode Switch
8 Power Switch
9 MSR *(Optional)*

Operator Display

The ER-900/900E ECR's come with a two-line 16-character backlit LCD Operator 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	REQ. SUBTOTAL	PLU NO DATA ERR	PROMO ERROR
CLERK ERROR	CHECK OPEN ERR	AMOUNT CNT ERR	REQ. PASSWORD
LANTRAN ERR	NO VOID PLU	COMM ERROR	REQ. PORT SETUP
TIME ERROR	REQ PRESET VALUE	OVER LIMIT ERR	REQ. OPEN VALUE
INACTIVE ERROR	REQ. AMOUNT	X MODE ONLY	REQ. PAYMENT
NON ADD ERROR	INVALID FUNC.	ADD CHECK ERR	REQ. TABLE #
CONDIMENT ERROR	REQ. PBAL	REQ. EATIN FUNC	REQ. CHECK #
STOCK ERROR	ONLY ONE TABLE	DRAWER ERROR	REQ. VALID
REQ. GUEST #	RECPT PAPER END	SCALE ERROR	RECPT NEAR END
CLERK NO MATCH	COVER OPEN ERR	COMPULSORY TARE	CUTTER JAM ERR
REQ. DECLARATION	J PAPER END	OFF LINE ERROR	J NEAR END
REQ. ENDORSEMENT	POWER FAIL ERR	CONSOL OVER	CHARGE POST ERR

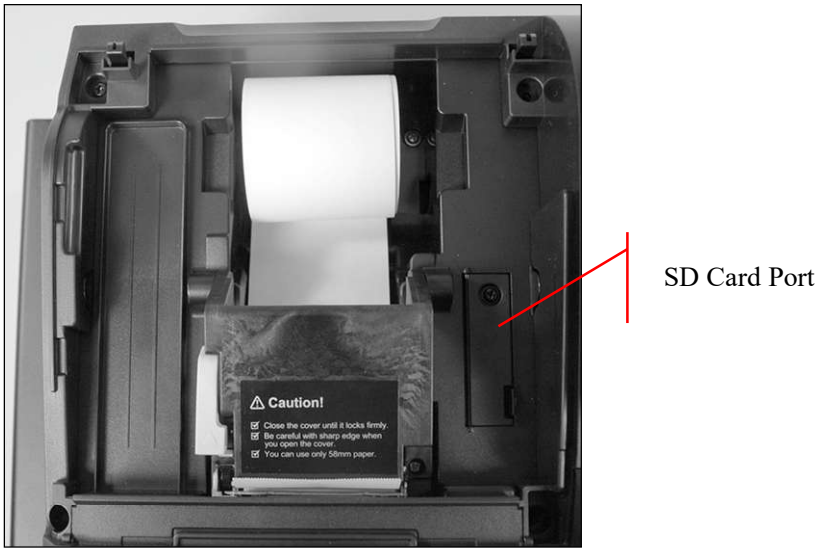
Customer Display

The ER-900 Series ECR also has a 1-Line, 9-Digit LED customer display. The rear customer display shows the quantity and price of the current item being registered.

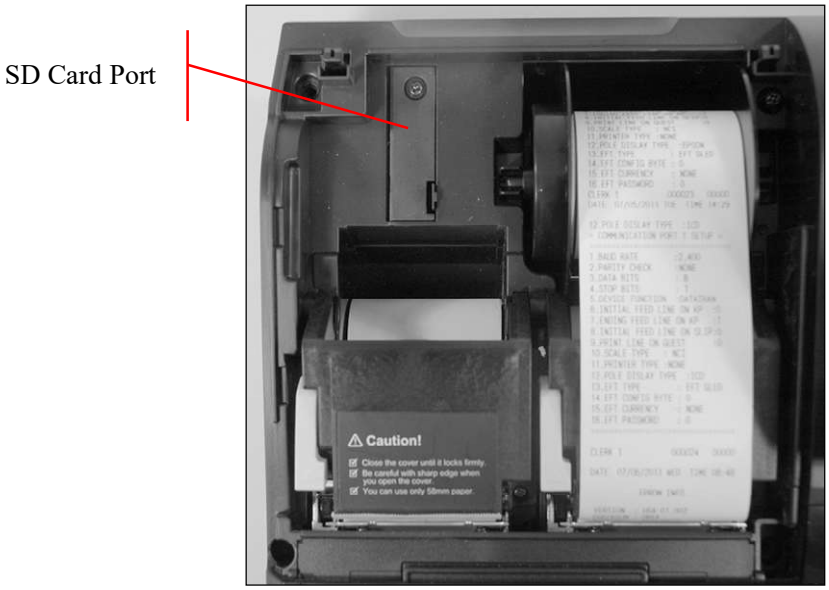
Printers & SD Card

ER-920E & ER-925E Models feature a single thermal receipt printer. The SD card port is located to the right of the printer mechanism. Remove the security screw to access the port. SD Cards must be formatted for FAT32 before using with the ECR. The ER-900E Series ECR's can support SD cards up to 2GB according to specifications.

CAUTION: 4GB SD cards worked when tested, however we cannot 100% recommend using a 4GB SD. Some dealers report that 4GB SD cards work well, some dealers report that 4GB SD cards do not work.



ER-915E, ER-940 & ER-945 Models feature separate thermal receipt and journal printers. The SD card port is located to the rear of the receipt printer.



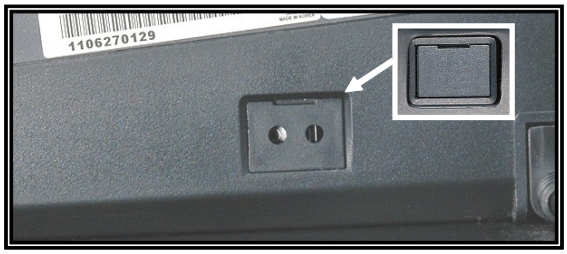
Printer Specifications

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

Power Switch

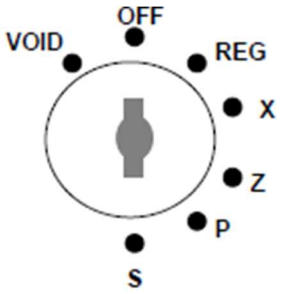
To prevent tampering or interference with the power switch, a protective cover is installed. Use a pointed device such as a pen to activate the switch when the cover is installed or simply pop off the cover to access the switch normally. For maximum protection, you can install the solid cover provided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

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



Mode Switch

The Mode Switch has 7 positions that are accessed with 5 keys. Each ECR is shipped with two full sets of keys.



Unmarked Position

Mode	Operation
VOID	Use to void (correct) transactions.
OFF	The register is inoperable.
REG	Use for normal registration of sales.
X	Use to read register reports.
Z	Use to read register reports and reset report totals to zero.
PGM	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. Refer to "Direct Sign-On" or "Coded Sign-On" on page 48 for a description of clerk operations.

Mode Switch Keys

The ER-900E includes two sets of keys that may be used to access the following Mode Switch positions.

Key	Accessible Positions
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 Mode Switch in the OFF or REG positions.

Connection Panel

The ER-900E Series ECRs comes standard with two DB9 RS-232C serial interface ports, and a 2nd Cash Drawer Port. The LAN port is available on the "E" model ECRs.; it is used with DC Direct integration.

The image below also shows the optional 2-Port Serial Board installed; this provides two additional RJ-45 type RS-232C serial port connections. *(CRS Item#: 501531)*

Keyboards

ER-920E/ER-940E Flat Keyboard

The ER-920E/ER-940E Flat style 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 exception of the Journal Feed key which can be reprogrammed on the ER-920E.

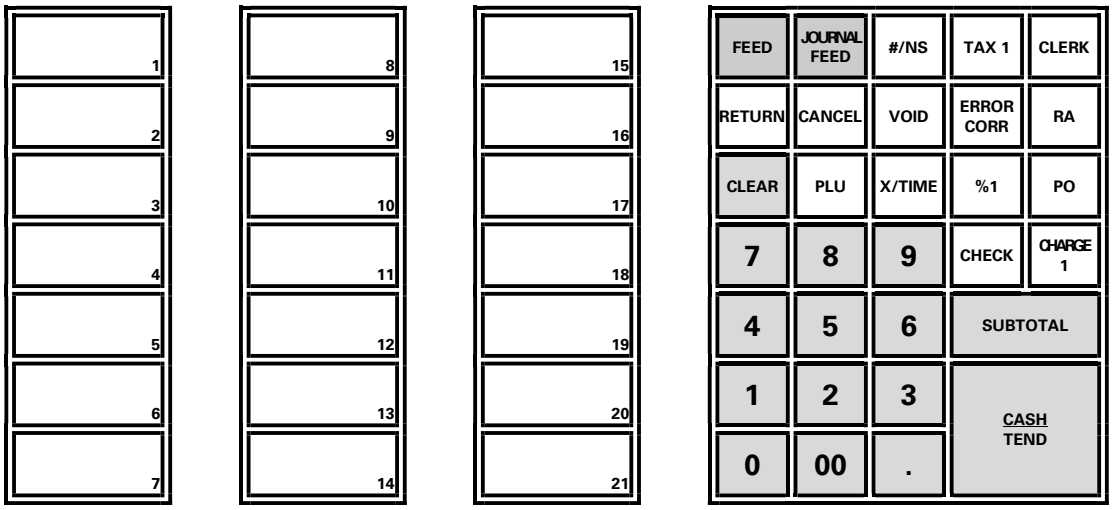
1	11	21	31	41	51	61	71	81	91	FEED	JOURNAL FEED	ERROR CORR	VOID	CLERK
2	12	22	32	42	52	62	72	82	92	%1	RA	PO	#/NS	RETURN
3	13	23	33	43	53	63	73	83	93	%2	TAKE OUT	EAT IN	DRIVE THRU	CANCEL
4	14	24	34	44	54	64	74	84	94	%3	CHECK #	SERVICE	TABLE #	PRINT CHECK
5	15	25	35	45	55	65	75	85	95	%4	ADD CHECK	TAX 1	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	SBTL
10	20	30	40	50	60	70	80	90	100	MACRO 5	0	00	.	CASH

ER-925E/ER-945E Raised Keyboard

The ER-925E/ER-945E Raised style include 98 key positions. The default keyboards include 21 PLU key locations 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 exception of the Journal Feed key which can be reprogrammed on the ER-925E.

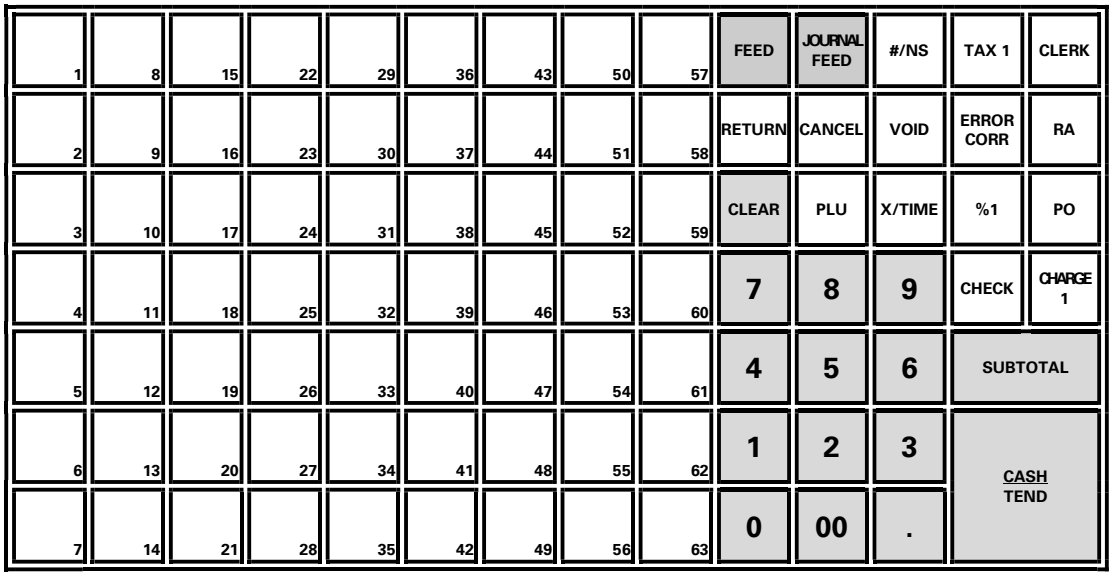
Note: In the default configuration, there are 21 double-width PLU keys. Under each key, the left-most key is inactive and the right-most key is active. The four-key sequence shown with the default configuration will set the keyboard in the default 21-PLU key configuration.



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

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

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

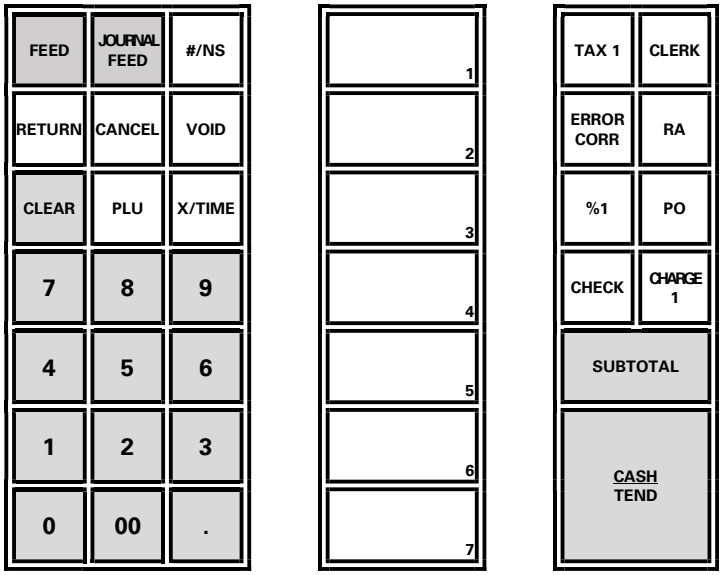


ER-915E Raised Keyboard

The ER-915E features a 63-key raised-key style keyboard. The default 7 PLU keyboard with the default legends and key assignments as shown below can be expanded to 14 PLU key locations.

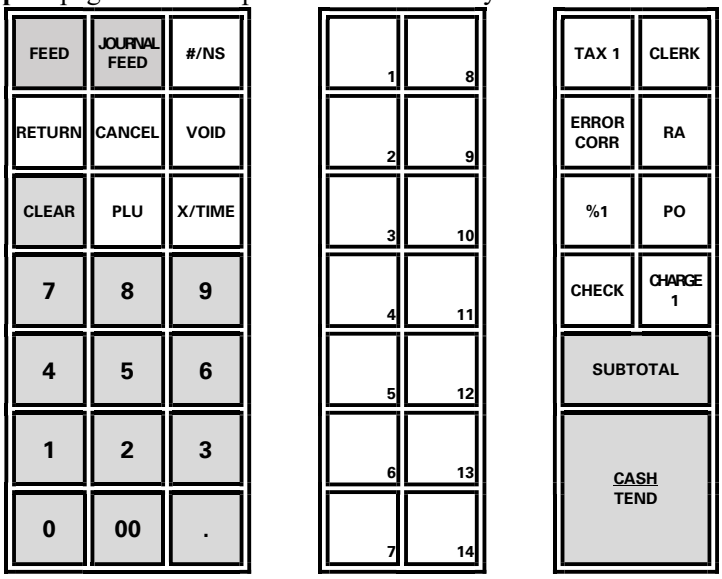
Shaded key locations are fixed and cannot be changed.

Note: In the default configuration, there are 7 double-width PLU keys. Under each key, the left-most key is inactive and the right-most key is active.



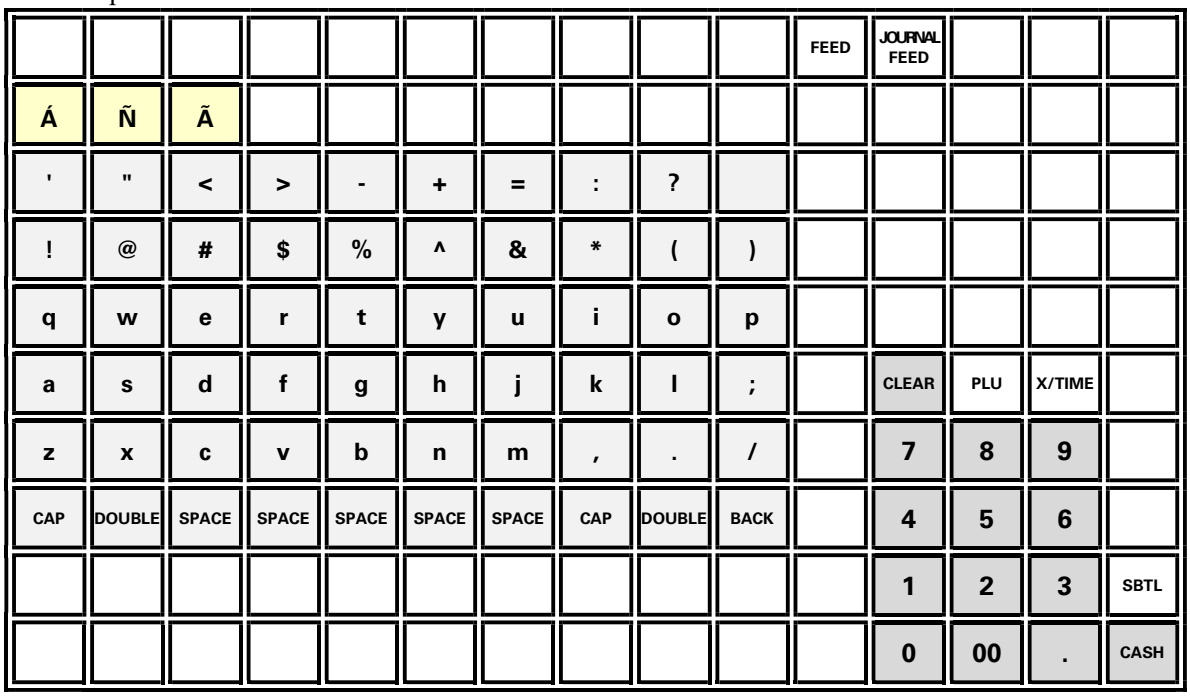
ER-915E Raised Keyboard - Expanded

Your authorized dealer can expand the keyboard to 14 PLU key locations as shown below. See ER-915E **14 NLU Keyboard Setup** on page 35 for this procedure. Shaded key locations are fixed and cannot be changed.



ER-920E/ER-940E Alpha Keyboard Overlay

Note: System Option 31: 'Program descriptors with overlay?' must be set to YES to be able to use the Alpha Keyboard. The Spanish characters Á Ñ Ã were added at v1.121

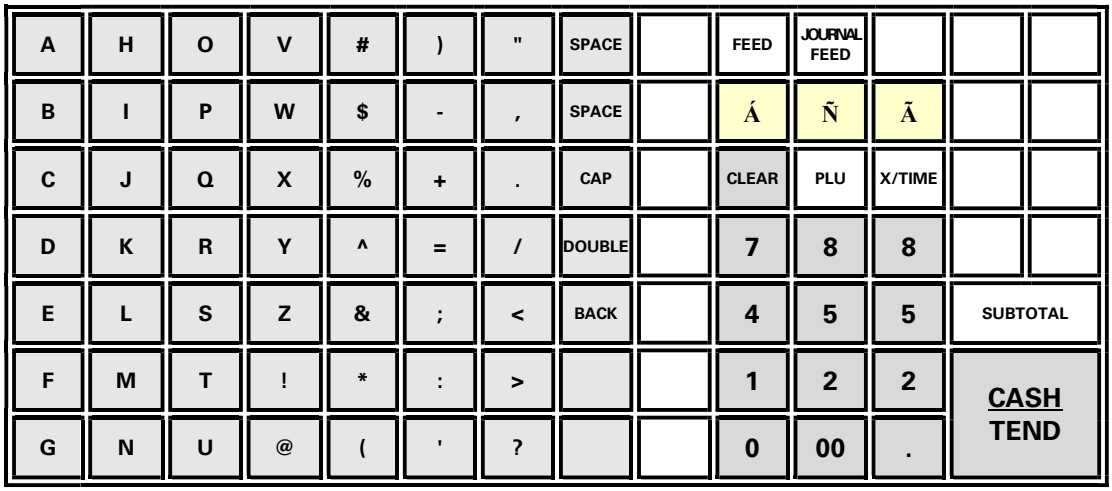


ER-945E/ER-925E Alpha Keyboard Layout

The ECR must be configured for the 63-key expanded keyboard format to use the alpha-keyboard descriptor programming. System Option 31: 'Program descriptors with overlay?' must be set to YES to be able to use the Alpha Keyboard.

If the keyboard is not expanded you must program descriptors using the alpha code entry method.

System Option 31: 'Program descriptors with overlay?' must be set to NO to program descriptors using the code entry method.



Getting Started

Quick Start Steps

Note: Before using this ECR system for the first time, leave it powered on in the **REG** mode for at least twenty-four hours. This allows the Lithium battery, which maintains the memory of the ECR while the power is off, to charge completely. Proper disposal of batteries is required. Refer to your local codes for disposal requirements.

Using the 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-900E 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

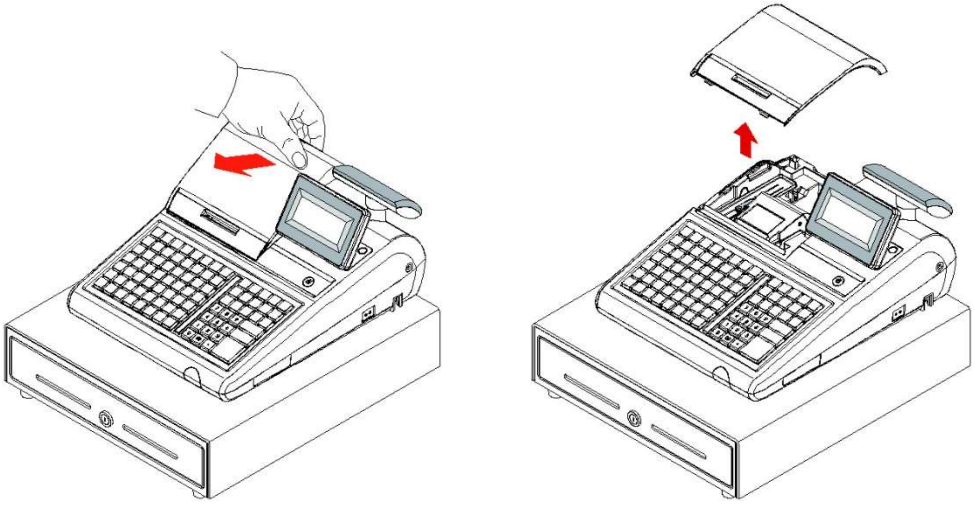
- Unpacking
    - Installing the Paper
- Clearing All Memory
- Keyboard Expansion
- Initial Clear
- Straight Percentage Tax Rate Programming
- Programming Tax Status for Keyboard PLUs
- Programming Price for Preset Keyboard PLUs
- Programming Descriptors for Keyboard PLUs

Unpacking

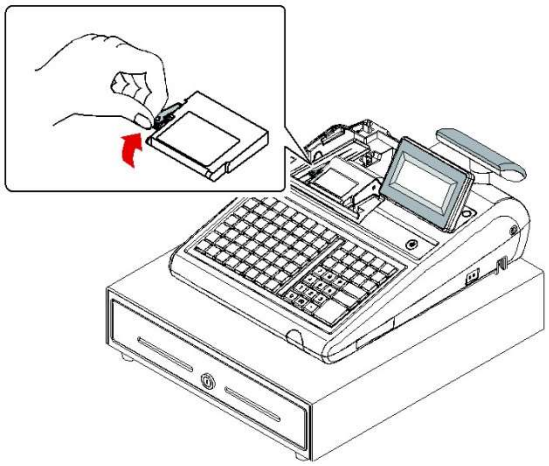
1. Unpack and unwrap the cash register.
2. Locate in the packing the following items:
    - 1 roll of paper
    - 1 rewind spindle (ER-940/ER-945/ER-915E only)
    - Two sets of control keys
3. Remove the cardboard protectors from the cash drawer.
4. Plug the register into a grounded outlet (three-prong),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

Installing the Paper

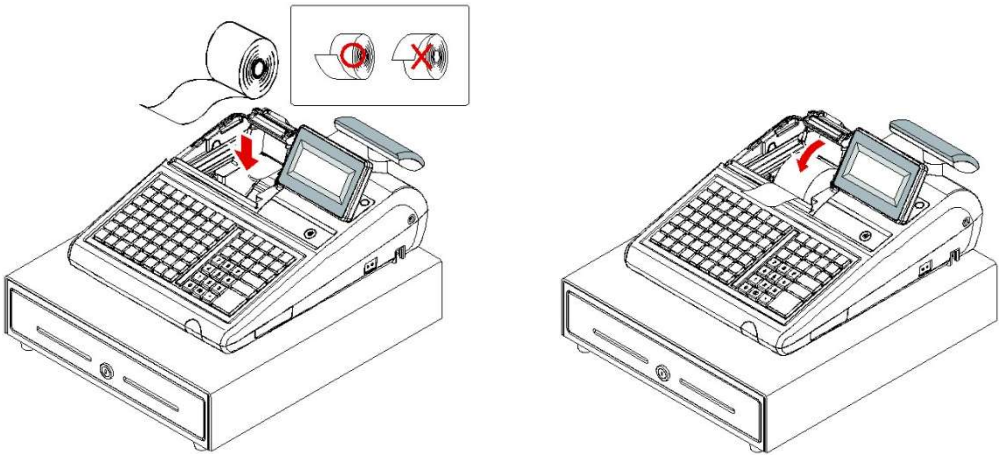
1. Remove the printer cover.



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

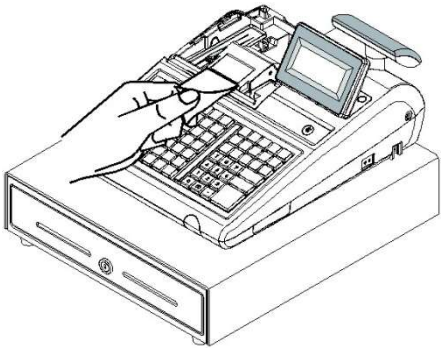


3. Ensure that the paper is being fed from the bottom of the roll and then close the paper cover slowly until it locks firmly.



4. Pass the leading edge of the paper through the tear-bar port.

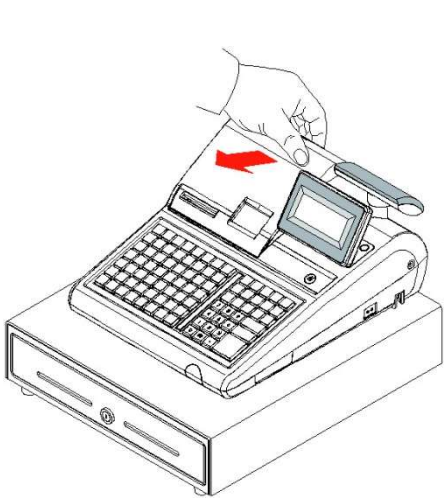
5. Tear off the excess paper. Replace the printer cover.

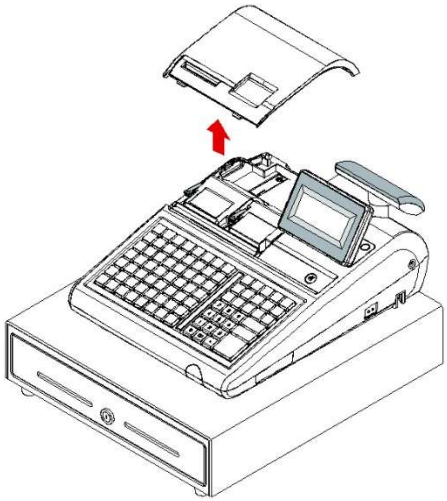


Models with Two Printer Stations

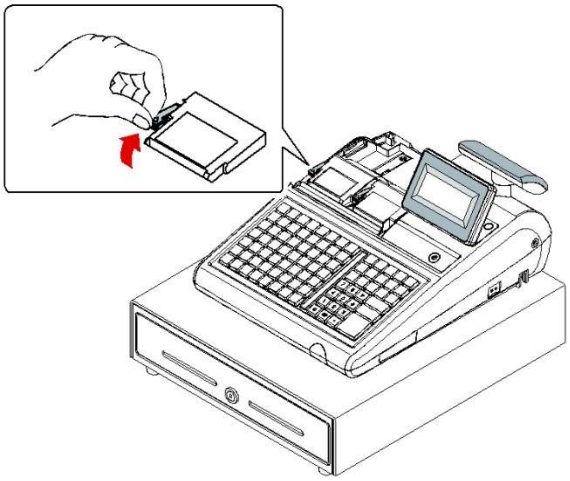
The ER-940, ER-945 and ER-915E models are equipped with separate printers for receipt and journal. Paper loading for these models is shown below:

1. Remove the printer cover.

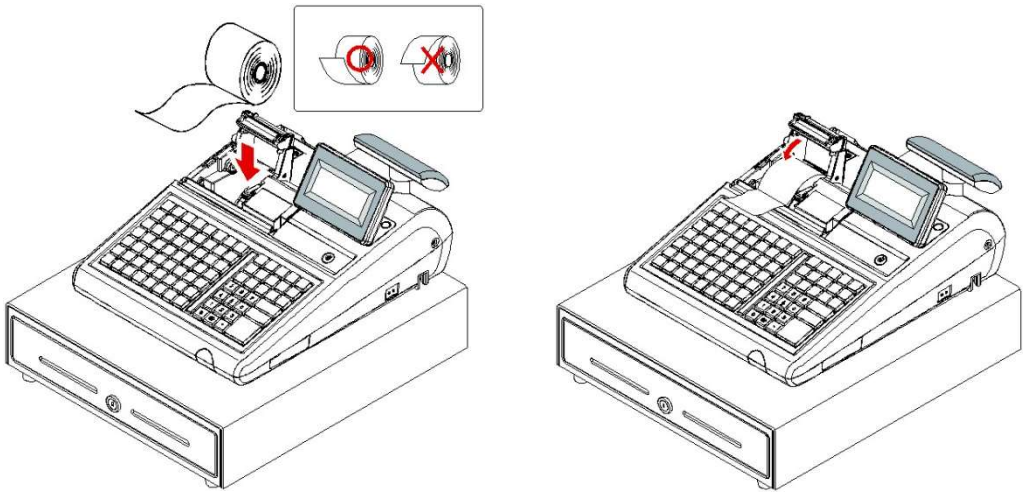




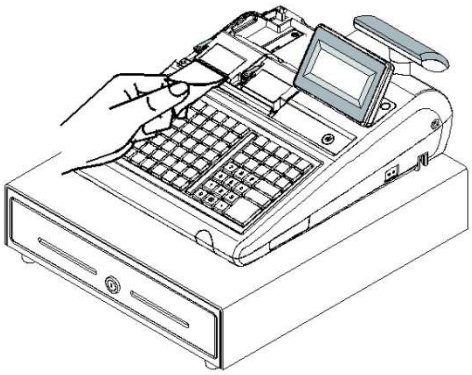
2. Push the blue cap lever and then lift up to open the receipt printer paper cover.



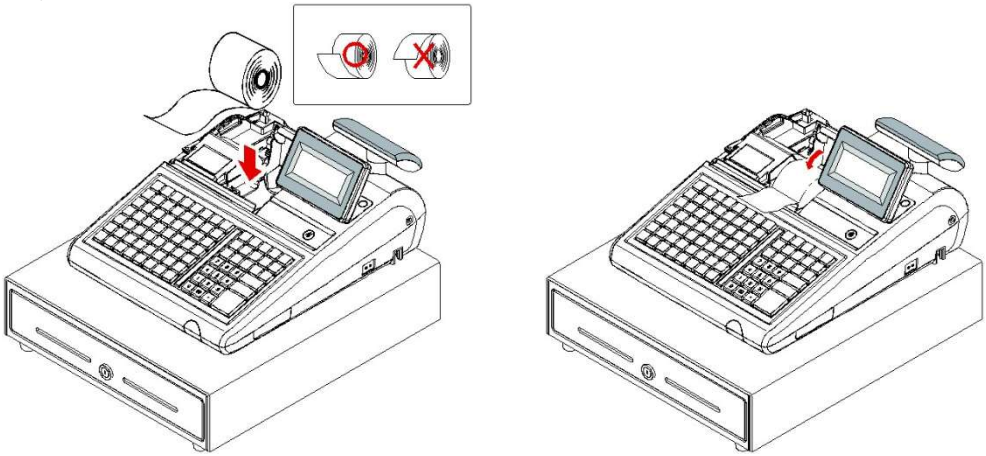
3. Ensure that the paper is being fed from the bottom of the roll and then close the paper cover slowly until it locks firmly.



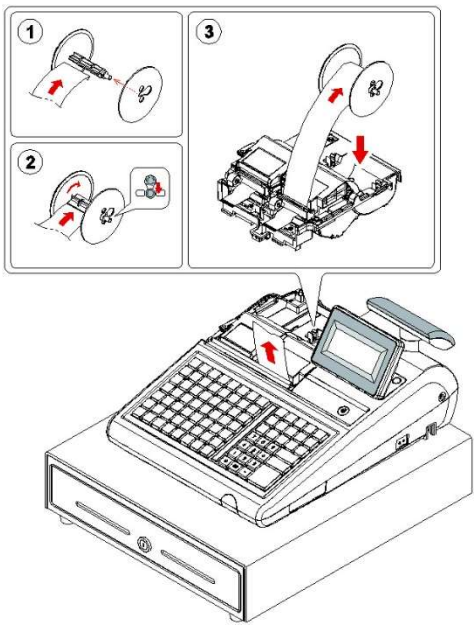
4. Pass the leading edge of the paper through the tear-bar port. Tear off the excess paper.



5. Push the blue cap lever and then lift up to open the journal printer 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 ensure that the paper is being fed from the bottom of the roll.



8. Replace the printer cover.

Memory All Clear

Before you use your ER-900E for the first time, you must perform a memory all clear *(Ram Clear Procedure)* to prepare the ECR for programming. This will ensure that any totals & counters and any previous programming are cleared from the RAM on the register and that the default program is installed.

After the memory all clear operation is performed, you will want to set the memory allocation settings as necessary for your application. Refer to the "Memory Allocation" chapter on page 122 in the S-Mode Programming for details.

- **CAUTION:** The procedures described in this area are security sensitive. Clearing the ER-900E 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 "S" 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. a Single Printer Station or a Two Printer Station configuration.
- 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 to select the "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 firmware versions, an SD card is required to be installed in the register when using EMV integrated credit. If you are not using integrated payment with EMV capability you can press Clear to Bypass the "SD Required" error message.

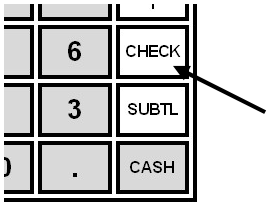
Warning! The Flash ROM code size was increased in version 2.000 and later, you cannot load v02.000 and later firmware into the early ER-900's that were manufactured before March 2013. Use the v1.126 for these ECR's.

ER-920E/ER-940E Memory All Clear

Be sure to insert an SD card into the ECR prior to performing this Ram Clear procedure if you are using EMV integrated payment or DC Direct.

If you are not using integrated payment with EMV capability or DC Direct you can press CLEAR to bypass the "SD Required" error message.

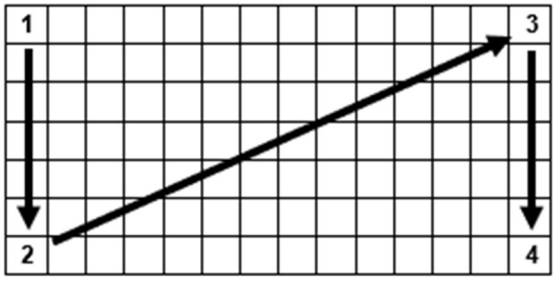
1. Turn the power switch located on the right side of the register to the **OFF** position.
2. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
3. Press and hold the key position where the **CHECK** key is located on the default keyboard layout:



ER-920E and ER-940E

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-920E
ER-940E

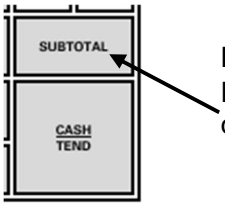
6. After a short delay, the memory is cleared.
   - The message "ERROR SD CARD REQUIRED" will display if there is no SD card in the SD port. An SD card is required for EMV integrated payment operations; insert an SD card in the SD port.
   - If you are not using EMV integrated payment, you can press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

ER-925E/ER-945E Memory All Clear

Be sure to insert an SD card into the ECR prior to performing this Ram Clear procedure if you are using EMV integrated payment or DC Direct.

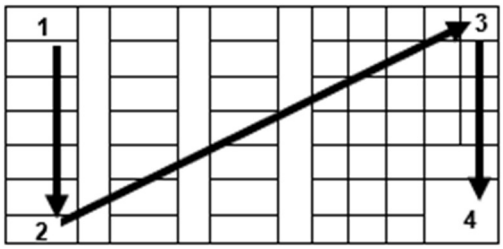
If you are not using integrated payment with EMV capability or DC Direct you can press CLEAR to bypass the "SD Required" error message.

1. Turn the power switch located on the right side of the register to the **OFF** position.
2. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
3. **Press & Hold** the key position where the **SUBTOTAL** key is located on the default keyboard layout:

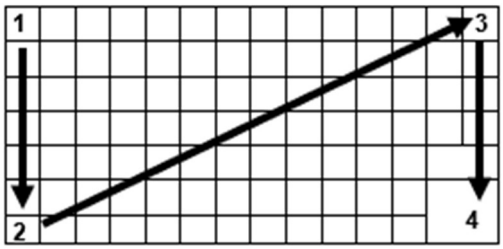


ER-925E and **ER-945E**
Press and Hold the **SUBTOTAL** key position during power-up in **S**-Mode.

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



ER-925E/ER-945E
Expanded Configuration
(63 NLU\PLU Keys)

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

To expand the keyboard to the full 63 PLU keyboard, you need to remove to double-wide keys in the upper left and lower left key positions. 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. See "Keyboard Expansion" on page 35 for details.

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. 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.

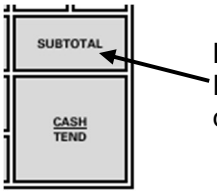
8. The display now indicates: “PRINTER 2STATION; Y=CASH N=CLEAR”.
    - If you have an ***ER-925E*** (one printer station), press **CLEAR**.
    - If you have an ***ER-945E*** (two printer stations), press **CASH**.
9. The display now reads: “AUTO CUT ?; Y=CASH N=CLEAR”. Press **CLEAR**.
   (There is no auto-cutter installed on any ER-900E series ECR.)
10. The display now reads: “SERVICE MODE; CLOSED”. The RAM Clear procedure is complete.

ER-915E Memory All Clear

Be sure to insert an SD card into the ECR prior to performing this Ram Clear procedure if you are using EMV integrated payment or DC Direct.

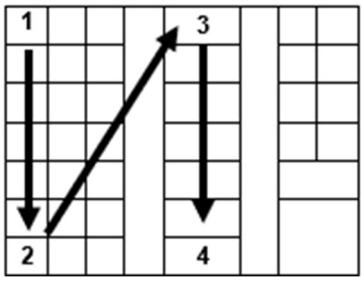
If you are not using integrated payment with EMV capability or DC Direct you can press CLEAR to bypass the “SD Required” error message.

1. Turn the power switch located on the right side of the register to the **OFF** position.
2. Turn the Mode Switch to the **“S”** position *(Service Mode)*.
3. Press and hold the key position where the **SUBTOTAL** key is located on the default keyboard layout:



ER-915E
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.



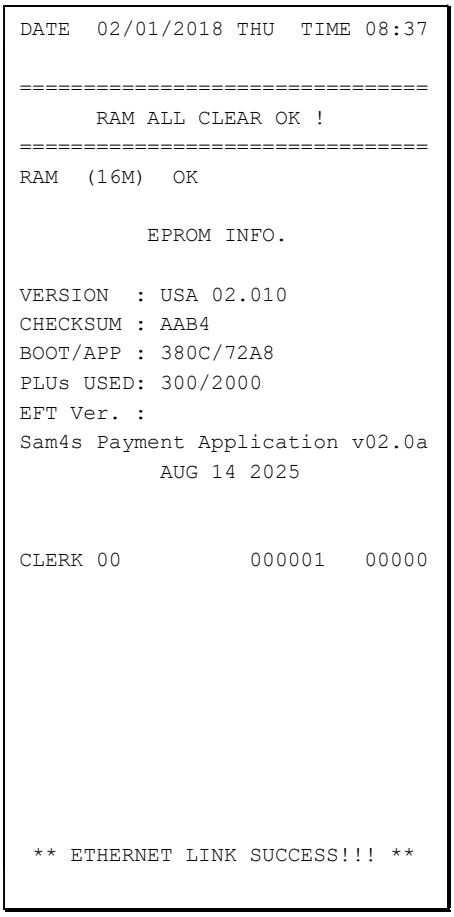
ER-915E

5. Press the **Upper Left** key (FEED) on the keyboard, then the **Lower Left** key (ZERO), then the **Upper Right PLU** key (PLU1 on the default keyboard with the double-wide PLU keys), and finally press the **Lower Right PLU** key (PLU7 on the default keyboard with the double-wide PLU keys).

Note: In the default configuration, there are 7 double-width PLU keys. Under each key, the left-most key is inactive and the right-most key is active.

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. 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.
8. The display now indicates: “PRINTER 2STATION; Y=CASH N=CLEAR”. Press **CASH**.
9. The display now indicates: “AUTO CUT ?; Y=CASH N=CLEAR”. Press **CLEAR**.
   (There is no auto-cutter installed on any ER-900E series ECR.)
10. The display now indicates: “SERVICE MODE; CLOSED”. The RAM Clear procedure is complete.

RAM All Clear Receipt Example



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

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

          EPROM INFO.

VERSION  : USA 02.010
CHECKSUM : AAB4
BOOT/APP : 380C/72A8
PLUs USED: 300/2000
EFT Ver. :
Sam4s Payment Application v02.0a
           AUG 14 2025


CLERK 00          000001   00000









 ** ETHERNET LINK SUCCESS!!! **
```

(Note: The EFT Version information prints on firmware versions v1.019 or later.)

- ** ETHERNET LINK FAIL!!! ** prints if the register ***is not*** connected to DC Direct.
- ** ETHERNET LINK SUCCESS!!! ** prints if the register ***is*** connected to DC Direct.

Keyboard Expansion

The keyboards on the ER-900E Series Raised-Key terminals can be expanded from their default configuration.

ER-925E/945E Keyboard Configuration Program

For the ER-925E/ER-945E registers, the keyboard is expanded during the Ram Clear operation. Refer to the "ER-925E/ER-945E Memory All Clear" procedure on page 32 for details.

The default keyboard configuration on the ER-925E/945E raised keyboard registers use 3-columns of doublewide keys for a total of 21 PLU's on the keyboard. The active key under the doublewide key is the key on the right-most key position. All other keyboard PLU positions are inactive.

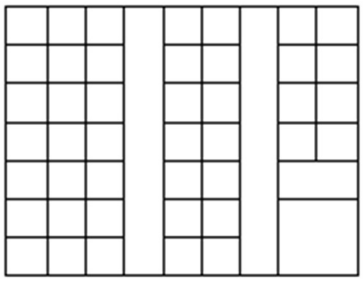
To activate all 63 PLU keys on the keyboard, you will need to remove the double-wide keytops from the upper-left and lower-left key positions and perform the Memory All Clear (Ram Clear) procedure using the single keys in the upper-left most key position and lower-left most key position as shown in the "915E Raised Keyboard – Expanded" chapter on page 22.

ER-915E Keyboard Configuration Program

For the ER-915E registers, the keyboard can be configured with 7 NLU keys on the keyboard for PLUs 1-7 (default) or with 14 NLU keys on the keyboard for PLUs 1-14. This procedure is performed from the S-Mode.

14 NLU Keyboard Setup

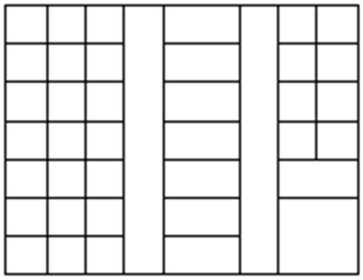
1. Turn the mode switch to the **"S"** position *(Service Mode)*.
2. Enter **4 0 0**, press **SBTL**.
3. Press **1** (Optional KBD - 14 Single PLUs).
4. Press **CASH**. *(Use Option KBD is displayed.)*



ER-915E
14 Single Key
NLU\PLU Configuration

7 NLU Keyboard Setup

1. Turn the mode switch to the **"S"** position *(Service Mode)*.
2. Enter **4 0 0**, press **SBTL**.
3. Press **0** (Default KBD - 7 Double wide PLUs).
4. Press **CASH**. *(Used Default KBD is displayed.)*



ER-915E
7 Double-Wide Key
NLU\PLU Configuration

Initial Clear

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.

CAUTION: Do not share this information with unauthorized users. The PGM Mode key should only be provided to those you may want to perform this function.

Here are some reasons you may want to perform the 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-900E.

Initial Clear Procedure:

1. Turn the power switch located on the right side of the register to the **OFF** position.
2. Turn the Mode Switch to the **PGM** position.
3. For All Models (ER-915E, ER-920E/ER-940E, ER-925E/ER-945E):
   Press and hold the key position where the **SBTL** 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.

Straight Percentage Tax Rate Programming

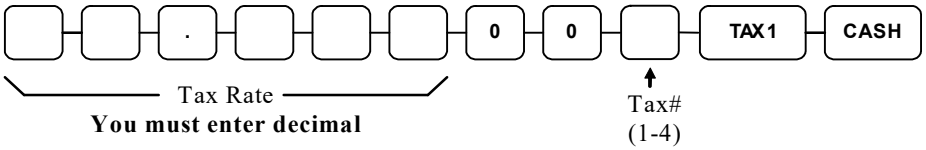
When tax requirements may be met using a straight percentage rate, use the following method to program a tax as a straight percentage.

Important! The Tax programming procedures were updated at software version 1.019. Beginning with 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 Mode Switch 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. Refer to "Straight Percentage Tax Programming" on page 149 for details.
4. Enter the number **(1-4)** for the tax you are programming.
5. Press the **TAX 1** key.
6. Press the **CASH** key to end programming.

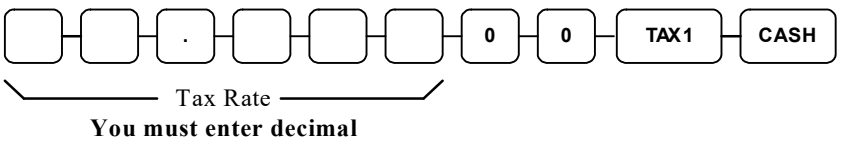
Tax Rate Programming Flowchart



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

1. Turn the Mode Switch 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. Refer to "Straight Percentage Tax Rate Programming" on page 149 for details.
4. Press the appropriate **TAX 1-4** key for the tax you are programming. (The TAX 1-4 key must be assigned to a keyboard location.)
5. Press the **CASH** key to end programming.

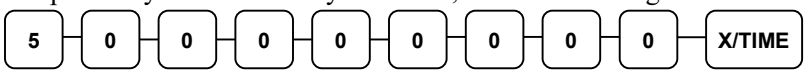
Tax Rate Programming Flowchart



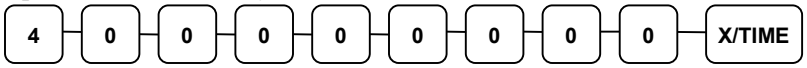
Programming Tax & Preset Status for Keyboard PLUs

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 156 for detailed instructions.

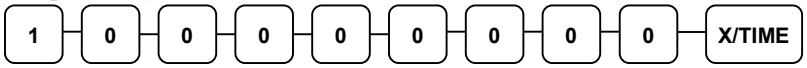
1. Turn the Mode Switch to the **P** position.
2. To begin the program, enter **1 0 0**, press the **SBTL** key.
3. Press a **PLU** key on the keyboard.
4. For an open-entry PLU taxable by tax rate 1, enter the nine digits as shown and press the **X/TIME** key:

   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 Price for Preset Keyboard PLUs

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 Mode Switch to the **PGM** position.
2. To begin the program, enter **2 0 0**, press the **SBTL** 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.

   Price/HALO

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

Programming Descriptors for Keyboard PLUs

The default alpha descriptor program method uses the Alpha Code Entry Method. You will need to set System Option #31: Program descriptor with overlay? to YES to use the Overlay Method or to NO to use the Code Entry Method.

ER-920E & ER-940E models feature a 150-key flat keyboard.

ER-925E, ER-945E and ER-915E models feature a 98-key raised-key keyboard. Use the code entry method for the default keyboard. If you have expanded the keyboard on the ER-925E/ER-945E, the descriptor entry method can be code entry or by keyboard overlay.

ER-915E models feature a 63-key keyboard and must always use the descriptor code entry method. Consult with your dealer to determine the correct method of descriptor entry for your model.

Spanish Characters: Á, Ã, Ñ are available at firmware version v1.121 and later.

Alpha Descriptor Keyboard Overlay Method 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:

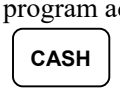
1	11	21	31	41	51	61	71	81	91	FEED	JOURNAL FEED		
Á	Ñ	Ã	32	42	52	62	72	82	92				
'	"	<	>	-	+	=	:	?					
!	@	#	$	%	^	&	*	(	)				
q	w	e	r	t	y	u	i	o	p				
a	s	d	f	g	h	j	k	l	;		CLEAR	PLU	X/TIME
z	x	c	v	b	n	m	,	.	/		7	8	9
CAP	DOUBLE	SPACE	SPACE	SPACE	SPACE	SPACE	CAP	DOUBLE	BACK		4	5	6
9	19	29	39	49	59	69	79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

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

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **3 0 0**, press the **SBTL** key.

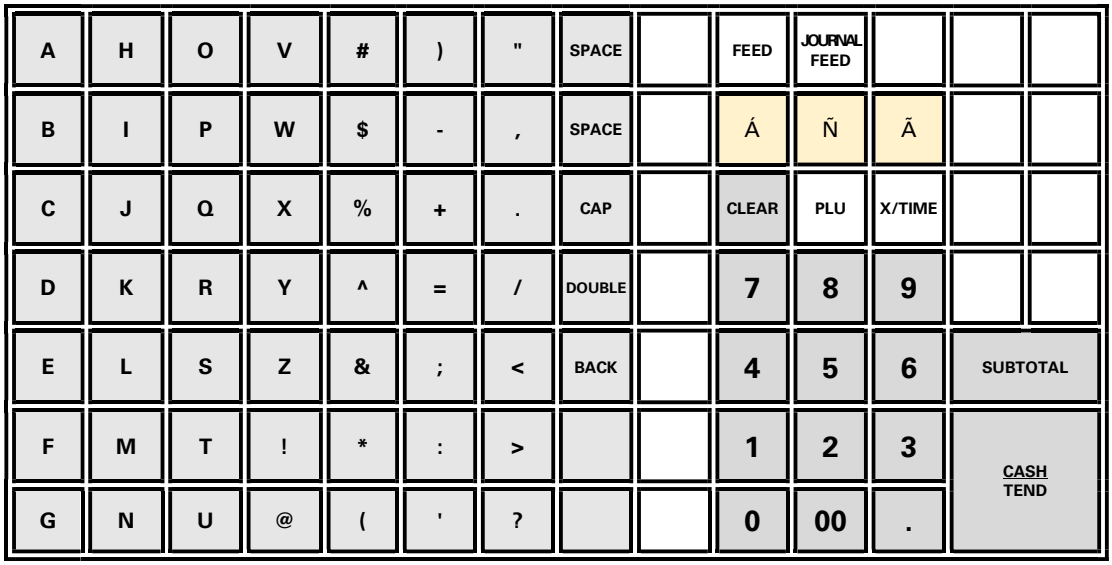
   

3. Press a **PLU** key on the keyboard you wish to program.
4. Type up to 18 characters on the alpha keyboard overlay and press the **X/TIME** key.
5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

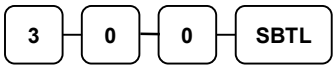
   

Alpha Descriptor Keyboard Overlay Method for Raised Key Models

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



1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **3 0 0**, press the **SBTL** key.

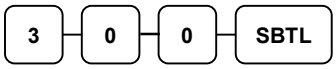
3. Press a **PLU** key on the keyboard you wish to program.
4. Type up to 18 characters on the alpha keyboard overlay and press the **X/TIME** key.
5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

Alpha Descriptor Code Entry Method

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

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **3 0 0**, press the **SBTL** key.

3. Press a **PLU** key on the keyboard you wish to program.
4. Type up to 18 3-digit character codes from the Descriptor Code Chart on page 41 and press **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				
CHAR	Á	á	Ñ	ñ	Ã	â				
CODE	125	126	127	128	129	130				

Spanish Characters: Á, **à**, **Ñ**, **ñ**, **Ã**, **ã** are available at firmware version v1.121 and later.

Operations

Overview

The operations section of this manual provides basic information about the functions performed by the register. The Description for each of the function keys is explained, giving a general explanation of their operation.

Operation Examples are demonstrated for each function showing the proper keystrokes and the resulting print on the receipt. Since all applications differ in actual programming, some operations may require management control, while other optional function keys may not exist on your keyboard.

If you have questions concerning the setup of your keyboard, please contact your authorized SAM4s dealer.

Function Key Descriptions

Keys are listed in alphabetical order. Many of the keys described below are not included on the default keyboard. Refer to "Function Key Assignment Programming" on page 125 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. When X/Time is pressed in REG mode when the ECR is idle, the Date & Time are displayed on the operator display.
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 opens 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.

Keyboard Legend	Description
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 opens 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.
CHECK ENDORSEMENT	Use to print a check endorsement message on an optional slip printer after a check has been tendered. Refer to "Programming the Receipt Logo/Check Endorsement Message" on page 234 to program a check 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 opens 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 new or access existing guest check balances (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 that are assigned automatically will begin with #1. Existing checks are accessed by entering the check track number and pressing the CHECK # function 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 that is 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.

Keyboard Legend	Description
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.
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. PLUs 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	The Pay Tender functions like the Payment key. However, if the payment amount exceeds the check balance, the overpayment will be issued as change and the account balance will be zero. 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.
RCPT 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). PLUs 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
SBTL	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 Mode Switch. 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 Mode Switch 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. Refer to "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 enable/disable the clerk interrupt operations.)

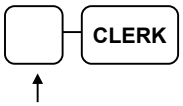
Depending on how your register has been programmed, sign-on will take place only at the beginning of a shift (stay-down) or may have to be repeated for each transaction (pop-up). Normally, if your register has been programmed for stay-down clerks, the clerk currently signed on must be signed off before 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 Clerk 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
```

Clerk Sign-Off

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 Clerk 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)

Clerk Sign-Off

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

Receipt On and Off

Merchants may choose not to issue receipts automatically but rather just print a receipt when the customer requests a receipt. The merchant can press the RECEIPT ON/OFF function key if it is located on the keyboard to toggle the receipt printing On or Off.

The RECEIPT ON/OFF key ***is not*** located on the default keyboard after the memory all clear procedure is performed.

If the Receipt On/Off key ***is not*** located on the keyboard, merchants can still turn the receipt On or Off from the **"X"** Mode Switch position.

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*.

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

1. Turn the Mode Switch to the **"X"** position.
2. To turn the receipt ***OFF***: enter **9 9**, press the **SBTL** key. Enter **1**, press **CASH**.

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

PLU Registrations

PLU's are the products or services that are available for sale. All sale registrations on *ER-900E series ECR's* 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.
    - Refer to "Program 1000 – NLU Code Programming" on page 241 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 PLUs depends upon the specific model register and the program installed. Refer to the sections "Keyboards" on page 21 and "Keyboard Expansion" on page 35 for details.
- When there are more PLU's, items or categories needed than the number of keys that are available on the keyboard, registrations can be registered into PLUs by entering the PLU code number and pressing the PLU function key on the keyboard.
    - If an optional scanner is used, items can be programmed into the PLU file or registered into a sale by scanning the barcode on the item.
    - All scanned items must be added to the PLU file before they can be registered into a sale. If an item is scanned and the item is not currently in the PLU file, the Not Found PLU feature can be used to add the item into the PLU and register the item in the sale. Refer to page 95 for details.
- PLU's are assigned to groups to categorize sales of like items. Each PLU can be designated to report to 3 different as necessary. For Example, the PLU for Hormel 16oz. Shave Ham can be designated to report to the Groups: Deli \ Meat \ Shaved Ham.

This system simplifies sales reporting by listing all items sold regardless of how they are registered on the PLU report. Reporting for groups of similar items or categories of items is available from the Group report.

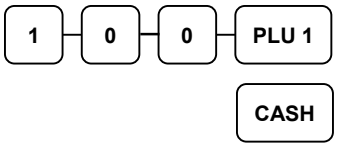
System Reports are shown in the Report Table on page 105. Sample Reports are shown on page 105.

Keyboard PLU Entries

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

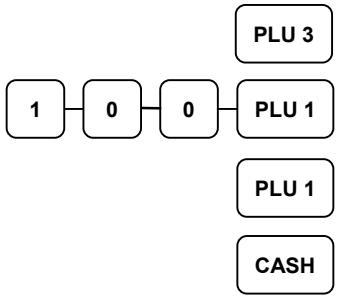
In the following examples:

- PLU1 is programmed for open entries and is taxable by Tax 1.
  (Up to a 7-digit entry is allowed on an Open entry PLU)
- PLU2 is programmed for open entries and is taxable by Tax 2.
  (Up to a 7-digit entry is allowed on an Open entry PLU)
- 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%.



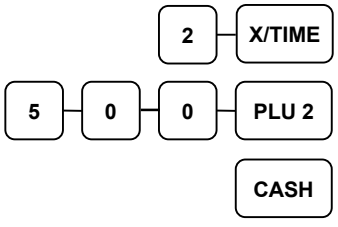

```
DATE 06/14/2011 SUN   TIME 08:37

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

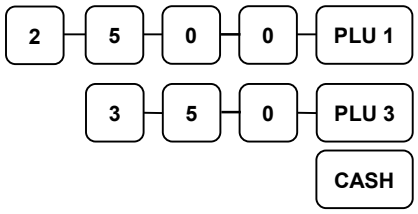



```
DATE 06/14/2011 SUN   TIME 03:15

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: The maximum allowable X/Time key multiplication entry limit is 999.999.

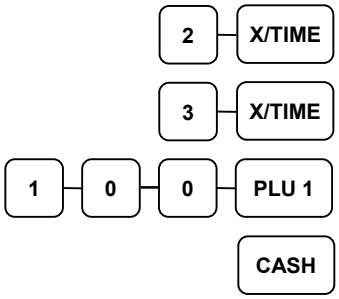
Note: PLU program setting must be set to allow this override. Turn mode switch to the **"X"** position if set for manager control.




```
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
```

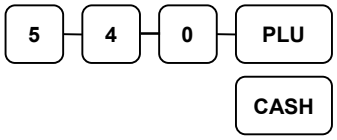
Split Pricing PLU Entry

Numeric PLU Entries

PLU's can be registered using the PLU code #; Enter the code # for the PLU & press the PLU function key.

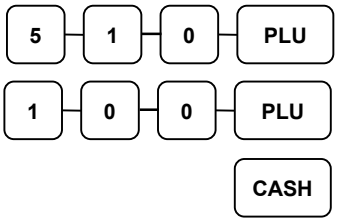
In the following examples:

- PLU510 is programmed open and is taxable by Tax 1.
  (Up to a 7-digit entry is allowed on an Open entry PLU)
- PLU520 is programmed open and is taxable by Tax 2.
  (Up to a 7-digit entry is allowed on an Open entry PLU)
- 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.



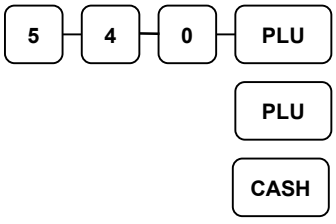

```
DATE 06/14/2011 SUN   TIME 03:15

#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
```

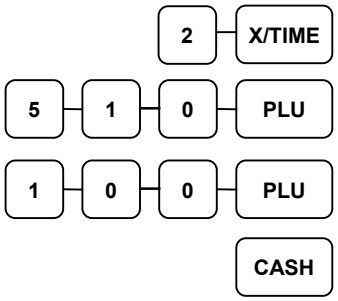
Single Open PLU Entry




```
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

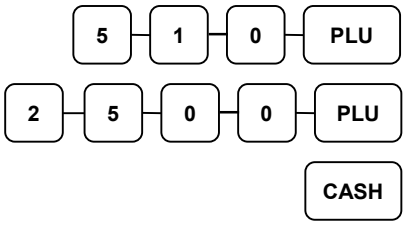



```
DATE 06/14/2011 SUN   TIME 03:15

2X              @1.00
PLU510 T1                  $2.00
TAX1                       $0.10
TOTAL                      $2.10
CASH                       $2.10
CLERK 1          000001    00001
```

Multiple Quantity of an Open PLU Entry

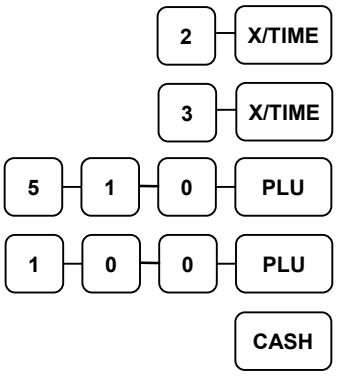
Note: The maximum allowable X/Time key multiplication entry limit is 999.999.

Note: PLU program setting must be made to allow this override.
Turn Mode Switch 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, 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. Refer to “Modifier 1-5" in the "P-Mode Programming" chapter to determine how the modifier key will affect the PLU entry.

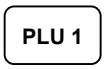
You can choose to have modifier key operation stay-down or pop-up. Refer to "P-Mode Programming", "System Option Programming" option # 29 to select the operation status for modifiers as Stay-Down or Pop-Up operation:

- ***Stay Down* –** All registrations in the current sale and all subsequent sales will be modified by the same modifier until another modifier is selected. *(To Accommodate Breakfast, Lunch, Dinner menus.)*
- ***Pop-Up after each item* –** Modifier applies only to the current item registered. *(For registering different sizes: large, medium or small soft drinks.)*
- ***Pop-Up after each transaction* –** Modifier applies to all items in current sale. For example: For entering topping selections for various pizza sizes.

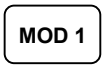
Pop-Up Modifier Key Affecting PLU Code

In this example modifiers are programmed as: ***Pop-Up after each item***.

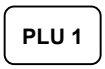
1. Press a PLU key on the keyboard.
   For example, press **PLU1**.

   PLU1 has a preset price of $1.00 and is registered into the sale.
2. Press the **MOD 1** key.

3. Press the **same PLU1** key. In this example Modifier 1 will add the digit 1 to the fourth digit of the PLU # position, resulting in the registration of PLU #1001.
   PLU 1001 has a preset price of $2.00 and is registered into the sale.
4. Press the **PLU1** key again, the PLU is not modified and PLU1 is registered at $1.00.

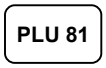
   


```
DATE 06/14/2011 SUN   TIME 03:15

PLU1                          $1.00
PLU1001                       $2.00
PLU1                          $1.00
TOTAL                         $4.00
CASH                          $4.00
CLERK 1          000001       00001
```

Age Verification

Registration of some products may require you to check the customers birth date before being sold such as tobacco products or alcohol products. When an age restricted item is registered the display will prompt the cashier for the customer's Date Of Birth.

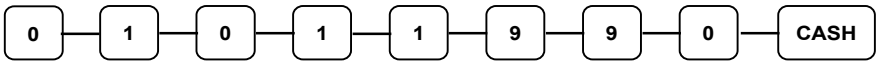
1. Register a PLU that requires age verification by scanning or pressing the PLU on the keyboard. For example, press **PLU 81**

2. The **DATE OF BIRTH** entry is displayed:

   ```
   DATE OF BIRTH
   MM/DD/YYYY
   ```

3. Type in the date of birth from the customers ID then press CASH. For example, 01011990

4. If the DOB entered satisfies the required age for the product, the sale of the product is allowed. Any additional PLUs entered that have the same age restriction will also be allowed without having to reenter the DOB.
5. If the DOB entered does not satisfy the age requirement for the selected PLU a warning will sound and the **AGE RESTRICTION** message displays:

   ```
   ** WARNING **
   AGE RESTRICTION
   ```

Price Level Key

Two price levels are available for registering the same item at two different prices, such as for happy hour pricing. The default program selects one price level. If you choose to use the second price level feature, you must allocate memory for each level. Refer to "Memory Allocation" in the "S-Mode Programming" chapter.

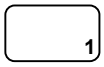
You must also place price level keys on the keyboard. Refer to "Function Key Assignment" in the "P-Mode Programming" chapter. Price Level keys shift the price of the PLU that is being registered.

You can choose to have price level key operation as stay-down or pop-up. Refer to "P-Mode Programming", "System Option Programming" Option # 28 to set the operation status for how the price level keys operate:

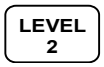
- ***Stay Down*** so that registrations will stay in the selected level until another level is selected,
- ***Pop-Up after each item*** to register, for example large, medium or small soft drink,
- ***Pop-Up after each transaction*** to register the same level until the transaction is finalized.

Pop-Up After Item Price Level Keys

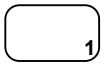
1. Press a preset PLU key.
   For example, press **PLU 1** programmed with a price of $1.00 for price level 1.

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.

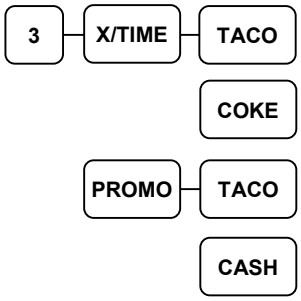
   

4. Press another PLU key. In this example press **PLU 2** programmed to register PLU #2 with price level 1. Note that the level 1 price is registered.

```
DATE  06/05/2011 SUN  TIME 08:33

PLU1 F                      $1.00
PLU1 F                      $2.00
PLU2 F                      $1.50
TOTAL                       $4.50
CASH                        $4.50
CLERK 1          000328     00001
```

Promo Operation

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.



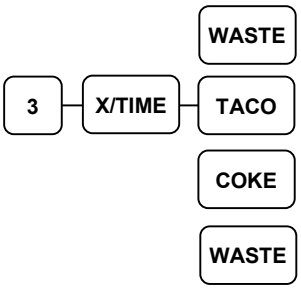

```
DATE 06/14/2011 SUN   TIME 13:15

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 Operation

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

Waste operations begin and end 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
```

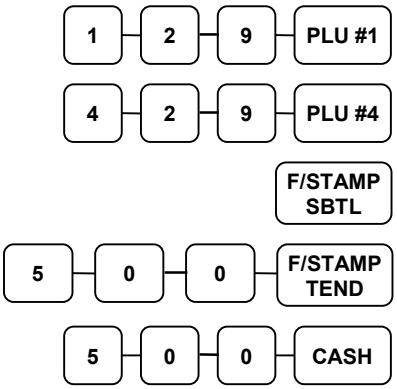
Waste Entry

Food Stamp Operations

The *SAM4s ER-900E* can be set up to sort food stamp eligible merchandise and accept food stamp payments. Refer to "Function Key Assignment Programming" on page 125 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 as necessary. (Refer to "Program 100 – PLU Status Programming" on page 156.)

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

- The F/S SHIFT key is used 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 may not 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.
- To pay with food stamps (EBT), press the F/S SUB key to display a total of food stamp eligible merchandise.
- Enter the amount from the F/S SBTL and press 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                          $4.29
TOTAL                         $5.58
F/S TOTAL                     $1.29
F/D TEND                       5.00
F/S CRT AMT                   $0.71
TOTAL                         $0.58
CASH                          $5.00
CHANGE                        $4.42
FD/S CHANGE                   $3.00
CLERK 1          000001       00001
```

Food Stamp Payment Transaction

Discounts & Coupons

Discounts & Coupons may be applied to transactions using the %1 ~ %5 function keys. There is one percentage key on the default *ER-925E/945E* raised keyboard; there are four percentage keys on the default *ER-920E/940E* flat keyboard. Additional % keys may be assigned through "Function Key Assignment Programming" (see page 125). Up to five percentage keys may be placed on the keyboard.

Each % key is individually programmable to add or subtract percentages from an individual item or from sale total, or to subtract amounts (coupons) from an item or sale. The % keys may be set as taxable or non-taxable, so that taxes are calculated on the net or gross amount of the item or sale. The discount amount or percentage may be set to a preset value or as an open as an open amount or percentage where the cashier will need to enter the value.

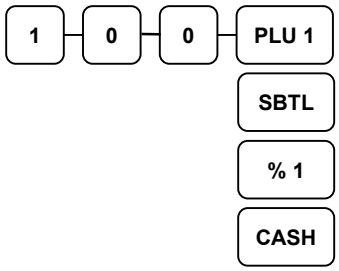
The operation examples in this section show the percentage key operations in a variety of configurations. Refer to the "%1 - %5 Function Options" on page 192 to assign specific function settings for each percentage key.

Percent Discounts

A percentage discount can be programmed to apply a preset or open percentage (%) discount or as a preset or open entry percentage (%) surcharge (such as a Tip) to an individual item in a sale or to the entire sale.

Percent Sale Discount

To apply a Sale Discount you must press the **SUBTOTAL** key before registering the discount. In this example the %1 key is programmed as a 10% sale discount.

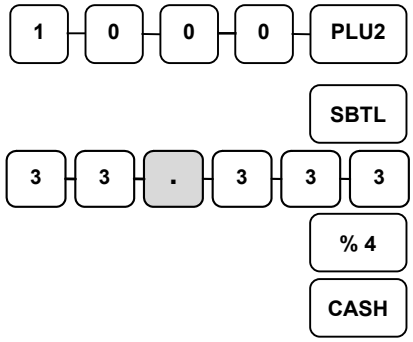



```
THANK-YOU
CALL AGAIN

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

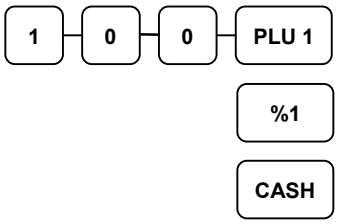
Open Entry Percent Sale Discount

You can also operate the percentage functions by entering the percentage of the discount or surcharge, you can enter a fractional percentage up to 3 digits beyond the decimal (i.e. 33.333%).




```
            THANK-YOU
            CALL AGAIN

DATE 06/05/2011 SUN   TIME 08:33

PLU2                        $10.00
% 4                      -33.333%
AMOUNT                       -3.33
TOTAL                        $6.67
CASH                         $6.67
CLERK 1        No.000011     00001
```

Open Entry Percent Discount on a Sale




```
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

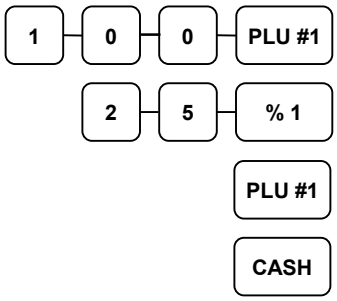
Coupons

When a % key is programmed as "Amount", "Sale", "Open or Preset" and "Negative", the **%** key will apply as a coupon against the sale. *(Vendor Coupon)*

When a % key is programmed as "Amount", "Item", "Preset or Open" and "Negative", the **%** key will perform a coupon against an item in the sale. *(Store Coupon)*

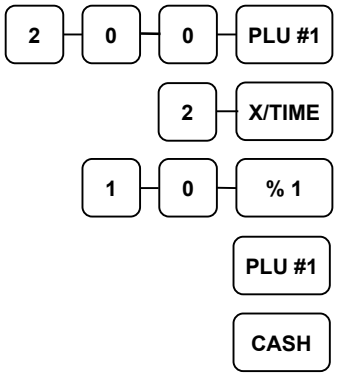
NOTE: You cannot program a % key as a Positive Amount, for this you would need to use a PLU.

Store Coupons



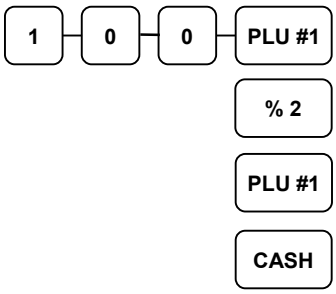

```
DATE 06/14/2011 SUN   TIME 03:15

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
```

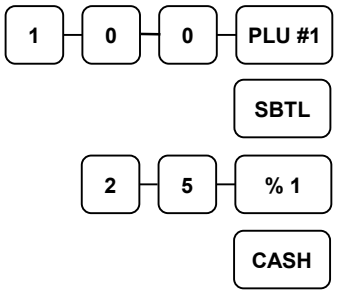
Multiple Store Coupon Entry (Open Amount Discount on an Item)




```
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
```

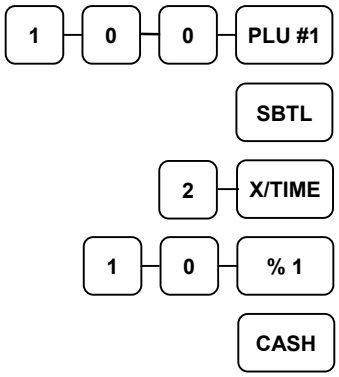
Preset Store Coupon (Preset Amount Discount on an Item)

Vendor Coupons



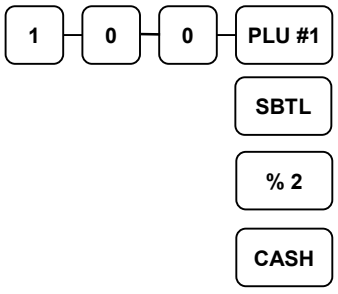

```
DATE 06/14/2011 SUN   TIME 03:15

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)

Mix & Match

Retailers often offer discounts when multiples of different items are purchased. The Mix & Match program sets the number of items that must be purchased to receive the discount and the amount of the discount. For example, the offer: "Save $5 on any three bottles of wine" can be handled by a mix and match discount. The SPS-300 series can accommodate up to 99 different mix and match discounts *(as set in memory allocation)*.

The Mix & Match Table options are set through separate programs:

- In the **P** Mode Switch position:
  - **"Mix & Match Program" –** To program each Mix & Match discount.
    Refer to Page 227 for programming details.
  - **"Mix & Match Scan" –** For printing out the current Mix & Match programming.
    Refer to Page 246 for "Program Scans" operation.
  - **"PLU Mix & Match Programming" –** (450 SBTL Program) You must link eligible items to the appropriate M & M discount.
    See page 166 for PLU programming details.
  - **"System Option Programming" –** Optionally, you can choose to make M & M discount taxable. *(Tax is applied to the "Net amount after the M & M discount)*.
    See page 167 for "System Option Programming" MIX & MATCH IS TAXABLE is option #33.

Mix & Match Operation

When the Mix & Match discount has been programmed and eligible items are assigned to the M & M discount, when the eligible items are registered in a sale, the Mix & Match discount will automatically be applied.


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

W. WINE   T12              $15.00
ROSE WINE T12              $15.00
RED WINE  T12              $15.00
M & M 1                     -5.00
TAX1                        $3.94
TAX2                        $1.80
TOTAL                      $45.74
CHARGE                     $45.74
CLERK 1          000111     00121
```

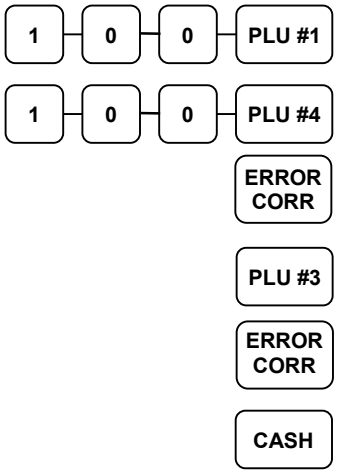
Register 3 Bottles of Wine

Mix & Match is Applied Automatically

Void and Correction Operations

Error Correct

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

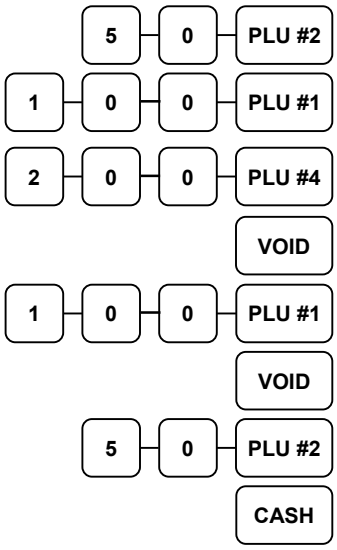



```
DATE 06/14/2011 SUN   TIME 03:15

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.

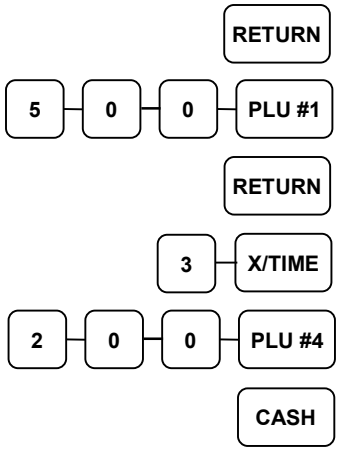



```
DATE 06/14/2011 SUN   TIME 03:15

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

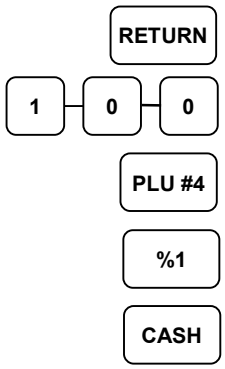
Merchandise returns may be registered as part of a separate transaction, or as part of a transaction where other merchandise is sold. Press the RETURN key before entering the related PLU. Tax is credited if the item being returned is taxable.




```
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

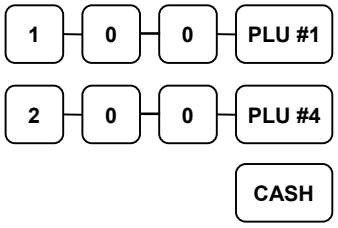



```
DATE 06/14/2011 SUN   TIME 03:15

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

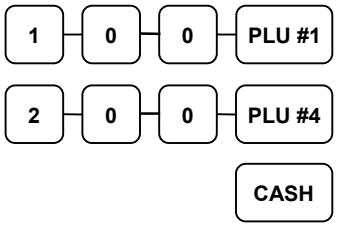
VOID Mode Switch Position (Transaction Void)

Most operations that can be performed with the Mode Switch in the REG position, can also be done with the Mode Switch 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



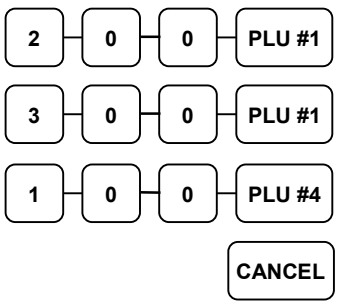

```
DATE 06/14/2011 SUN   TIME 03:15

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

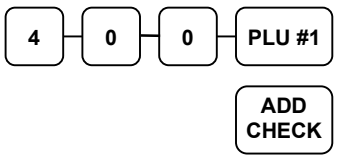
Subtotal

Press the SBTL 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)

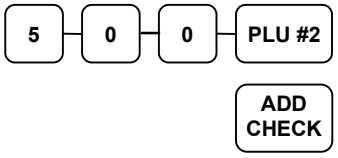
In a cafeteria, use the ADD CHECK key to add multiple trays that are paid by a single individual. *(i.e. Dad pays for all the trays for the family.)*

Press the ADD CHECK key after each order, and SBTL 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

PLU2 T1                     $5.00
TAX1                        $0.25
TOTAL                       $5.25
ADDCHK                      $5.25
CLERK 1          000002     00001
```

Second Check Added

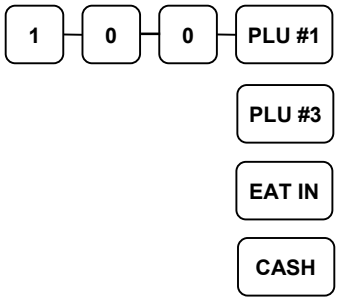

```
DATE 06/14/2011 SUN   TIME 03:15

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

Payment for Both Checks

Eat-In/Take-Out/Drive-thru Operations

In a restaurant or fast food application the EAT-IN, TAKE-OUT and DRIVE-THRU keys can be used 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. Refer to "DRIVER THRU / EAT IN / TAKE OUT – Function Options" on page 204 to set up tax status for these keys.

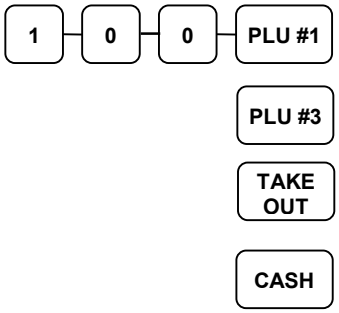
After registering all items, press EAT-IN, TAKE-OUT or DRIVE-THRU (as you would use the Subtotal key), and then finalize the sale as you normally would.




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

PLU1 T1                      $1.00
PLU3 T12                     $3.00
        ═══ EAT-IN ═══
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
       ═══ TAKE-OUT ═══
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
      ═══ DRIVE-THRU ═══
TOTAL                        $3.00
CASH                         $3.00
CLERK 1          000001   00001
```

DRIVE-THRU Transaction

(Tax is Removed from Taxable Items)

Shift or Exempt Tax Operations

PLU's can be programmed to automatically add the appropriate tax or taxes. Occasionally, you may need to sell normally taxable items without tax, or a normally non-taxable item with tax. You can perform this tax shifting with any of the four tax shift keys. These operations will work on items with Add-On Tax or a Tax-Table, not a VAT Tax.

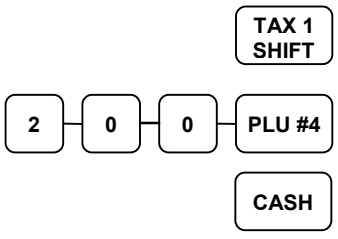
The **Tax Shift** keys will "shift" the tax status for the item\items registered. If a PLU is normally taxable, pressing the Tax shift key before registering the PLU will register the item as Not Taxable.

Conversely, if the PLU is normally Not Taxable pressing the Tax shift key before registering the PLU will register the item as Taxable and the appropriate tax will apply to this PLU.

You can program the **TAX EXMT** function to remove all or selected taxes. Refer to the "Tax Exempt" function key programming on page 223 for details.

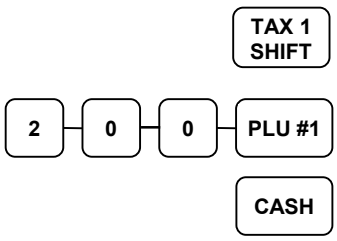
When tax shift operations are performed, the appropriate tax will display before the entry.

- 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 finalizing the transaction.



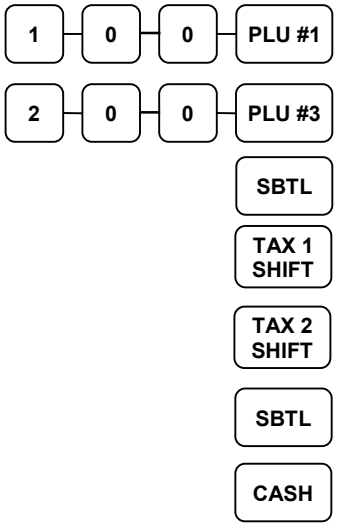

```
DATE 06/14/2011 SUN   TIME 03:15

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



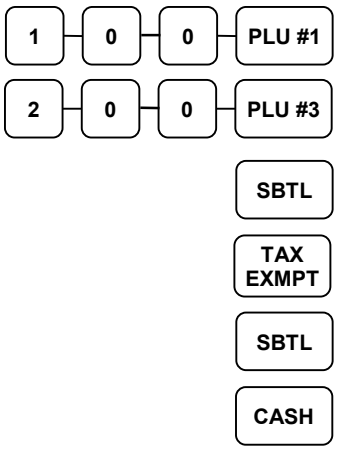

```
DATE 06/14/2011 SUN   TIME 03:15

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

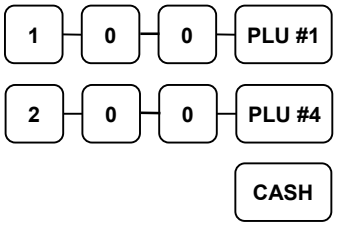



```
DATE 06/14/2011 SUN   TIME 03:15

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

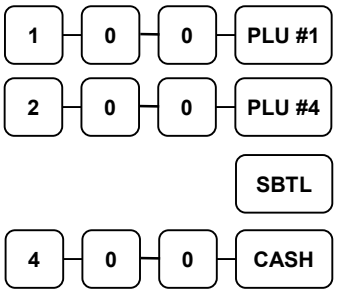
Tendering Operations

Cash



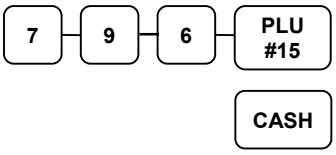

```
DATE 06/14/2011 SUN   TIME 03:15

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 Due

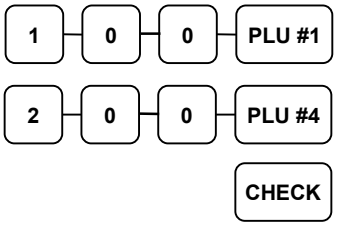



```
DATE 01/23/2026 FRI   TIME 12:58

PLU15 T1                   $7.96
TAX1                       $0.62
TOTAL                      $8.60
ROUND                      $0.02
CASH                       $8.60
CLERK 1          000001    00001
```

Cash Tender with Rounding

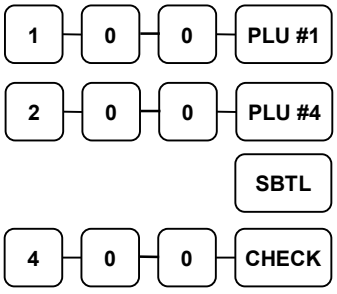
*(The **ROUND** amount printing on receipts is available at v02.008 and later.)*

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)

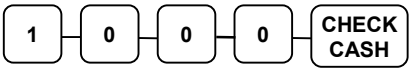



```
DATE 06/14/2011 SUN   TIME 03:15

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 Due

Check Cashing

Check cashing is the process of exchanging cash for a check. If you are cashing checks, you must place the **CHECK CASHING** key on the keyboard. Refer to "Function Key Assignment" in the "Program Mode Programming" chapter.




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

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

Check Cashing

Check Endorsement

If you are accepting CHECKS as payment for sales transactions, or providing CHECK CASHING services, you can program the CHECK key and the CHECK CASHING key for Compulsory Check Endorsement.

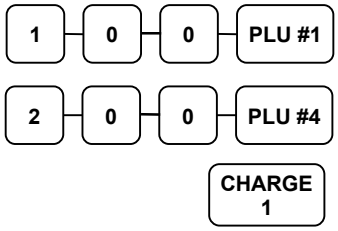
To use this feature an optional external slip printer is required. A separate Check Endorsement Message can be programmed for printing on checks. Refer to "Endorsement Message" programming on page 234.

The procedures are the same as explained for the Check Tender and Check Cashing operations.

1. When the transaction is finalized you will be prompted to perform the Check Endorsement.
2. Insert the check into the Slip Printer and press the **CHECK ENDORSEMENT** key.

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

Integrated Credit Card Payment Operations

For integrated credit card payment operation information using Datacap DC Direct integrated credit equipment, refer to the separate ***"ER-900E Datacap DC Direct"*** supplement available on the CRS website.

For integrated credit card payment operation information using Datacap EMV integrated credit equipment, see the ***"EMV Integrated Payment"*** chapter on page 247 in the Appendix.

A separate integrated payment supplement ***"ER-900E Series Non-EMV Datacap"*** is available on the CRS web site.

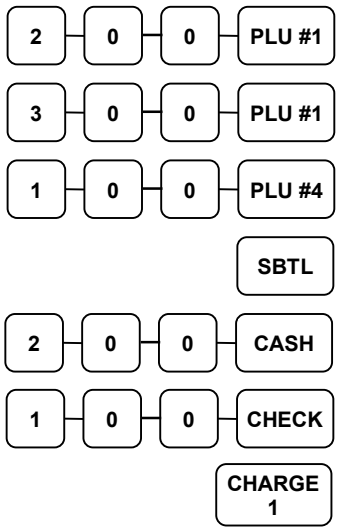
Receipt on Request

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 167 and option #24 in "Print Option Programming" on page 177.

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

Split Tender

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

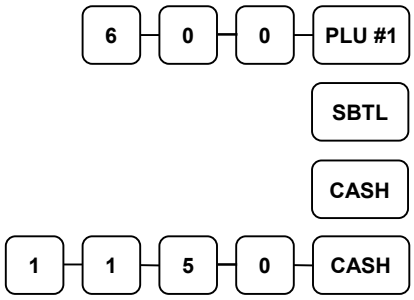



```
DATE 06/14/2011 SUN   TIME 03:15

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 167 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.)



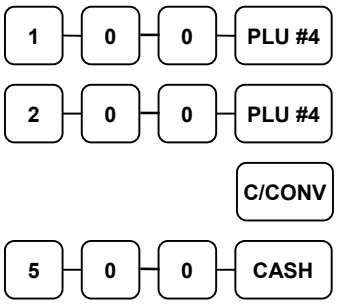

```
DATE 06/14/2011 SUN   TIME 03:15

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

Post Tender

Currency Conversion

If you normally accept currency from a neighboring nation, you can program the *SAM4s ER-900E* to convert the subtotal of a sale to the equivalent cost in the foreign currency. Four foreign currency conversion keys are available. Refer to "Function Key Assignment Programming" on page 125 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. Refer to "Instructions for Currency Conversion Rate – Program 90" on page 190 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

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**. Refer to "Clerk Programming" "Secret Code Programming" on page 229.
2. Set **System Option #2** to a value of **1**. Refer to "Programming a System Option" on page 167.
3. Set **System Option #26** to a value of **1**. Refer to "Programming a System Option" on page 167.

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 177.)
- 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**. Refer to “Programming a System Option” on page 167.

To Exit Training Mode

- Set system option #23 to a value of **0**. Refer to “Programming a System Option” on page 167.
- Sign Off Clerk: REG Mode → 0 [CLERK]

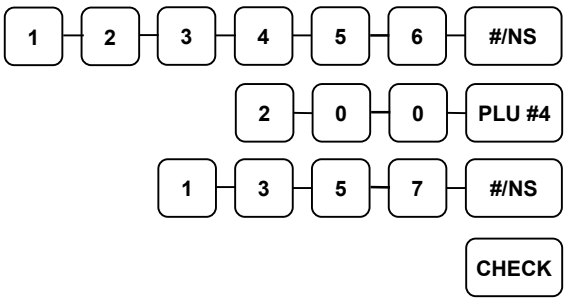
#/No Sale Operations

The **#/NO SALE** key is used to open the cash drawer when not currently in a sale, or to include a Non-Add Number to be printed on the receipt for the current sale.

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, except for the Non-Add # key total itself. You can enter a number up of up to 9 digits. For example:

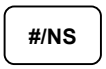
- Enter a number prior to a PLU entry to print a record of the item's SKU number.
- Enter a number prior to a Check tender to print a record of the check number.
- Enter a number prior to a Charge to print a record of the charge account number.




```
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
```

Open Drawer – No Sale

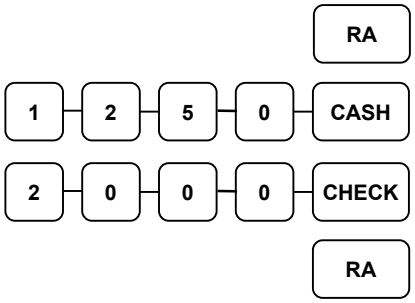
Outside of a transaction you can press the **#/NS** key to open the cash drawer. The number of no sales are counted and reported on the financial report. The no sale function can also be placed under management control, requiring the control key to be in the **"P"** position.




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

NO\SALE ------------------------
CLERK 1          000001    00001
```

Received on Account

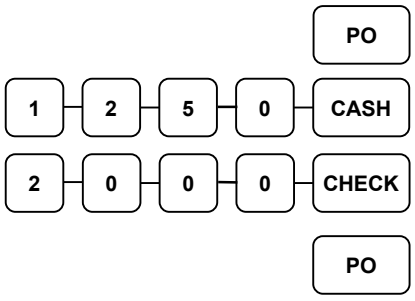
Use the RECD ACCT key to record payments or loans to the cash drawer. You can enter more than one type of payment to the drawer. The Received on Account function can only be used outside of a transaction.




```
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

The *SAM4s ER-900E* 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 using the **PBAL** key *(key code #372)*.
- If a hard check system is selected, only the check # and previous balance is maintained in memory.
- If a soft check system is selected all the check detail is kept in memory until the check is paid. (The maximum number of lines for a soft check is set in memory allocation programming.) When a soft check, guest check system is used, the receipt can be used to print the final check that is presented to the customer for payment.
- TIPs can be added to an existing guest check using the TIP function key *(key code #397)*.

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**"

"**1 TAP BEER**"

"**1 TAP BEER**". (Refer to "Print Option Programming" on page 177.)

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.

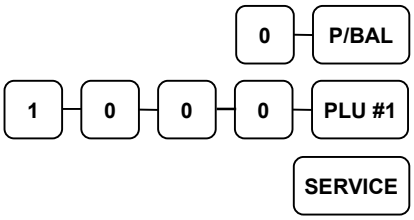
Table Service Function Keys

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. Refer to "Function Key Assignment Programming" on page 125 if it is necessary to locate these keys on your keyboard.

Function Key	Operation
CHECK # *(key code #334)*	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 *(key code #349)*	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 *(key code #379)*	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 *(key code #387)*	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 # *(key code #388)*	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 *(key code #380)*	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 *(key code #397)*	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 an amount. If programmed as a percentage, tax programming defines whether the tax is calculated & added on the tip amount. *(Taxable = **Yes**)* amount.

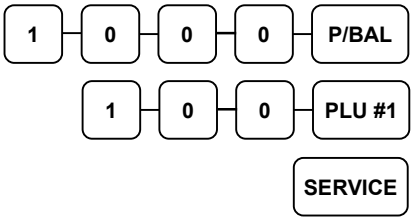
Posting Guest Checks Manually with the Previous Balance Key

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



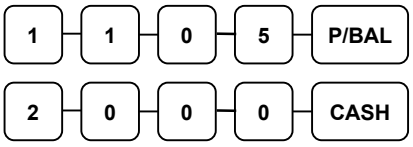

```
DATE 06/14/2011 SUN   TIME 03:15

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



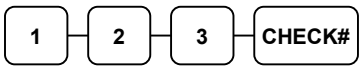

```
DATE 06/14/2011 SUN   TIME 03:15

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:

   Alternately, 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:

   [1] [2] [3] [CHECK#]

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

   [3] [TABLE]

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

   [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:

   [1] [2] [3] [CHECK#]

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

   [3] [TABLE]

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

   [PRINT CHECK]

Sample of soft check printed on the internal receipt printer:

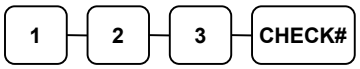
```
DATE 08/15/2011 SUN   TIME 08:33

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
```

CHK # : Indicates the number of times each check has been printed.

Paying a Soft Check

The example below shows adding a TIP to a soft check and payment of the soft check. The TIP function key is used to add the TIP. The TIP function key is only used with guest check tracking.

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

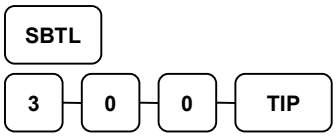
   

   Alternatively, if you entered a table number, enter the table number and press the **TABLE** key:

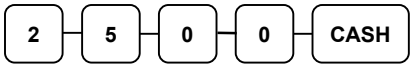
   

   Add additional items as necessary.

   If you wish to add a tip, press **SBTL**, enter the tip amount, press the **TIP** key:

2. 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.

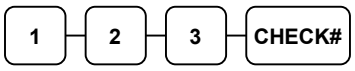
Sample of soft check printed on the receipt:

```
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:

   Alternatively, 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**:

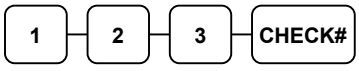
   

Receipt Example:

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

CHECK #                     #321
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:

   Alternatively, 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**:

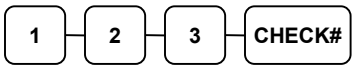
Receipt Example:

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

CHECK #                     #321
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

The example below shows adding a TIP to a hard check and payment of the hard check. The TIP function key is used to add the TIP. The TIP function key is only used with guest check tracking.

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

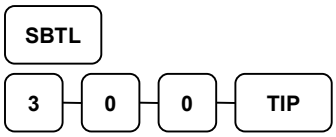
   

   Alternatively, if you entered a table number, enter the table number and press the **TABLE** key:

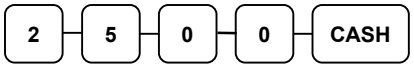
   

2. If necessary, add additional items.

   If you wish to add a tip, press **SBTL**, enter the tip amount, 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 slip printer:

```
DATE            12/01/2011            WED
     CHECK #                        #321
     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-900E* 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 Options" on page 202.
- 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, Refer to "Program 1500 – Macro Key Sequence Programming" on page 244.

Taking a Drive-thru Order

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

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

   SERVICE

Receipt Example:

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

HAMBURGER                  $2.00
FRIES                      $1.00
CHECK #                     #44
PBAL                       $0.00
SERVICE                    $3.00
BFWD                       $3.00
CLERK 1          000011    00001
```

Paying a Drive-thru Order

1. Press the **PBAL** key:

   PBAL
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.

   5 – **0** – **0** – **CASH**

Receipt Example:

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

CHECK #                     #44
PBAL                       $3.00
CHECKS PAID                $3.00
TOTAL                      $3.00
CASH                       $5.00
CHANGE                     $2.00
CLERK 1          000012    00001
```

Charge Posting

The ER-900E 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 (Refer to "System Option Programming" on page 167.) You must also assign the necessary function keys for your application.

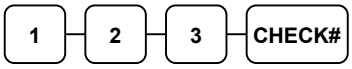
Charge Posting Function Keys

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 CHARGE)	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 CHARGE**.
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.

Charge Posting Operations

Opening an Account

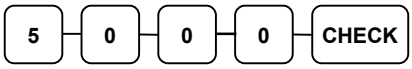
1. Enter the number of the account and press the **CHECK #** key. You may be required to turn the mode switch to the MGR position.



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.

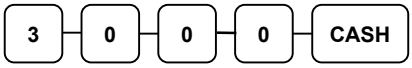
Posting New Charges

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.

Accepting Overpayment and Issuing Change

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

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



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

Closing a Charge Posting Account

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

12. Enter the amount (if required) and Press the appropriate tender key; **CASH, CHECK** or **CHARGE** to finalize.

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
```

Scale Operations

The *SAM4s ER-900E* can be interfaced to an optional load-cell scale, allowing direct automatic entry of an item's weight by using the **SCALE** key *(key code #386)*. You can also choose "manual entry" scale operation if you are working with a standalone scale that is not interfaced to the cash register.

- PLU's must be set as "scalable" status to allow scale multiplication. If you attempt an entry into a PLU that has been programmed to require scale entry (Refer to "Program 100 – PLU Status Programming" on page 156) an error tone will sound and you will be prompted to make a scale entry.
- PLU's can be set for "auto scale" status to speed up scale entries by automatically retrieving the weight on the scale and multiplying it times the amount entered.

The TARE weight can be entered using the **TARE** key *(key code #389)*. The tare weight is the amount of weight to be accounted for the container or packaging. By entering a tare weight (as required by law in some areas) the weight of the container is subtracted and only the true weight of the product is measured on the scale. The ECR can account for up to 5 Tare weights. By entering the tare number (1-5) the operator can automatically subtract the predetermined container weight when a product is on the scale.

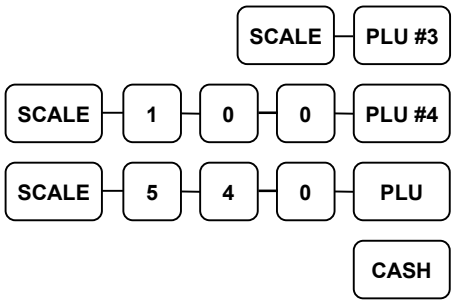
- PLU's can be set for "auto tare" status to automatically subtract one of the preprogrammed tare weights when the PLU is registered.

Refer to the "Service Mode Programming" and "Program Mode Programming" chapters to set your scale options. See:

- ***"Function Key Assignment"*** to place SCALE and TARE keys on the keyboard.
  - *SCALE key = key code 386*
  - *TARE key = key code 389*
- ***"RS232C Port Options"*** to attach a scale to one of the ports.
  - *Baud Rate = 9600, Parity = NONE, Data Bits = 7, Stop Bits = 1, Device Function = Scale*
  - *Scale Type = Appropriate selection for your scale type.*
- ***"Function Key Programming"*** to set options for the SCALE and TARE keys.
- ***"PLU Programming"*** to set scalable, auto scale, or auto tare status.

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

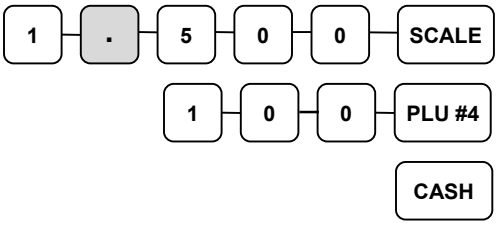
Open Keyboard PLU

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 (Refer to "Program 100 – PLU Status Programming" on page 156). You must use the decimal key to enter fractional manual weights.

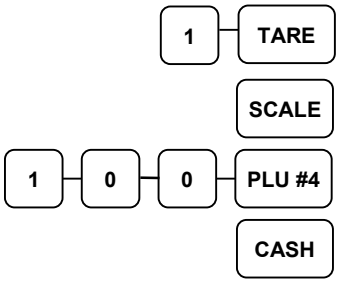



```
DATE 06/14/2011 SUN     TIME 03:15

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.



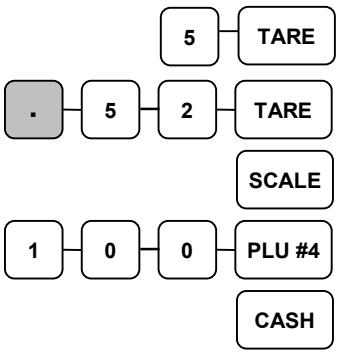

```
DATE 06/14/2011 SUN   TIME 03:15

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

Using X/Time

⇒ Use **X/Time** to multiply a quantity entry of PLU entries as described in the "Keyboard PLU Multiplication" section on page 49. The entry limit is 999.999 for the X/Time key multiplication.

⇒ The **X/Time** key can be used to calculate split pricing on items (purchase 2 items on a 3 for $3.00 offer) as shown in the PLU Registration \Keyboard PLU Entries chapter "Split Pricing" on page 49.

⇒ When the register is idle *(not in a transaction or other operation)* pressing the **X/Time** key will display the Date & Time in the register operator display. This operation will work in all keylock positions:

VOID-Mode, REG-Mode, X-Mode, Z-Mode and S-Mode.

```
05/31/2019
16:22:27
```

⇒ Press the **CLEAR** Key to return to the default display operation.

Price Changes

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 override 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"** Mode Switch position (manager control.)

Note: The Price Change function key was added beginning at software version v01.053.

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

   [PRICE CHANGE]

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

   [1] [4] [7] [PLU]

   Alternatively, you can 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.
   Edit additional items if necessary.

4. Press the appropriate tender key; **CASH, CHECK** or **CHARGE** to finalize.

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

PLU #147 T1                $2.99
TAX1                       $0.15
TOTAL                      $3.14
CASH                       $3.14
CLERK 1      000001        00001
```

PRICE CHANGE Entry

Quick Journal Review

This feature was designed for use with the ER-920E/925E where a separate journal printer is not provided. It allows the operator to quickly print out the details of the last transaction or transactions for review. Quick Journal Review is available if set in Print Option Programming, Option #37. Quick journal review prints the last ***xx*** **(0-99)** number of electronic journal lines as set at Print Option #37.

In the **REG** mode switch position (outside of a transaction) enter **1 0** and press the **SBTL** key. The recent number of electronic journal entries are printed.

Validation

Validation is possible when an optional slip printer is connected to one of the available RS-232C ports. Use the VALIDATION key (key code #401) to print a three-line validation on a separate form, check or piece of paper. Refer to the Validation Function Key programming on page 225 to define the validation printer port # and other validation settings.

Validations can be performed after registering a PLU, discount or payment operation by pressing the **VALIDATION** key. When validating a payment, system option #20 determines whether the sale amount or tender amount is printed on the validation. If an operation is programmed with validation compulsory, the cash drawer will not open until the compulsion is satisfied. Validation can be set to be compulsory after selected functions, including:

- Add Check
- Cash
- Charge 1-8
- Check
- Check Cashing
- Drive-Thru/Eat-In/Take-Out
- Error Correct
- Food Stamp Tender
- Merchandise Return
- Paid Out
- Received on Account
- Service
- Tax Exempt
- Waste
- % Key Functions

Sample Validation Printout

Validated PLU Entry

```
10 06/09/2023 15:51  000043  PLU
 CHECK                   $25.00
                        CLERK 10
```

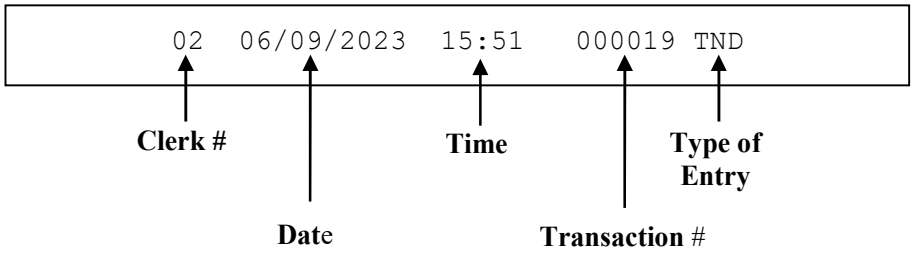
Validated Received On Account

```
02 06/09/2023 15:51  000119  R/A
 CHECK                   $11.11
                        CLERK 2
```

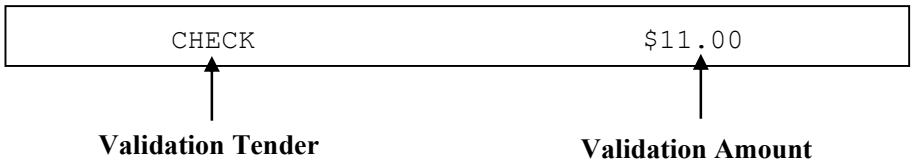
Validated Check Tender

```
 02 06/09/2023 15:51  000019 TND
 CHECK                   $11.11
                        CLERK 2
```

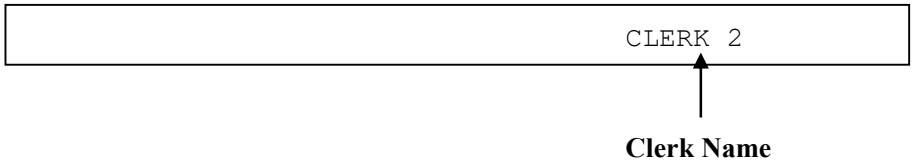
Validation First Line



Validation second Line



Validation Third Line



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

Managers will typically use the "Not Found PLU" report as a tool to verify & update items that were added to the PLU file using the Not Found PLU method. A list of up to 50 not found PLU items are retained in the report.

You can view the "Not Found PLU" report list from the **"X"** mode switch position. When the capacity is reached, you must clear (Z) the Not Found PLU report.

Turn the mode switch to the **"X"** or **"Z"** position: enter **1 5** and press **SUBTOTAL**.

Management Functions

(X-Mode) Manager Mode

All Management Functions take place with the Mode Switch in the **X** or **Z** position. In this way, only those with the correct key will have access to these functions. All reports require a control key that will access the **X** or **Z** position.

- **Functions & Operations –** Some register functions and operations may be programmed to require the Mode Switch in the **"X"** position (Manager Control) in order to operate.
- **Turn Receipt On/Off –** If the Receipt On/Off key is not on the keyboard.
- **"X" Reports –** *(eXamine)* Read and Print reports but without resetting report totals and counters.
- **"Z" Reports** will read, print and clear report totals *(**Z**ero out the Report totals)*.
- **Cash Declaration –** When the System Option is set to require Cash Declaration before running reports. See Cash Declaration operation on page 103.

The **X-Mode** is used for reading current totals on the ECR and for turning the Receipt Off and On. Some register operations may be programmed as 'Under MGR Control", which require the Mode Switch to be in the **X** position to allow the operation.

X Reports

- **"X"** Reports allow managers to read *(e**X**amine)* and print the **Daily X1** and **Period X2** report data without resetting the totals and counters within the report. See the Report Table on page 105 for a list of the available X-reports.

Receipt On and Off

Merchants may choose not to issue receipts automatically but just print a receipt when the customer requests a receipt. The merchant can press the RECEIPT ON/OFF function key if it is located on the keyboard to toggle the receipt printing On or Off. However, the RECEIPT ON/OFF key ***is not*** located on the default keyboard after the memory all clear procedure is performed.

If the Receipt On/Off key ***is not*** located on the keyboard merchants can still turn the receipt On or Off from the **"X"** Mode Switch position.

RECEIPT ON/OFF Operation

When the Receipt On/Off key is not on the Keyboard:

1. Turn the Mode Switch to the **"X"** position.
    - To turn the receipt ***OFF***: enter **9 9**, press the **SBTL** key. Enter **1**, press **CASH**.
    - To turn the receipt ***ON***: enter **9 9**, press the **SBTL** key. Enter **0**, press **CASH**.

(Z-Mode) Reset Mode

The Z-Mode is used to read and reset current report totals on the ECR, perform Datatran EFT operations and perform DC Direct setup and operations.

Z Reports

- **"Z"** Reports will read, print and reset *(Zero out)* report totals for the **Daily Z1** and **Period Z2** report data as selected. The report counter advances each time a Z report is generated. There is a separate counter for Daily Z1 and Period Z2 reports. See the Report Table on page 105 for a list of the available reports.

Datatran EFT Operations

Datacap Non-EMV, Datacap EMV Tran Series, DC Direct and Dejavoo related EFT operations *(integrated credit operations)* are performed in the Z-Mode as shown on the following pages. Follow the operations table for details for each of these devices in the:

- For Datacap EMV and Non-EMV equipment, see Datatran EFT Operations shown on page 97
- DC Direct Operations are shown on page 99
- Dejavoo Operations are shown on page 101
  Dejavoo is currently in development, it is not used at this time.

Note: ***Many operations in the Datatran EFT Operation menu are not used when EMV is enabled.***

In the Pre-EMV environment Datacap stored some information at the Tran that allowed the registers to run some reports, such as the local transaction report.

In the EMV environment Datacap is no longer storing information at the Tran so there are no reports available.

On the ER-900E we are storing some information on the approvals on the SD card in the register (EMVBACK.txt file). This is required to be able to perform *"By Record"* transactions. No credit card or customer information is stored at the ECR.

Datatran EFT Operations Table

Function	Mode	Procedure	Definition
Initialize EFT	Z	**500**, **SBTL**	Select Initialize EFT to verify communications from the ECR to the device, the software versions and installed networks is printed.
Open Batch	Z	**501**, **SBTL**	***For Non-EMV installations only.*** A batch must be opened every day before EFT credit card transactions can be performed.
Close Batch	Z	**502**, **SBTL**	You can use this operation to manually close the current batch. You must then open a new batch. For EMV installations: Typical EMV processing is setup to Auto-Batch. When closed a new batch is automatically opened.
Clear Current Batch	**S**	**503**, **SBTL**	The clear batch command erases all the current batch transactions from the Datatran memory even if they have not been settled.
Change Batch Number	Z	**504**, **SBTL**	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.
Issue Local Total	Z	**505**, **SBTL**	A summary of each kind of credit card and a batch total should match the totals within the ER-900E report before the Settle Batch is attempted.
Issue Transaction	Z	**506**, **SBTL**	The Local Transaction Report contains details of each transaction in the current batch.
Issue Batch Status	Z	**507**, **SBTL**	Prints the status for the current batch.
Dial In Load	Z	**508**, **SBTL**	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.
Dial Out Load	Z	**509**, **SBTL**	
Tip Entry	Z	**510**, **SBTL**	Used to enter gratuities indicated by the customer. Tip amounts added here are added to the 'TIP' total on the Financial and Clerk reports.
Pin Pad Initialize	Z	**511**, **SBTL**	Initializes the pin pad. Perform at the time of installation or as part of pin pad troubleshooting procedures.
Close Batch with Debit	Z	**512**, **SBTL**	***For Non-EMV installations only.*** Use this operation to manually close the current batch in Debit Applications. You must then open a new batch.
DataTran Diagnostics	Z	**513**, **SBTL**	***For Non-EMV installations only.*** Use with Datacap Support, if necessary to troubleshoot Datatran issues.
Log File Report*	Z	**514**, **SBTL**	***For Non-EMV installations only.*** Clears the Log File Report data.
Voice Authorization	Z	**515**, **SBTL**	***For Non-EMV installations only.*** Use to enter a voice authorized sale into the current batch.
EBT Voucher	Z	**516**, **SBTL**	***For EMV installations only.*** Use to Manually enter EBT transactions.
EMV Parameter Download	Z	**517**, **SBTL**	***For EMV installations only.*** This operation tells the Pin-Pad to get new parameters from Datacap.
Void Sale By Record Number	Z	**518**, **SBTL**	***For EMV installations only.*** Use these operations to void transactions when the card is not present. CAUTION: These voids will not correct ECR sales totals (i.e. PLU sales) but will maintain a total on the Financial Report. Use the void mode operation at the ECR to perform transaction voids that will correct the appropriate ECR sales totals.
Void Return By Record Number	Z	**519**, **SBTL**	

Function	Mode	Procedure	Definition
Voice Authorization	Z	**520**, **SBTL**	***For EMV installations only*** to Enter a transaction authorized via phone/voice.
Adjust (TIP) By Record Number	Z	**521**, **SBTL**	***For EMV installations only.*** Adjusts/corrects the current TIP entry for a transaction in the current batch.
Zero Authorization	Z	**522**, **SBTL**	***For EMV installations only*** to verify if a credit card is active or not reported as stolen.
Clear SD EMV File	Z	**523**, **SBTL**	***For EMV installations only.*** Deletes the EMVBACK.txt File (token file) stored on the SD Card. *(This operation should be ran Daily.)*

*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.

DC Direct Operations

Integrated payment processing utilizing Datacap DC Direct API is a semi-integrated solution (Out of Scope) for processing electronic payments with ER-900E Series ECR's running v02.000 or later. The ECR sends the transaction amount to the integrated payment device for authorization, then waits for a response for the payment approval or declined message.

WARNING! The DC Direct compatible firmware version 2.xxx and later cannot be used in ER-900 Series ECRs manufactured prior to March 2012. These older registers must continue to use the firmware versions 1.xxx.

It is recommended that dealers use the new registers with the "E" designation for DC Direct installations rather than attempting to replace the parts in older registers.

- ER-915E, ER-920E/925E, ER-940E/945E

DC Direct related Datatran operations are performed in the Z-Mode as shown in the DC Direct Operations. Follow the summary table for details for each of these processes. The DC DIRECT must be set up and connected to the internet to load the parameters.

After connecting the new EMV Datacap DC Direct Device to the ECR and all the required programming is completed, you must load the parameters for the EFT devices.

DC Direct Admin Functions

The DC Direct Functions\Admin Functions contain settlement and maintenance operations for the current batch. The Admin Functions menu operations are shown below, the EMVPAD Download operation should be performed after setting up the DC Direct\Settings.

Procedure	Operation	Definition
600 SBTL	**EFT PAD RESET**	Use this operation to Reset\Initialize the DC Direct PIN-Pad device.
611 SBTL	**Parameter Download**	This operation tells the DC Direct Pin-Pad device to get new parameters from Datacap. Perform this operation after installing the Datacap DC Direct Pin-Pad device.
612 SBTL	**Batch Summary**	Use this operation to print a summary of the transactions in the current batch.
613 SBTL	**Batch Close**	Closes the current batch; a new batch is opened automatically.
614 SBTL	**Delete SD EMV File**	This clears the internally stored EMV token file that stores the Authorization Response messages that allow the ECR to perform "By Record" operations.

DC Direct Transaction Operations

The DC Direct Functions\Transactions operations are used to add or delete transaction within the current batch. The Transactions menu operations are shown below, these optional operations and are not required for setting up the DC Direct with the ECR.

Procedure	Operation	Definition
600 SBTL	**EFT PAD RESET**	Use this operation to Reset\Initialize the DC Direct PIN-Pad device.
601 SBTL	**Void Sale By REC NO**	Use these operations to void transactions when the card is not present. **CAUTION:** These void operations will not correct the sale totals on the ECR, (i.e. PLU sales) but will maintain a separate total on the Financial Report. Use the VOID mode operation at the ECR to perform transaction voids that will correct the appropriate ECR sales totals.
602 SBTL	**Void Refund By REC NO**	
603 SBTL	**Voice Auth**	Use to enter a voice authorized sale into the current batch.
604 SBTL	**Zero Auth**	Use this operation to verify if a card is valid, activated, not reported as lost or stolen.
605 SBTL	**EBT Voucher**	Used to manually enter EBT transactions.
606 SBTL	**Gift Cash Out**	This operation allows the customer to receive a CASH OUT payment for the remaining balance available on their gift card.
607 SBTL	**Void Gift Activate**	After issuing a Gift Card, this operation can be used to nullify the issuance, but it must be performed as the very next transaction.
608 SBTL	**Refund By REC NO**	Use this operation to return to the customer the total sale amount.
609 SBTL	**Adjust By REC NO**	Use this operation to adjust to the customer a partial amount of a sale.

Dejavoo Operations

Dejavoo is currently in development, it is not used at this time.

The Dejavoo integrated payment *(Added at v02.012)* must be set up to connect and utilize the Dejavoo device with the ECR and the Parameter Download must be performed. The Dejavoo must be connected to the internet to load the parameters. The parameters are loaded from the Pin-Pad, there is no operation on the ECR for this.

The new ER-900 series registers with the "E" designation have the addition of a LAN port for interfacing with Dejavoo integrated payment devices. It is recommended that dealers use the new registers with the "E" designation for Dejavoo installations rather than attempting to replace the parts in an older series registers.

All Dejavoo EMV integrated credit related operations are performed in the Z-Mode as shown below. Follow the Dejavoo Admin Functions and Transactions Table for details for each of these processes.

PARAM Download

The DEJAVOO Pin-Pad parameters are loaded from the Pin-Pad, there is no operation on the ECR for this.

The **"PARAM DOWNLOAD"** procedure is as shown here.

1. Press the 'Yellow Star'.
2. Upgrade the APP.
3. Enter the Password.
4. Download Parameter.

Dejavoo Admin Functions

The Dejavoo Admin Functions contain settlement and maintenance operations for the current batch. The Admin Functions menu operations are shown below. These are the same as for the DC Direct.

Procedure	Operation	Definition
611 SBTL	**Parameter Download**	This is ***Not Used with Dejavoo***, parameters are downloaded from the Dejavoo Pin-Pad.
612 SBTL	**Batch Summary**	Use this operation to print a summary of the transactions in the current batch.
613 SBTL	**Batch Close**	Closes the current batch; a new batch is opened automatically.
614 SBTL	**Delete SD EMV File**	This clears the internally stored token file that stores the Authorization Response messages that allow the ECR to perform "By Record" operations.

Dejavoo Transaction Operations

The Dejavoo Transactions operations are used to add or delete transaction within the current batch. The Transactions menu operations are shown below. These are the same as for the DC Direct.

Procedure	Operation	Definition
601 SBTL	**Void Sale By REC NO**	Use these operations to void transactions when the card is not present. **CAUTION:** These void operations will not correct the sale totals on the ECR, (i.e. PLU sales) but will maintain a separate total on the Financial Report. Use the VOID mode operation at the ECR to perform transaction voids that will correct the appropriate ECR sales totals.
602 SBTL	**Void Refund By REC NO**	

System Reports

System Reporting

System reports are divided into two basic categories, X-Reports and Z-Reports. Refer to the Report Table on page 105 for details.

X Reports

- **"X"** Reports allow managers to read and print the Daily ("X1") and Period ("X2") report data *(e**X**amine)* without resetting the totals and counters within the report.

Z Reports

- **"Z"** Reports will read, print and clear *(**Z**ero out)* report totals for the Daily ("Z1") and Period ("Z2") report data as selected.

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 the Report Table chart on the following page.
- Refer to "Sample Reports" on page 105 for an example of each report.
- If the register is programmed for pop-up clerks, a clerk must sign on in the REG Mode Switch position prior to running reports.

Running Reports – General Instructions

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

101 SBTL – Saving Reports to SD Card

Reports can be saved in **.rep** file format *(report format)* for viewing with the 900 PC Utility or **.csv** file format *(spreadsheet format)* that can be opened in Microsoft Excel™. The ER-900E will write the program files to different folders depending on whether REP or CSV format is selected.

The Report SD Backup can also be performed from the S-Mode 101 SBTL see page 135 for details.

- **SD:\ER900\CSVBACK\STORENAME\DATE\TIME**
  To save the current **X1** report data in **.csv** format, turn the Mode Switch to the **"X"** position.
- **SD:\ER900\REPBACK\STORENAME\DATE**
  To save the current **X1** report data in **.rep** format, turn the Mode Switch to the **"S"** position.

Cash Declaration

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

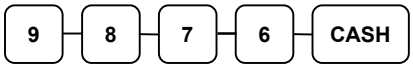
You can count all the cash in the drawer total in one step or enter each individual type of bill/coin and checks separately and let the register function as an adding machine. The X/TIME key can be used to multiply the denomination of currency times your count.

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

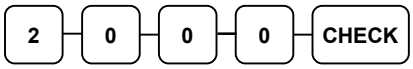
Example Cash Declaration:

1. Turn the Mode Switch to the **"X"** or **"Z"** position (depending upon the type of report you are taking).
2. Enter **90** and press the **SBTL** key.

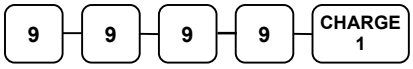
3. Enter the total of cash, Press **CASH**.



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



5. Enter the Total of charges, Press **CHARGE 1 ~ CHARGE 8**.



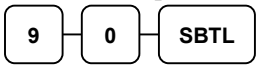
6. Press the **CASH** key to total the declaration.


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

***     CASH DECLARATION     ***
CASH                       $98.76
CHECK                      $20.00
CHARGE 1                   $99.99
INPUT AMT                 $218.75
DRAWER TTL                $219.53
DIFFERENCE                  -0.78

CLERK 1        00001       00000
```

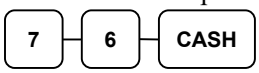
Cash Declaration By Denomination:

Alternately, you can enter each denomination separately:

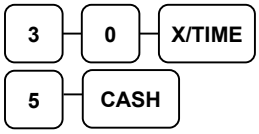
1. Turn the Mode Switch to the **"X"** or **"Z"** position (depending upon the type of report you are taking.)
2. Enter **90** and press the **SBTL** key.



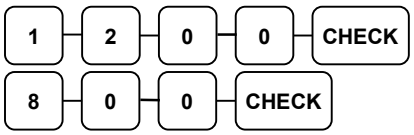
3. Enter the total of pennies, Press **CASH**.



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
```

Report Table

Report Type	Report Number	Report Level	Mode Switch Position	Key Sequence
Financial	**1**	Daily (X1/Z1)	X / Z	**1 – SBTL**
		Period (X2/Z2)	X / Z	**201 – SBTL**
Time	**2**	Daily (X1/Z1)	X / Z	**2 – SBTL**
		Period (X2/Z2)	X / Z	**202 – SBTL**
All PLU	**3**	Daily (X1/Z1)	X / Z	**3 – SBTL**
		Period (X2/Z2)	X / Z	**203 – SBTL**
All Clerk	**4**	Daily (X1/Z1)	X / Z	**4 – SBTL**
		Period (X2/Z2)	X / Z	**204 – SBTL**
Group	**5**	Daily (X1/Z1)	X / Z	**5 – SBTL**
		Period (X2/Z2)	X / Z	**205 – SBTL**
All STOCK	**6**	Daily (X1/Z1)	X / Z	**6 – SBTL**
Daily Sales	**8**	Period (X2/Z2)	X / Z	**208 – SBTL**
Individual Clerk Report	**9**	Daily (X1)	X	**9 – SBTL – # – CLERK – # – CLERK**
		Period (X2)	X	**209 – SBTL – # – CLERK – # – CLERK**
Open Table/Check	**11**	Daily (X1/Z1)	X / Z	**11 – SBTL**
From/To PLU	**13**	Daily (X1)	X	**13 – SBTL – # – PLU – # – PLU**
		Period (X2)	X	**213 – SBTL – # – PLU – # – PLU**
From/To STOCK	**14**	Daily (X1)	X	**14 – SBTL – # – PLU – # – PLU**
Not Found PLU Report	**15**	Daily (X1/Z1)	X / Z	**15 – SBTL**
DRAWER TOTAL	**111**	Daily (X1)	X	**111 – SBTL**
Clear SD EMV File	**523**	Z	Z	**523 – SBTL**

Electronic Journal Reports

Report Type	Report Number	Report Mode	Mode Switch Position	Key Sequence
PRINT ALL EJ	300	X	X	300 – SBTL
PRINT EJ CASH	301	X	X	301 – SBTL
PRINT EJ CHECK	302	X	X	302 – SBTL
PRINT EJ CHARGE	303	X	X	303 – SBTL
PRINT EJ %	304	X	X	304 – SBTL
PRINT EJ RA/PO	305	X	X	305 – SBTL
PRINT EJ RETURN	306	X	X	306 – SBTL
PRINT EJ EC/VOID	307	X	X	307 – SBTL
PRINT EJ NO SALE	308	X	X	308 – SBTL
PRINT EJ CANCEL	309	X	X	309 – SBTL
PRINT EJ BY CLERK	401 – 499	X/Z	X/Z	401 ~ 499 – SBTL (Depends on Clerk Allocation)
EJ RESET	399	Z	Z	399 – SBTL

Note: ***Quick Journal Review*** is available if set in Print Option Programming (see option #37). In the REG mode switch position (outside of a transaction) enter 1 0 and press the SBTL 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.

Sample Reports

Report Notes

Report Header: The Date & Time the report was ran is printed on the top line. The next line shows the Report Level and the Report Counter. Below the report level & counter is the Report Type that was ran.

Note: The Report Counter indicates the number of Z reports that have been generated for this Report Level & Report Type. X1 Financial report for example. After each Z report, this number will increase on the next X report.

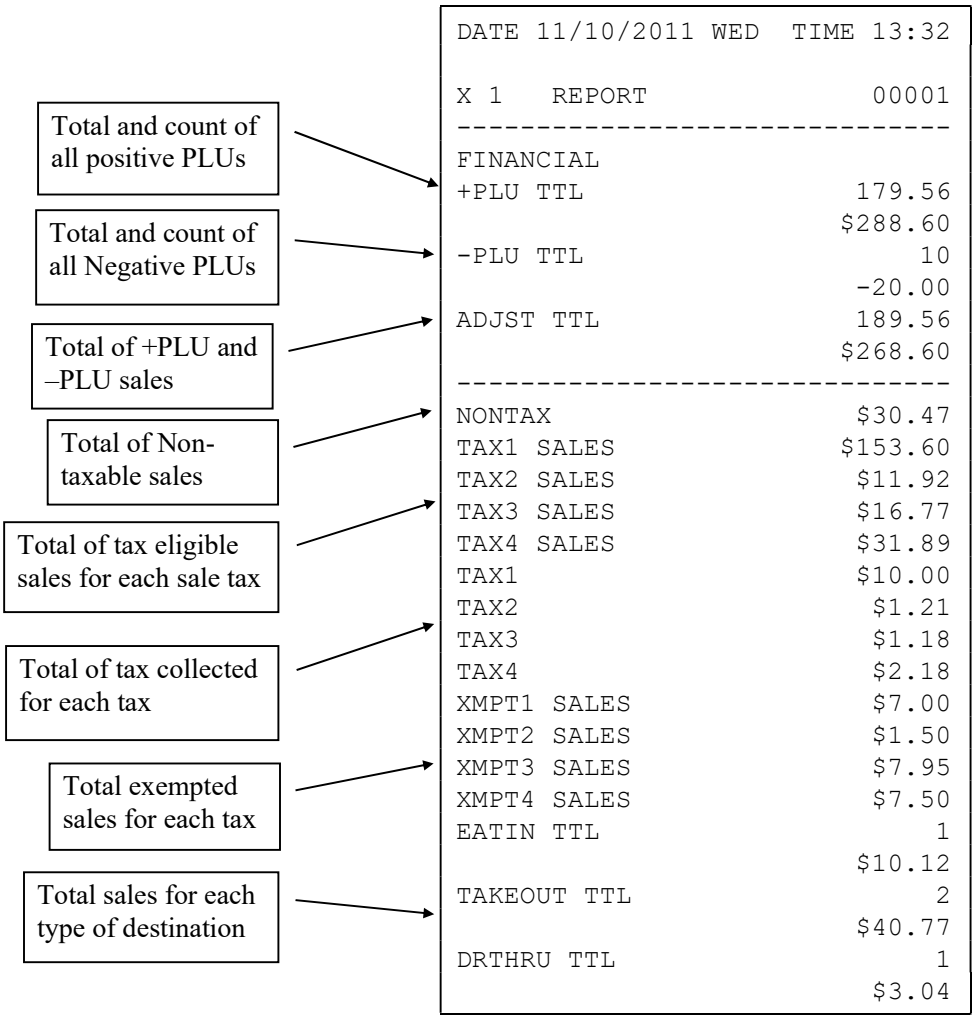
Report Footer: The last line on all reports shows the Employee that generated the report, the Consecutive Number, and the Machine Number *(if used)*.

Note: The Consecutive Number advances each time any report is generated or transaction registered. There is only one Consecutive Number counter for all operations. The counter advances when any X1, X2 or Z1, Z2 report is generated.

Financial

The report below has the System Option: "Skip media totals with zero activity on the Financial report?" set to No.

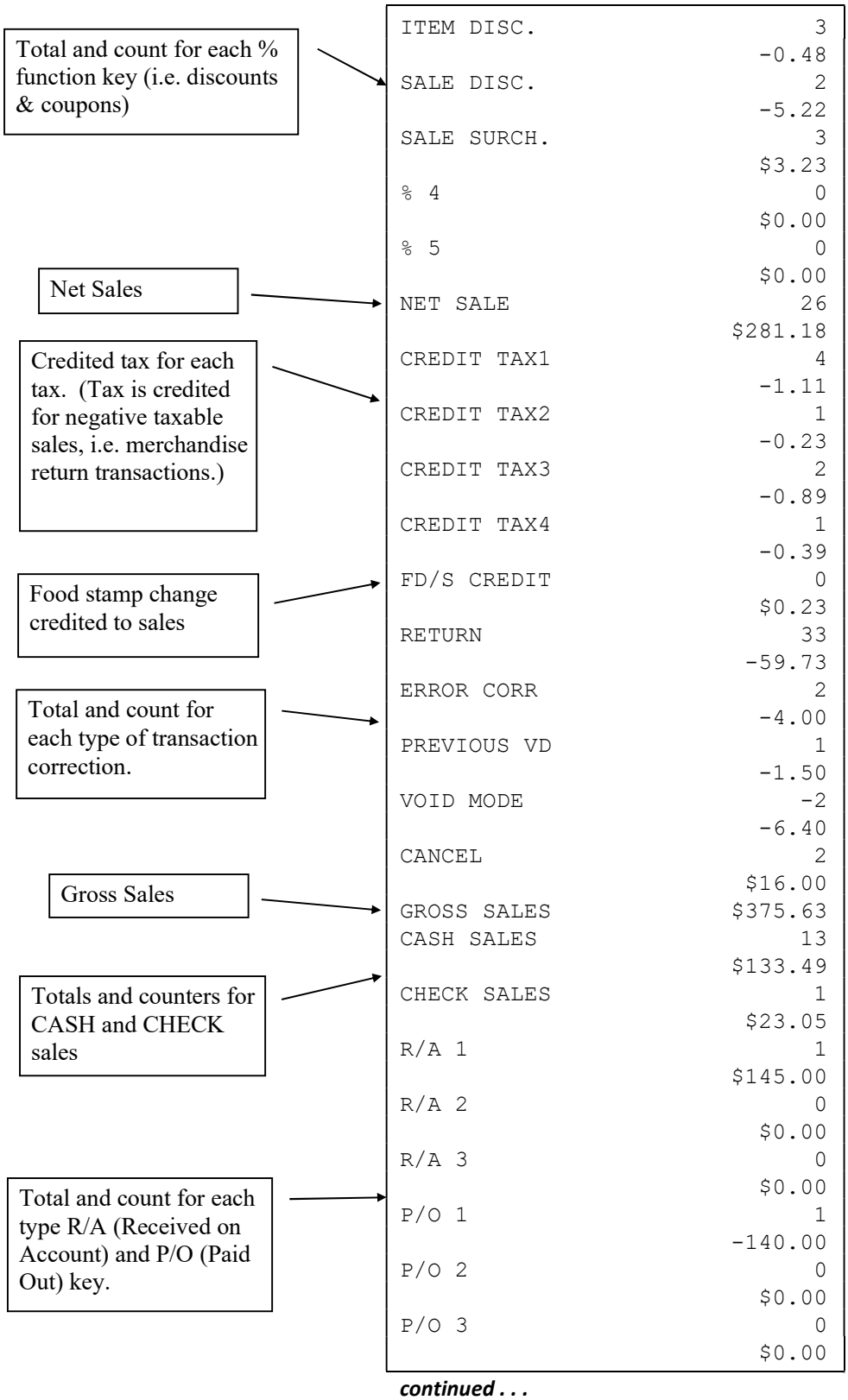
Daily = 1 SBTL; Period = 201 SBTL




```
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
```

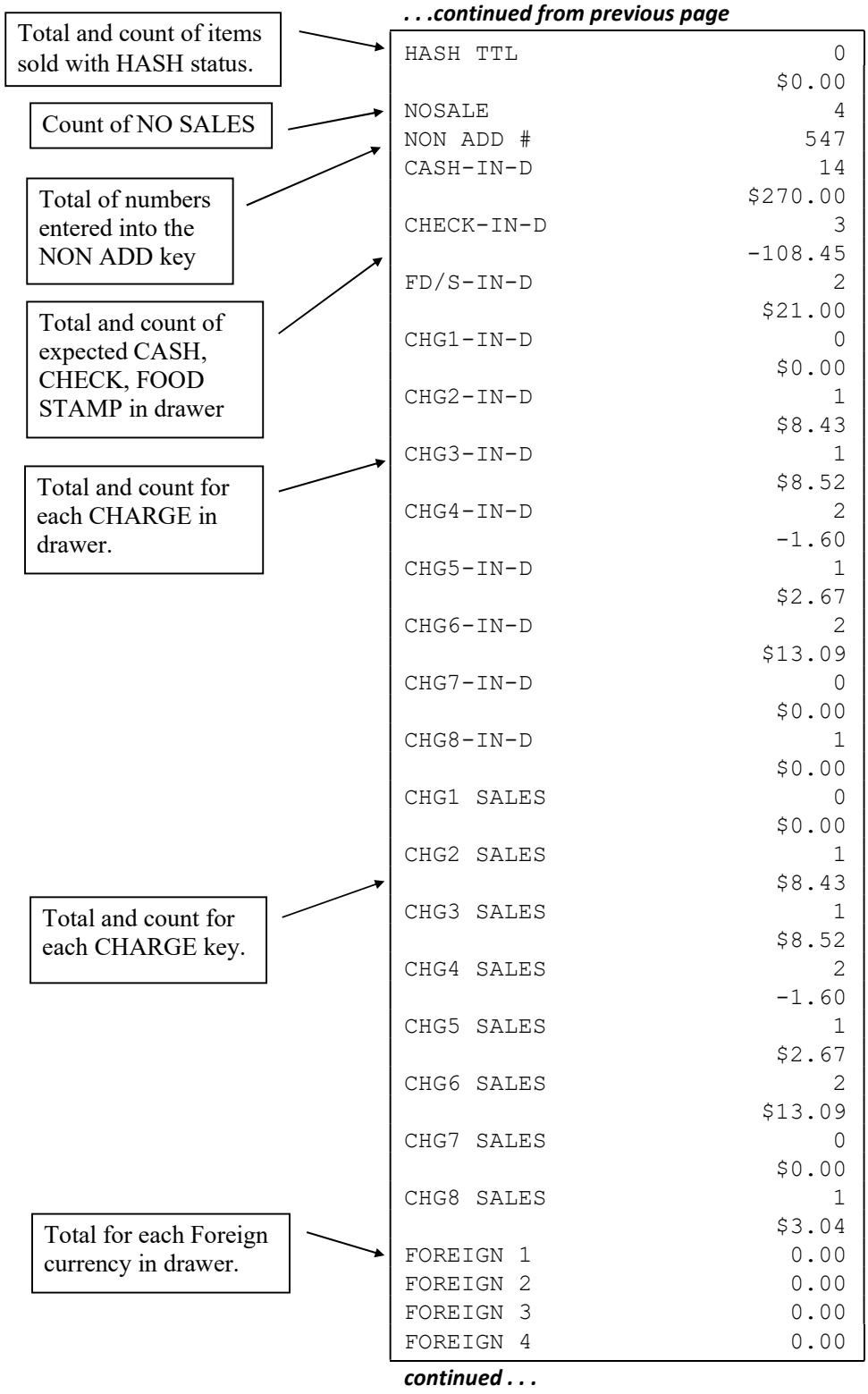
continued . . .

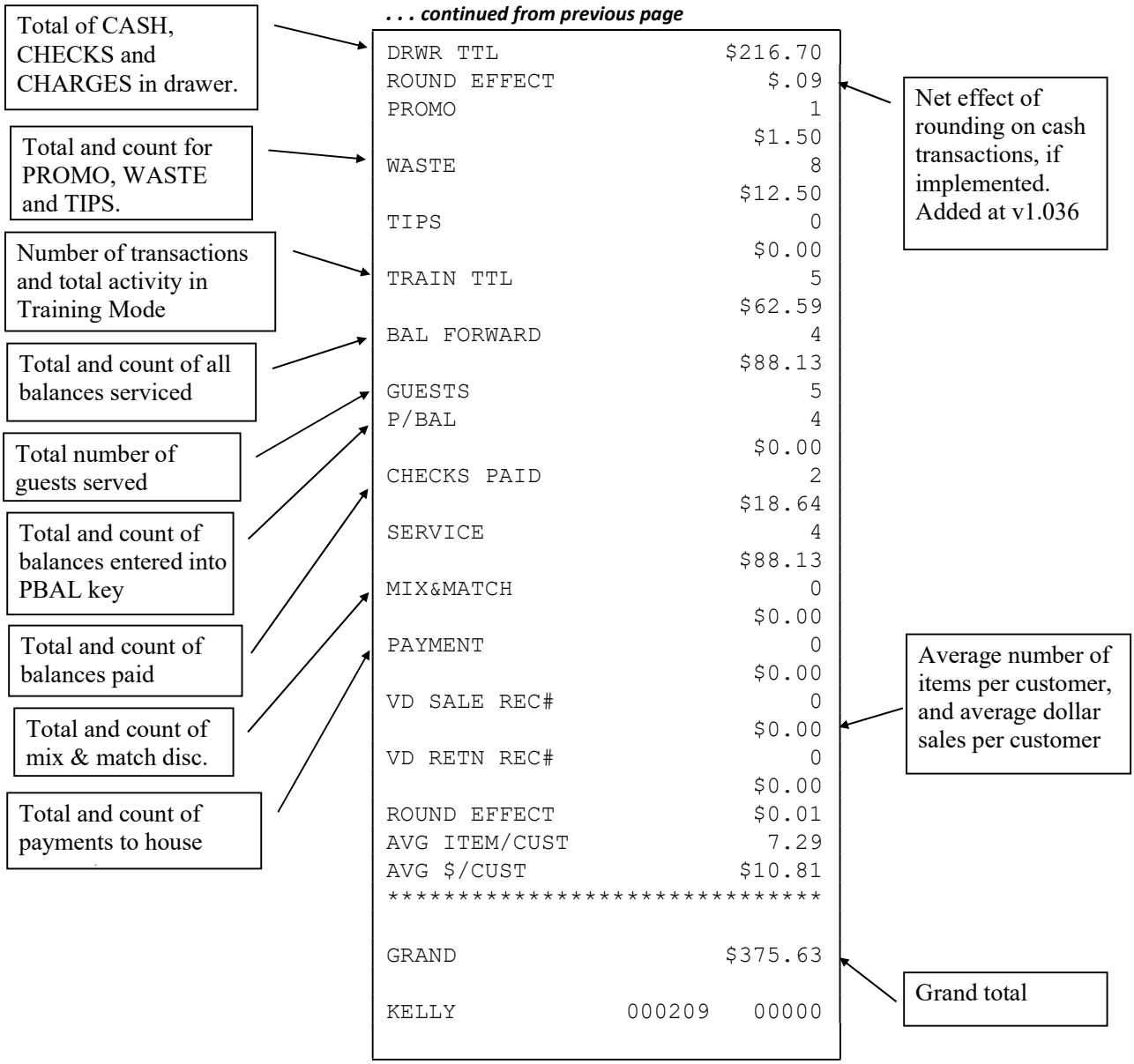
. . . continued from previous page



ITEM DISC.	3
	-0.48
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 . . .

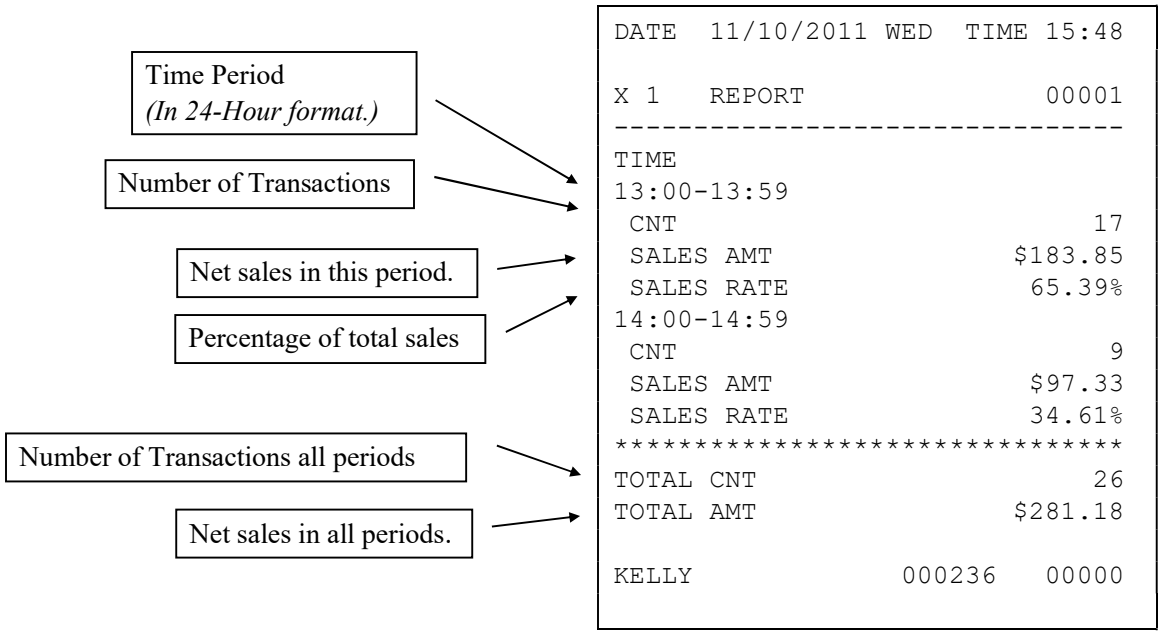

. . .continued from previous page
Total and count of items sold with HASH status.
Count of NO SALES
Total of numbers entered into the NON ADD key
Total and count of expected CASH, CHECK, FOOD STAMP in drawer
Total and count for each CHARGE in drawer.
Total and count for each CHARGE key.
Total for each Foreign currency in drawer.
HASH TTL 0
$0.00
NOSALE 4
NON ADD # 547
CASH-IN-D 14
$270.00
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 . . .


. . . continued from previous page
DRWR TTL $216.70
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
VD SALE REC# 0
$0.00
VD RETN REC# 0
$0.00
ROUND EFFECT $0.01
AVG ITEM/CUST 7.29
AVG $/CUST $10.81
****
GRAND $375.63
KELLY 000209 00000
Total of CASH, CHECKS and CHARGES in drawer.
Total and count for PROMO, WASTE and TIPS.
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
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

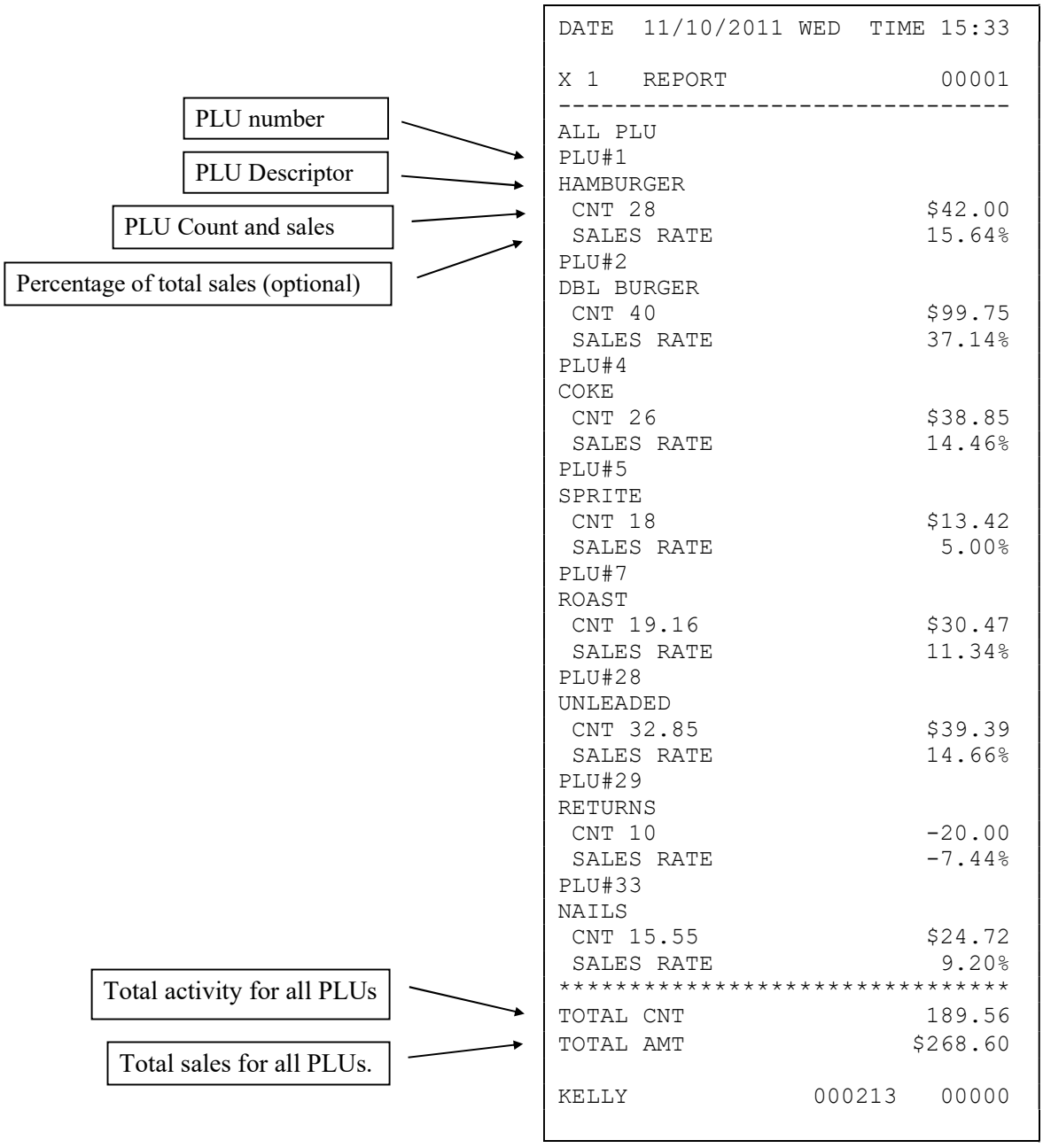
The time report breaks down sales data by each hour based on a 24 hour day.

Daily = 2 SBTL; Period = 202 SBTL



PLU

Daily = 3 SBTL; Period = 203 SBTL

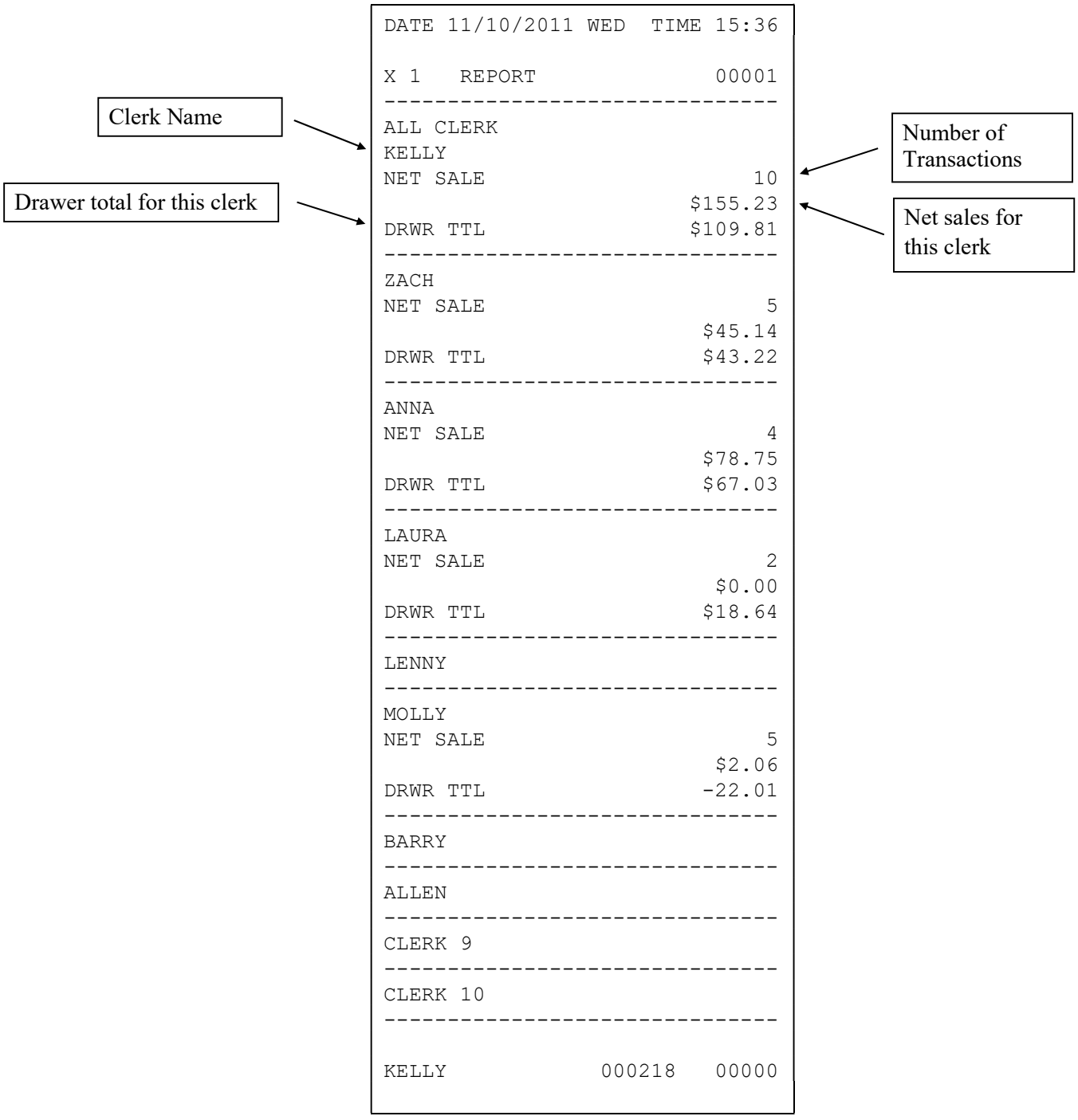


Clerk

Note: Media totals can be printed for each clerk if selected in Print Option Programming.

Each clerk will print on the report, when the Print Option: "Skip media totals with zero activity on the Clerk report?" is selected, the clerk descriptor prints but no NET SALE or DRWR TTL is printed.

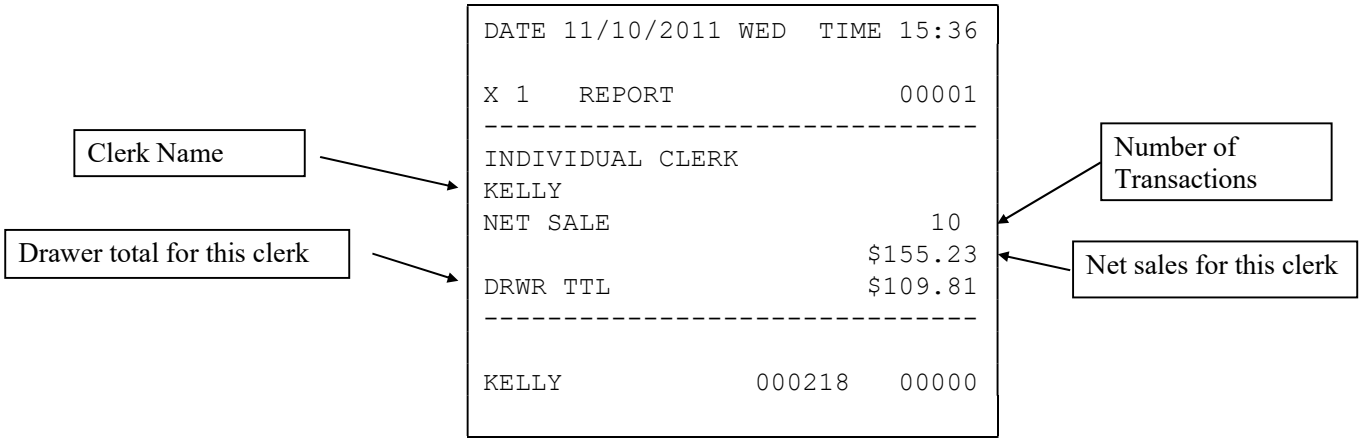
Daily = 4 SBTL; Period = 204 SBTL




```
DATE 11/10/2011 WED  TIME 15:36

X 1   REPORT               00001
------------------------------
ALL CLERK
KELLY
NET SALE                     10
                         $155.23
DRWR TTL                 $109.81
------------------------------
ZACH
NET SALE                      5
                          $45.14
DRWR TTL                  $43.22
------------------------------
ANNA
NET SALE                      4
                          $78.75
DRWR TTL                  $67.03
------------------------------
LAURA
NET SALE                      2
                           $0.00
DRWR TTL                  $18.64
------------------------------
LENNY
------------------------------
MOLLY
NET SALE                      5
                           $2.06
DRWR TTL                 -22.01
------------------------------
BARRY
------------------------------
ALLEN
------------------------------
CLERK 9
------------------------------
CLERK 10
------------------------------

KELLY            000218   00000
```

Individual Clerk

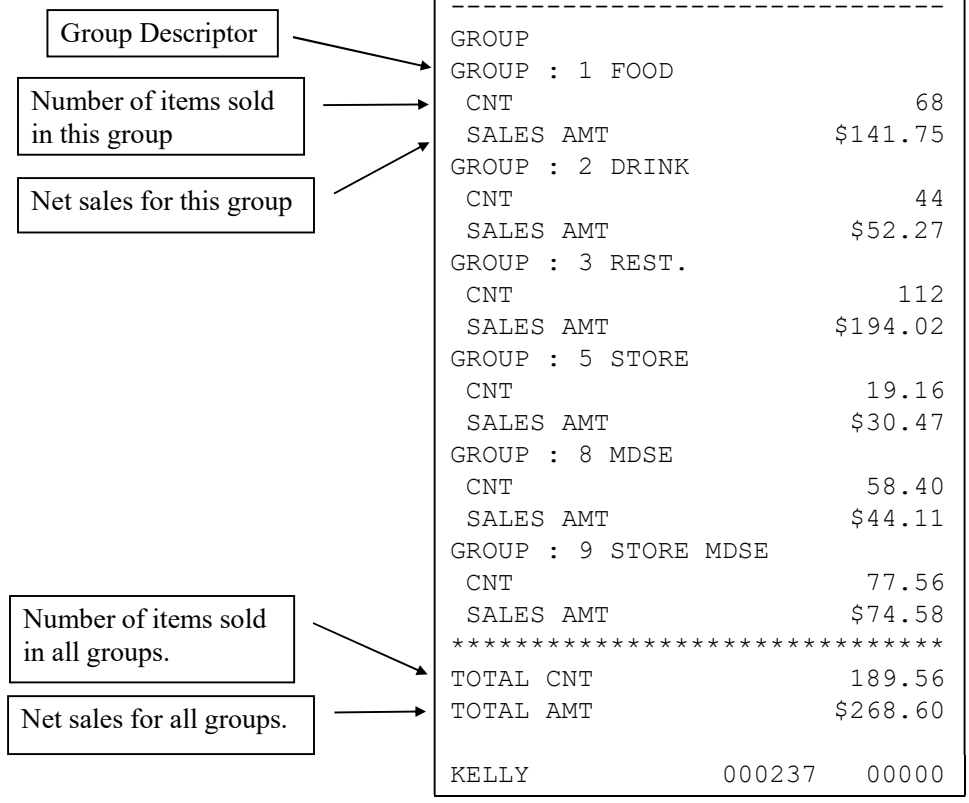
Daily = 9 SBTL; Period = 209 SBTL




```
DATE 11/10/2011 WED  TIME 15:36

X 1   REPORT              00001
------------------------------
INDIVIDUAL CLERK
KELLY
NET SALE                    10
                         $155.23
DRWR TTL                 $109.81
------------------------------

KELLY            000218   00000
```

Groups

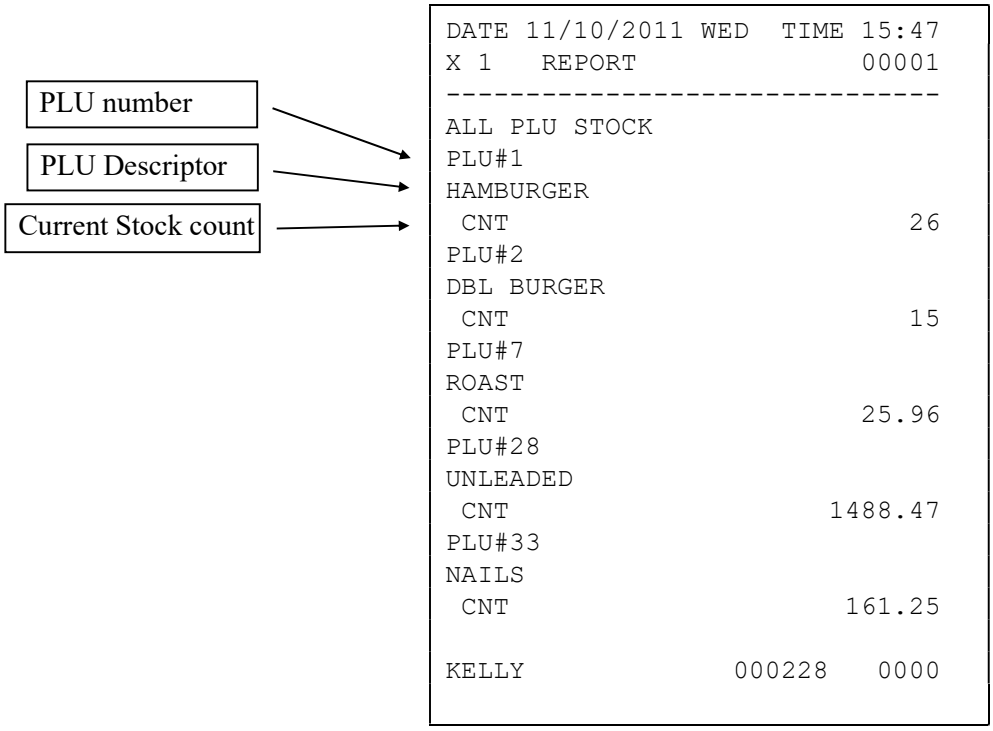
Daily = 5 SBTL; Period = 205 SBTL




```
DATE 11/10/2011 WED  TIME 15:34
X 1   REPORT              00001
------------------------------
GROUP
GROUP : 1 FOOD
 CNT                        68
 SALES AMT               $141.75
GROUP : 2 DRINK
 CNT                        44
 SALES AMT                $52.27
GROUP : 3 REST.
 CNT                       112
 SALES AMT               $194.02
GROUP : 5 STORE
 CNT                      19.16
 SALES AMT                $30.47
GROUP : 8 MDSE
 CNT                      58.40
 SALES AMT                $44.11
GROUP : 9 STORE MDSE
 CNT                      77.56
 SALES AMT                $74.58
******************************
TOTAL CNT                 189.56
TOTAL AMT                $268.60

KELLY            000237   00000
```

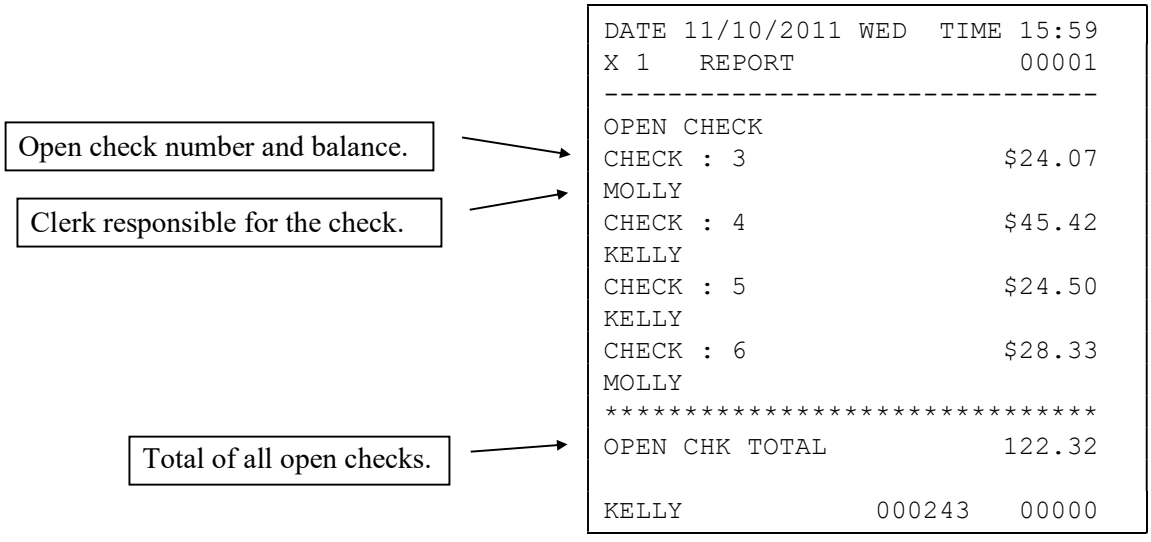
Stock

Daily = 6 SBTL; Period = 206 SBTL



Open Check

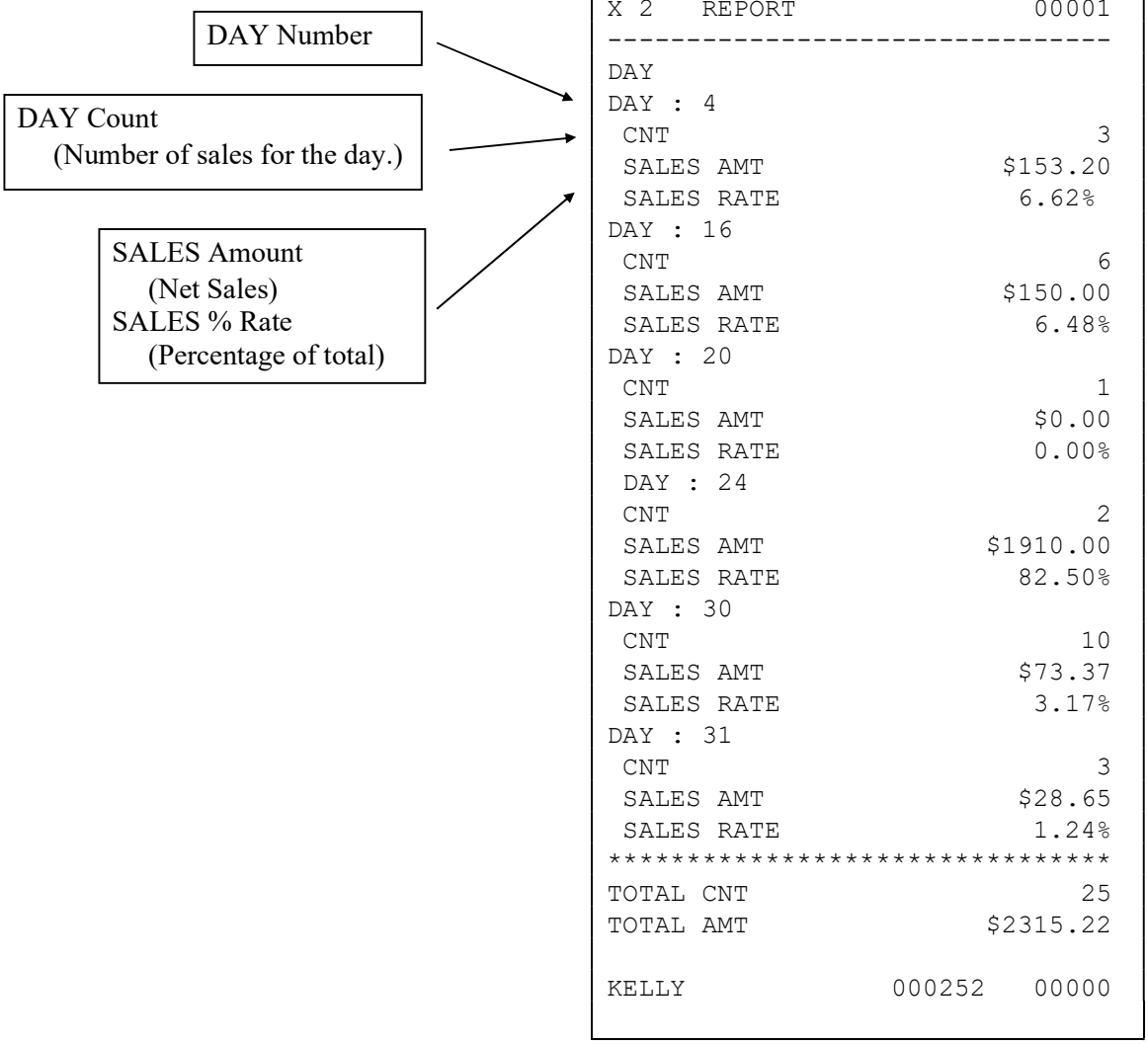
Only Daily = 11 SBTL



Daily Sales

The Daily Sales report lists the net sales for each day of the month. The Daily Sales report has System Option #17 to Reset the Daily Sales report "Z" counter after a Z2 Daily Sales report is ran.

Daily = 8 SBTL; Period = 208 SBTL




```
DATE  11/10/2011 WED  TIME 18:48
X 2   REPORT                00001
-------------------------------
DAY
DAY : 4
 CNT                           3
 SALES AMT                $153.20
 SALES RATE                6.62%
DAY : 16
 CNT                           6
 SALES AMT                $150.00
 SALES RATE                6.48%
DAY : 20
 CNT                           1
 SALES AMT                  $0.00
 SALES RATE                 0.00%
 DAY : 24
 CNT                           2
 SALES AMT               $1910.00
 SALES RATE                82.50%
DAY : 30
 CNT                          10
 SALES AMT                 $73.37
 SALES RATE                 3.17%
DAY : 31
 CNT                           3
 SALES AMT                 $28.65
 SALES RATE                 1.24%
*******************************
TOTAL CNT                     25
TOTAL AMT                $2315.22

KELLY             000252   00000
```

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	$

S-Mode Programming

Overview

The Service Mode programming is meant to be a one-time event since the most basic register and system options are fixed at this time. Changes to the Service Mode programming may influence the way the machine operates and it is recommended that they are not done by the end user.

The Service Mode keylock position is only accessible with the "C" key. This key should be released to the end user ONLY when they fully understand S-Mode programming procedures. All S-Mode programming is best done at the dealer level. Existing totals may be reset to zero accidentally and the existing program may also be destroyed as well.

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.

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

Clearing Memory

Before you use your ER-900E for the first time, before the customer's program is entered. Perform a memory all clear to ensure all previous programming, totals and counters are cleared and that the default program is installed.

Go to "Memory All Clear" on page 30 to complete the procedure.

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

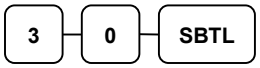
Additional memory clearing procedures are available.

Clear All Totals and Counters

1. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
2. Enter **20** and press the **SBTL** key.

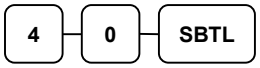
Clear Grand Total

1. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
2. Enter **30** and press the **SBTL** key.



Clear PLU File

1. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
2. Enter **40** and press the **SBTL** key. A confirmation dialog will ask "ARE YOU SURE ?".
3. Press **CASH** to continue or press **CLEAR** to abort the process.



EPROM Information

The ER-900E register software is loaded into a Flash EPROM. This procedure will provide a receipt with the current firmware version, checksum, boot/app checksum codes, PLUs Used, the EFT Version and date for the Flash EPROM.

WARNING! The DC Direct compatible firmware version 2.xxx and later cannot be used in ER-900 Series ECRs manufactured prior to March 2012. These older registers must continue to use the firmware versions 1.xxx.

1. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
2. Enter **5 0** and press the **SBTL** key.

3. After a short delay, the register will print the **EPROM INFO** receipt.
   * MAC ADDRESS printing was added at v02.006 and later.

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

          EPROM INFO.

VERSION  : USA 02.013
CHECKSUM : 3742
BOOT/APP : 9B02/9C40
PLUs USED: 300/2000
EFT Ver. : DTRAN 01.000
            APR 14/2026

MAC ADDRESS : 1E.13.62.A1.B1.01

CLERK 3           000027   00000
```

Self-Tests

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

1. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
2. Enter the test number from the chart below and press the **SBTL** key.

Self-Test Operations

Test	Key Sequence	Results/Instructions
Printer	**10 SBTL**	The receipt printer generates a printer test pattern, and the drawer will open at the end of the test.
Display	**11 SBTL**	Displays illuminate a test pattern.
Keyboard	**12 SBTL**	Press any key. The key's current function is displayed. Turn the mode switch to end the test.
Mode Lock	**13 SBTL**	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 SBTL** **24 SBTL** **34 SBTL** **44 SBTL**	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 SBTL**	The receipt prints a sample ticket and opens the cash drawer. The print is repeated until the mode switch is turned.
MCR Test	**17 SBTL**	Swipe a card. The printer prints card track data.
SD Card	**19 SBTL**	Insert an SD card. Checks SD card operation.

Memory Allocation

Memory Allocation is set to default when the Memory All Clear operation is performed as described in the "Clearing Memory" chapter on page 119.

The procedures described in this area are security sensitive. Memory is automatically cleared after memory allocation is set.

WARNING! Do not change memory allocation after your system has been installed unless you are aware that all programs, totals and counters will be cleared.

Memory Allocation Program

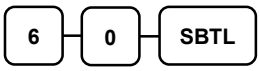
Once you have determined the memory variables you wish to set, you can set them in the memory allocation program. If you attempt to allocate more options than memory allows, the message "MEMORY ALLOCATION SIZE OVER" will print on the receipt and journal.

NOTE: When entering in your allocation settings, you can ignore the decimal placement. For example, 10,000 will display as 100.00, this is normal.

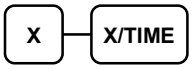
Setting memory allocation may require some trial and error; the register will not allow over-allocation.

Note: You must allocate at least one Check for each clerk *before* increasing the allocation setting for the Clerks.

1. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
2. To Allocate Memory enter **6 0** and press the **SBTL** key.



3. Refer to the allocation chart; enter the digit representing the allocated area you want to enter or edit and press the **X/TIME** key.



4. Enter the desired allocation value.

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.

X	Allocated Area
1	PLU
2	CLERK
3	GROUP
4	CHECK# (Number of open checks allowed when using guest checks.)
5	SOFT CHECK LINES
6	CHECK TYPE : Hard(1), Soft(0)
7	# of PRICE LEVELS (1 or 2)
8	MIX & MATCH
9	ELECTRONIC JOURNAL LINES

Memory Capacity

- **16MB** for models produced after March 2013 (serial number 1303XXXXXX or later.) No further memory expansion is available.
- **4MB** for models produced before March 2013 (serial number 1302XXXXXX or earlier.) Memory on these models is fixed and cannot be expanded.

Minimum and Maximum Feature Capacities

The memory allocation program determines how memory is allotted to support the allocation categories. Maximums for memory allocation variables depend upon how each memory option is set. Total available & total used memory is monitored at the top of the screen.

- (Maximum limits for 4MB memory models are noted in *parenthesis*.)

NOTE: When entering in your allocation settings, you can ignore the decimal placement. For example, 10,000 will display as 100.00, this is normal.

1. **PLUs –** You must allocate for a **minimum of 300 PLUs**, to a maximum of approximately 23,950 *(4000)* is determined by available memory.
2. **Clerks –** You must allocate **at least 1 clerk**, to a maximum of 99. (**Note**: You must allocate at least one Check for each Clerk ***before*** increasing the allocation setting for the # of Clerks.)
3. **Groups –** You must allocate **at least 1 group**, to a maximum of 99 group.
4. **Check# –** Allocate for a maximum of approximately 500 *(200)* hard or soft checks. (**Note**: You must allocate at least one Check for each Clerk ***before*** increasing the allocation setting for the # of Clerks.)
5. **Soft Check Lines –** You can allocate a maximum of 230 *(100)* lines per check.
6. **Check Type –** Select to use a hard check operation or soft check operation.
7. **Levels –** Allocate one price level or two price levels.
8. **Mix & Match Discount Tables –** Default is 10 you can allocate a maximum of 100.
9. **Electronic Journal –** Default is 1000 lines; maximum is 50,000 *(1000)* lines.

Important Memory Allocation Notes

- Memory allocation variable maximums are theoretical. For example, if all other variables are at or near zero, then 23,950 (4000) PLUs are possible.
  - Check# memory, especially soft check memory, and clerk memory consume considerable memory.
- 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. If you wanted 99 Clerks, you must first increase the allocation for CHECK# to at least 99 Checks. 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 "1" so that memory may be used for other allocation settings.

Memory Allocation Program Scan

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

1. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
2. Enter **6 0**, press the **SBTL** 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

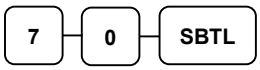
Function keys may be relocated, inactivated or changed with this program. For example, you may wish to add functions, such as PREVIOUS BALANCE and SERVICE, which may not be placed on the default keyboard. Or perhaps, you may wish to remove a function, such as CANCEL, for security reasons.

70 SBTL – Assigning Function Keys

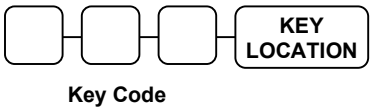
Please note the following limitations:

- If you assign the same function code to more than one key location, all those function keys will operate exactly the same as the original - you will not get separate totals and counters on reports for duplicated keys.
- You can reassign keys only in locations that are programmable. Refer to "Keyboards" on page 21 to determine the key locations that are fixed and cannot be changed.

1. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
2. Enter **7 0** and press the **SBTL** key.



3. Refer to "Function Key Codes" on page 126 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
1-300	NLU 1 *Through* NLU 300
301	Numeric 1
302	Numeric 2
303	Numeric 3
304	Numeric 4
305	Numeric 5
306	Numeric 6
307	Numeric 7
308	Numeric 8
309	Numeric 9
310	Numeric 0
311	Numeric 00
312	Decimal
313	#/NS
314	%1
315	%2
316	%3
317	%4
318	%5
319	X/TIME
320	ADD CHECK
321	CANCEL
322	CASH
323	CHARGE 1
324	CHARGE 2
325	CHARGE 3
326	CHARGE 4
327	CHARGE 5
328	CHARGE 6
329	CHARGE 7
330	CHARGE 8
331	CHECK CASHING
332	CHECK ENDORSE
333	CHECK TENDER
334	CHECK TRACK #
335	CLEAR (ESC)
336	CLERK #
337	CURRENCY CONV.1
338	CURRENCY CONV.2

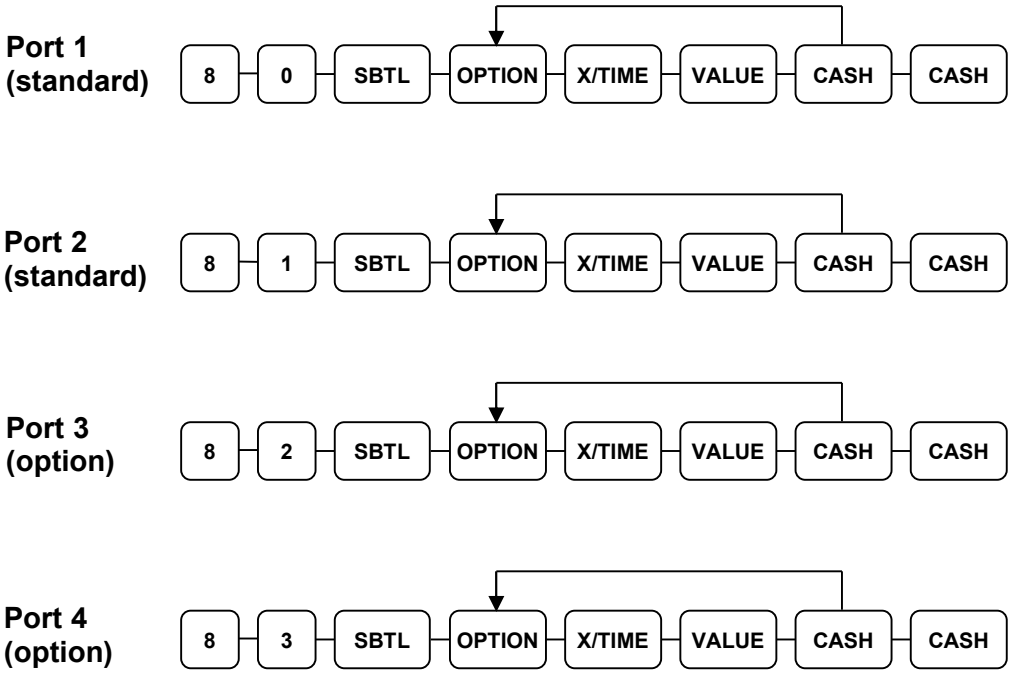
Code	Function
339	CURRENCY CONV.3
340	CURRENCY CONV.4
341	DRIVE THRU
342	EAT-IN
343	ERROR CORRECT
344	F/S SHIFT
345	F/S SUB
346	F/S TEND
347	*NOT USED*
348	*NOT USED*
349	GUEST #
350	PLU (CODE ENTRY)
351	PRICE LEVEL 1
352	PRICE LEVEL 2
353	*NOT USED*
354	*NOT USED*
355	*NOT USED*
356	MACRO 1
357	MACRO 2
358	MACRO 3
359	MACRO 4
360	MACRO 5
361	MACRO 6
362	MACRO 7
363	MACRO 8
364	MACRO 9
365	MACRO 10
366	MDSE RETURN
367	MODIFIER 1
368	MODIFIER 2
369	MODIFIER 3
370	MODIFIER 4
371	MODIFIER 5
372	P/BAL
373	*NOT USED*
374	*NOT USED*
375	PAID OUT 1
376	PAID OUT 2
377	PAID OUT 3
378	PAPER FEED

Code	Function
379	*NOT USED*
380	PRINT CHECK
381	PROMO
382	RECD ON ACCT 1
383	RECD ON ACCT 2
384	RECD ON ACCT 3
385	SBTL (Subtotal)
386	SCALE
387	SERVICE
388	TABLE #
389	TARE
390	TAKE OUT
391	TAX EXEMPT
392	TAX SHIFT 1
393	TAX SHIFT 2
394	TAX SHIFT 3
395	TAX SHIFT 4
396	*NOT USED*
397	TIP
398	VOID ITEM
399	WASTE
400	*NOT USED*
401	VALIDATION
402 - 441	*NOT USED*
442	FINALIZE
443	PAYMENT
444	PAY TENDER
445	PRICE INQ
446	RECEIPT ON/OFF
447	INACTIVE
448	NON ADD #
449	JOURNAL FEED (2- Printer Models)
450	PRICE CHANGE (v1.053 or later)
451	DATATRAN TIP (v1.072 or later)

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

Network Setting

Network Setting programming was added at v02.000 and is used only for connecting to a Datacap DC Direct *(added at v2.000)* or to a Dejavoo *(added at v2.012)* integrated payment devices.

Dejavoo is currently in development, not used at this time.

The DC Direct and Dejavoo devices require an Ethernet connection to the ECR. The new ER-900 series registers with the "E" designation have the addition of a LAN port for interfacing with these integrated payment devices. It is recommended that dealers use the new ER-900E series registers, with the "E" designation, for DC Direct and Dejavoo installations rather than attempting to replace the parts in older ECR's.

CAUTION! The firmware versions v2.xxx cannot be used in ER-900 Series ECR's manufactured prior to March 2013. These older registers must continue to use the firmware versions 1.xxx and cannot be used with DC Direct or Dejavoo.

Important! An SD Card is required to be installed on the ECR at all times when you are processing credit card transactions using EMV Integrated Credit, DC Direct or Dejavoo with the ECR.

If you are using DC Direct or Dejavoo integrated payment you must configure the network settings on the ECR. The ECR and the integrated payment device should all be set on the same IP scheme. The first 3 octets of the IP address must be the same on the ECR and on the integrated payment device, only the last octet will be unique.

ECR IP Configuration

Either the Dejavoo or the DC Direct must be enabled in System Option programming before you can enter the ECR IP Configuration. Enable only the specific device you are using; do not enable both devices at the same time.

1. Move the mode switch to the **S** position to display the **Service Mode** menu.
    a. Enter the **ECR IP Configuration**: **ECR IP**, **Subnet Mask**, and **Gateway**.

    ECR IP: 85 SBTL

    ECR IP Example: **85 SBTL + 192 CASH + 168 CASH + 1 CASH + 11 CASH**

    ECR Subnet: 86 SBTL

    ECR Subnet Example: **86 SBTL + 255 CASH + 255 CASH + 255 CASH + 0 CASH**

    ECR Gateway: 87 SBTL

    ECR Gateway Example: **87 SBTL + 192 CASH + 168 CASH + 1 CASH + 1 CASH**

DC Direct Configuration

DC Direct *(added at v2.000)* must be enabled in System Option programming, option #44, before you can enter the DC Direct EFT IP, Merchant ID, Gift Merchant ID, and the TIP Suggestions. DC Direct requires a connection to the ECR on the ethernet port. Refer to the DC Direct integrated payment supplement for complete setup details.

1. Move the mode switch to the **S** position to display the **Service Mode** menu.
    a. Enter the **EFT IP**, **EFT Merchant ID**, **EFT Gift Merchant ID**, and **EFT TIP Suggestions**.

DC DIRECT IP: 95 SBTL

EFT IP Example: **95 SBTL + 192 CASH + 168 CASH + 1 CASH + 6 CASH**

MERCHANT ID: 96 SBTL

(For Raised Keyboard model ECRs you must use the 3-digit character code entry method.)
Type in the **3-Digit codes** for the **Merchant ID;** Press **CASH** to finalize.

GIFT MERCHANT ID: 97 SBTL

(For Raised Keyboard model ECRs you must use the 3-digit character code entry method.)
Type in the **3-Digit codes** for the **Gift Merchant ID**; Press **CASH** to finalize.

TIP SUGGESTIONS: 98 SBTL

Enter a value and press **CASH** for each **% Prompt** value. You must enter all 4 percentages.
EFT TIP Suggestions Example: **98 SBTL + 10 CASH + 15 CASH + 20 CASH + 25 CASH**

Dejavoo Configuration

Dejavoo is currently in development, it is not used at this time.

Dejavoo *(added at v2.0.12)* must be enabled in System Option programming, option #46, before you can enter the Dejavoo EFT IP, Register ID, TPN and the Auth Key. Dejavoo requires a connection to the ECR on the ethernet port. Refer to the Dejavoo integrated payment supplement for complete setup details.

1. Move the mode switch to the **S** position to display the **Service Mode** menu.
    a. Enter the **EFT IP**, **Register ID**, **TPN**, and the **Auth Key**.
    For example, to enter the **EFT IP** of **192.168.1.6** follow the procedure below.

DEJAVOO IP: 195 SBTL

EFT IP Example: **195 SBTL + 192 CASH + 168 CASH + 1 CASH + 6 CASH**

REGISTER ID: 196 SBTL

(For Raised Keyboard model ECRs you must use the 3-digit character code entry method.)
Type in the **3-Digit codes** for the **Register ID**; Press **CASH** to finalize.

TPN: 197 SBTL

(For Raised Keyboard model ECRs you must use the 3-digit character code entry method.)
Type in the **3-Digit codes** for the **TPN**; Press **CASH** to finalize.

AUTH KEY: 198 SBTL

(For Raised Keyboard model ECRs you must use the 3-digit character code entry method.)
Type in the **3-Digit codes** for the **Auth Key**; Press **CASH** to finalize.

EFT Settings Scan

When the Network Setting programming for the DC Direct device or the Dejavoo device is complete, you can print a scan of the settings.

1. Move the mode switch to the **S** position to display the **Service Mode** menu.
   Enter ***200 SBTL*** to print the ***EFT Settings Scan***.

Dejavoo Settings Receipt

```
DATE   03/30/2026 MON   TIME   13:16

          DEJAVOO SETTINGS

IP:                          10.0.1.3
REGISTER ID:                 8242802
TPN:                    264826676551
AUTH KEY:                       DEFGHA

CLERK 03              000034    0000
```

DC Direct Settings Receipt

```
DATE   03/30/2026 MON   TIME   09:33

          DC DIRECT SETTINGS

IP:                   192.168.10.191
MERCHANT ID:      CASHRSTPA24000GP
GIFT ID:          CASHRSTPA24000GQ

CLERK 01              000143    00000
```

SD Card Utilities

The SD Card utilities allow dealers and merchants to us an SD Card *(2GB or less)* to Backup and/or Restore Program files, Save Reports, Load/Save Receipt image files, or perform Flash ROM firmware updates.

(Flash ROM updates can also be performed through a serial connection to a PC.)

Warning! The firmware versions v2.xxx cannot be used in ER-900 Series ECR's manufactured prior to March 2013. These older registers must continue to use the firmware versions 1.xxx.

When backing up and restoring program data, an 8-character store name must be programmed in system option #30. The program data is saved to the SD card in a separate folder named with the 8-character store name as programmed in system option #30.

Important! An SD Card is required to be installed on the ECR at all times when you are processing credit card transactions using EMV Integrated Credit, DC Direct, or Dejavoo with the ECR.

NOTE: The SD card port is located inside the printer compartment; on the ER-920 the SD port is located to the right of the printer mechanism; on the ER-915E\940\945 the SD port is located to the rear of the receipt printer. Remove the security screw to access the port; See page 18 for details.

The SD Card must be 2GB or less and formatted for FAT32 before using with the ECR. The ER-900E Series ECR's can support SD cards up to 2GB according to specifications.

Caution: A 4GB SD card worked in some cases when tested, however we cannot 100% recommend using a 4GB SD. Some report 4GB SD cards work well, some report a 4GB SD does not work.

Read Carefully: Store Name Notes

Store Name **–** You must program a Store Name in "System Option Programming", option #30; see page 168 for details. This is used to identify the program and report data on the SD card.

The Store Name field in system options is **8-characters** in length. If the store name is set to less than 8-characters, the register will fill in 0's 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 match the store name on the SD card. For this reason it is best to use an ***8-character store name*** in system option #30.

If you are using the SD Card to back up the ECR program data to use the program or report data with the PC Utility, you must pay close attention to the store name.

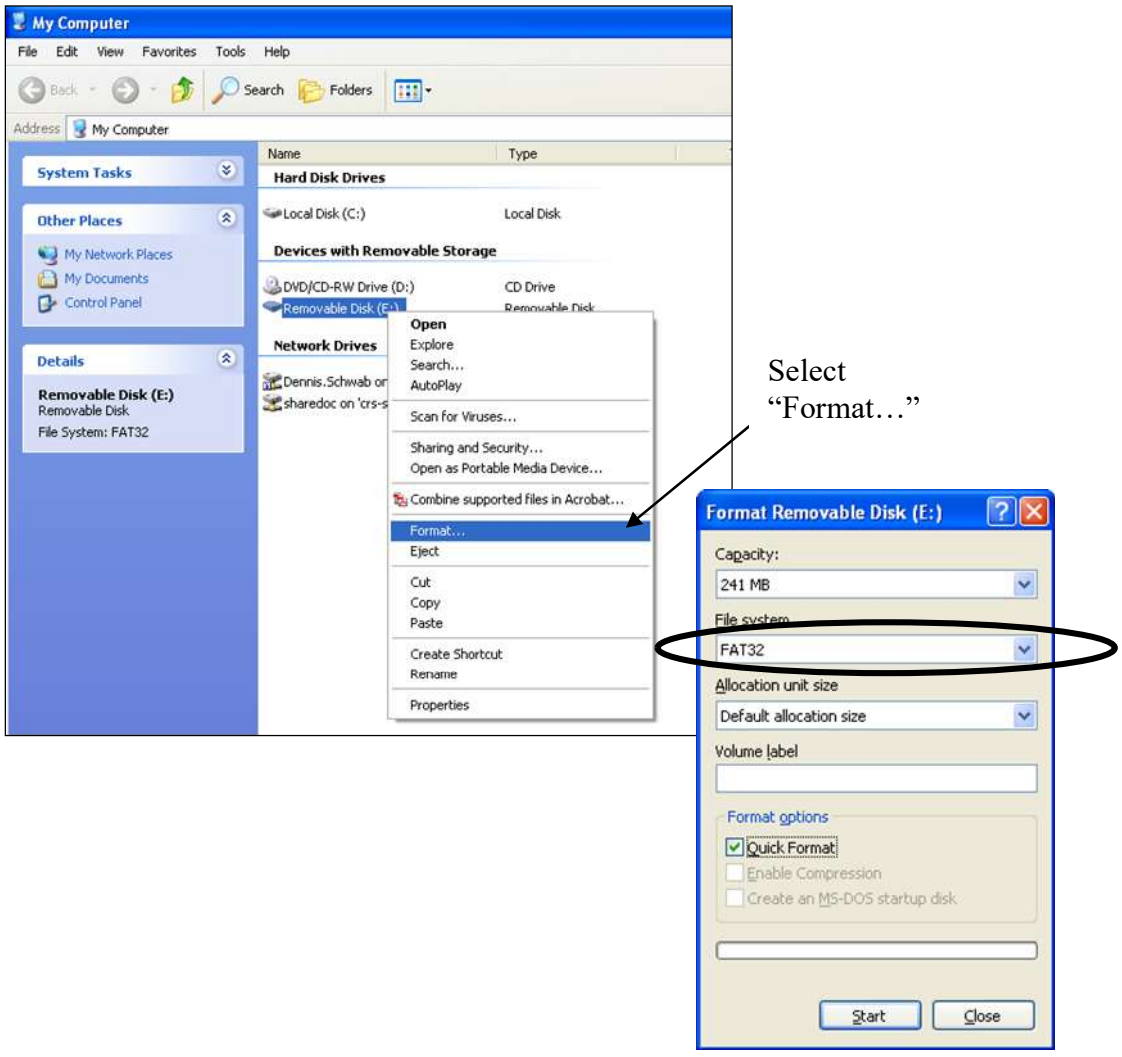
- Enter all 8 characters for the Store Name on the ECR.
- Do not use characters such as hyphens "–" or spaces in the Store Name that cannot be used in naming the store file folder on your PC Utility. If you use such a character in your store name, you will not be able to read the backup files on your PC Utility.

SD Card Formatting

The SD card must be 2 GB or less and formatted as FAT32 before it can be used to perform any of the SD Card Utility operations described in this manual.

⚠ **CAUTION:** Formatting the SD card will clear all data currently saved on the SD card and prepare it for use with the ECR.

1. Start Windows Explorer.
2. Select the SD card drive *(Removable Disk (E:) in the example)*.
3. **Right click** on the SD Card dive and select **Format**.
   (Win XP screen shown; slightly different procedures are used with different operating systems.)



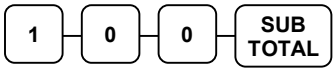
4. From the Format dialog you must select the **File System: FAT32**.
5. From the format options check the **Quick Format** selection.
6. Click **Start** to format the SD card.

100 SBTL – SD Card Program Backup

CAUTION! Before backing up or restoring program data, an **8-character store name** must be programmed into **System Option #30**. You can refer to the System Option programming on page 167 for details.

Also Note: To restore your program backup, the memory allocation settings must be programmed to the same or higher values as the saved program. Be sure to print out the memory allocation when backing up the program to SD so that it can be re-entered before restoring the program. **S-Mode: 60 SBTL CASH**

1. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
2. To back up the program to an SD, enter **1 0 0**, press the **SUBTOTAL** key.



101 SBTL – SD Card Saving Reports

You can choose to save the current **X1 report** data from the ER-900E series ECR to an SD memory card. Reports can be saved in **.rep** file format *(report format)* for viewing with the 900 PC Utility or **.csv** file format *(spreadsheet format)* that can be opened in Microsoft Excel™.

- Reports cannot be restored back to the ECR from the SD Card or from the PC.

The ER-900E will write the program files to different folders depending on whether CSV or REP file format is selected. This feature is available beginning at version 1.018.

- **SD:\ER900\CSVBACK\STORENAME\DATE\TIME**

  To save the current **X1** report data in **.csv** format, turn the Mode Switch to the **"X"** position.

The CSVBACK folder is date stamped in **YYYYMMDD** format. (For example, 20111116 is November 16, 2011.)

The CSVBACK folder is time stamped in military time **1326** format. (For example, 1326 is 1:26 PM.)

Each individual report file backed also has the time the report was backed up.

For example, "**CLK1326**" represents a Clerk report taken at 1:26 PM (in a 24-hour time format.)

In this manner, multiple reports backed up at different times on the same day will collect in the same "date" folder.

- **SD:\ER900\REPBACK\STORENAME\DATE**

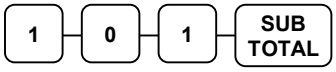
  To save the current **X1** report data in **.rep** format, turn the Mode Switch to the **"S"** position.

The REPBACK folder is date stamped in **YYYYMMDD** format. (For example, 20111116 is November 16, 2011.)

There is no time stamp for the REPBACK file.

The Report SD Backup can also be performed from the X-Mode, 101 SBTL, see page 102 for details.

1. To save the current **X1** report data in **.csv** format, turn the Mode Switch to the **"X"** position.
   To save the current **X1** report data in **.rep** format, turn the Mode Switch to the **"S"** position.
2. Enter **1 0 1**, press the **SUBTOTAL** key to **backup X1 Reports to SD**.



3. The register will print a confirmation of the successful report upload with the name of the report and "UPLOAD" for each report. If the save is unsuccessful, the register will print an error message..

Sample 101 SBTL Receipts

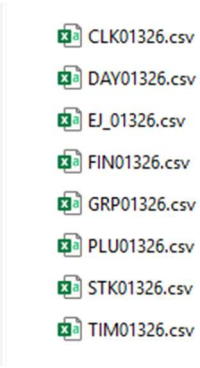
Sample X-Mode 101 SBTL Successful Receipt

```
DATE  06/10/2022 FRI  TIME 13:29

********************************
      REPORT(X1) ER900->SD
********************************
FINANCIAL UPLOAD
TIME REPORT UPLOAD
PLU REPORT UPLOAD
CLERK REPORT UPLOAD
GROUP REPORT UPLOAD
DAY REPORT UPLOAD
STOCK REPORT UPLOAD
FINANCIAL UPLOAD
CLERK 1           000030   0011
```

Sample X-Mode 101 SBTL Unsuccessful Receipt

```
DATE  06/10/2022 FRI  TIME 13:31

********************************
      REPORT(X1) ER900->SD
********************************
SD TEST : initial error!
CLERK 1           000031   0011
```

SD:\ER900\CSVBACK\ SAM4S900\20250611\1326



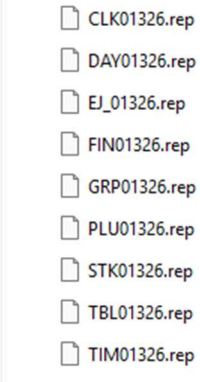
Sample S-Mode 101 SBTL Successful Receipt

```
DATE  06/10/2022 FRI  TIME 18:39

********************************
Store Name : SAM4S900
********************************
      REPORT(X1) ER900->SD
********************************
FINANCIAL UPLOAD
TIME REPORT UPLOAD
PLU REPORT UPLOAD
CLERK REPORT UPLOAD
GROUP REPORT UPLOAD
DAY REPORT UPLOAD
STOCK REPORT UPLOAD
EJ REPORT UPLOAD
TABLE REPORT UPLOAD
CLERK 1           000112   0011
```

Sample S-Mode 101 SBTL Unsuccessful Receipt

```
DATE  06/10/2022 FRI  TIME 18:31

********************************
Store Name : SAM4S900
********************************
      REPORT(X1) ER900->SD
********************************
SD TEST : initial error!
CLERK 1           000113   0011
```

SD:\ER900\REPBACK\ SAM4S900\20250611



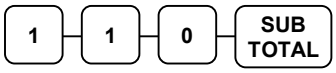
110 SBTL – SD Card Restore All Program

Programs saved to an SD Card can be restored to the same ECR or to a different ECR. Before restoring the program from an SD card to an ECR there are a few settings you will need to make.

- **The firmware version on the ECR the program is being restored to should be the same as the firmware version of the ECR the program was backed up form.** If they are different versions you may not be able to restore all program files. Refer to the Version Notes document for program areas not to restore.
- **Memory allocation cannot be restored from the backup. You must set the allocation settings at the ECR to the same or higher values than the allocation settings from the saved program on the SD Card.**
- **The same 8-character Store Name must be programmed in System Option #30 on the ECR.**

Restore All Program Areas From SD

1. Enter the **8-character Store Name** into **System Option #30** for the store folder on your SD Card that you wish to restore.
2. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
3. To load the entire program to the register from an SD card, enter **1 1 0**, press the **SUBTOTAL** key.



SD Card Restore Individual Program Area

Beginning at software version 1.019, you can restore Individual program areas separately.

1. Enter the **8-character Store Name** into **System Option #30** for the store folder on your SD Card that you wish to restore.
2. With the Mode Switch in the **"S"** position *(Service Mode)*.
3. Enter the **3-DIGIT CODE** from the Program Area Code Table below, press the **SUBTOTAL** key.

Program Area Code Table

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	FINANCIAL Report Logo	**150**	CLERK Report Logo
151	STOCK only	**152**	MACRO only
153	MISC only	**154**	MNM only

NOTE: MISC includes the keyboard layout.

Load/Save Receipt Images

There are 20 Preamble images and 20 Postamble images predefined in the ER-900E series ECRs. If desired, you can load a customized preamble and postamble image for printing on the receipt or soft guest check. Before loading the images they must be converted by the PC Utility to .img format. After conversion, they can be loaded directly by connecting a PC to the ER-900E or by copying the images to a SD card and loading (or saving the image) using the SD utility program described here.

Note: After loading the images to the ECR, you must set Print Options #21 and #22 to activate image printing, and set options #38, #39, #40, #41 to 0 *(zero)* to print the custom image.

Preparing a Graphic Logo Bitmap for an ER-900E Series

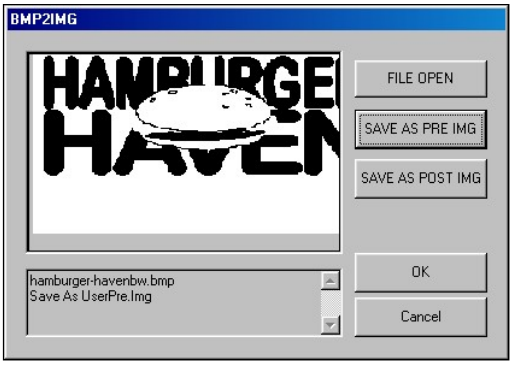
The image must be a black/white monochrome bitmap, 384 x 192 pixel, and 10 Kbytes or less in size.
If your image does not meet this specification, you will need to use a graphic program to resize it, convert it to a black/white image and save it as a bitmap (.bmp). The MS Paint graphic program provided 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-900E 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**.
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.

Use PC Utility to Convert Image

1. Install the ER-900E PC Utility on your PC.
2. At your PC, start the ER-900E PC Utility. (Select **Start**, **Programs**, **SHC PC UTILITY**, **ER-900E PC UTILITY**.) The Store Setting dialog box displays.
3. If you are starting the ER-900E PC Utility for the first time, you must define a store name. If a store is already defined, you can select the store from the drop down list. After defining or selecting the store click Close. The PC Utility program starts.
4. Move the .bmp logos you wish to use into the store directory (i.e. C:\ER-900EPC\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. With the image 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 load, the message "File Size Error" displays.

Copy Images to SD Card

The PC Utility will create two image files:

- USERPRE.IMG
- USERPOST.IMG

They will be located in your PC at:

C:\ER-900EPC\Store Name

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

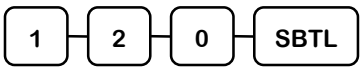
SD\\ER900\PGMBACK\Store Name

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

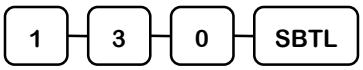
You must use the same 8-character store name in the ER-900E Series ECR at System Option #30.

Load Images by SD Card

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



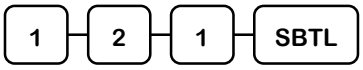
4. To load the **Postamble Image** to the register from the SD card, enter **1 3 0**; press the **SUBTOTAL** key.



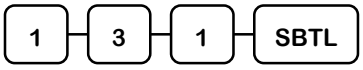
Note: After loading the images to the ECR, you must set Print Options #21 and #22 to activate image printing, and set options #38, #39, #40, #41 to 0 *(zero)* to print the custom image.

Save Images from ER-900E to SD Card

1. Insert the SD card in the register's SD port. Note: The SD port is located in the printer compartment of the ER-900E. Remove the security screw to access the port.
2. Turn the Mode Switch to the **"S"** position *(Service Mode)*.
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-900E 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-900E 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 134 for this procedure.)
2. Create a folder named **update** in the root of the SD card.
3. Copy the **ER900.bin** file into the update folder: **SD:/update/ER900.bin**
4. Insert the SD card into the register and proceed to the **Boot Area Update**.
   (The SD port is located inside the printer compartment. Remove the security screw and open the flap securing the SD port. 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 Mode Switch to the **“S”** position *(Service Mode)*.
   (The unmarked Six O’clock position clockwise from **“P”**.)
2. Power **OFF** the ER-900E.
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 Area Update**.

Application Area Update

7. Continue with the Mode Switch in the **“S”** position *(Service Mode)*.
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; Refer to “Clearing Memory” on page 30.
    The ECR is now ready to program or to load a previously saved end-user program.

Flash ROM Update by PC

Update Files

Warning! The Flash ROM code size was increased in version 2.000 and later for DC Direct, you cannot load v02.000 and later firmware into the early ER-900's that were manufactured before March 2012. Use v1.xxx for these ECR's.

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

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

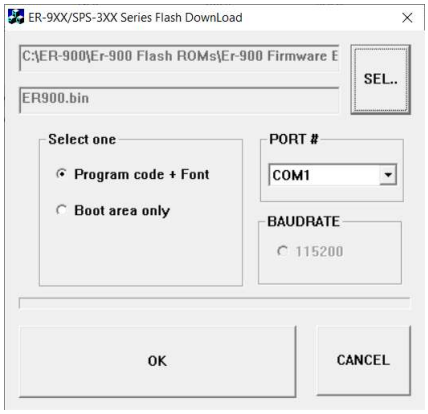
PC Connection Cable

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

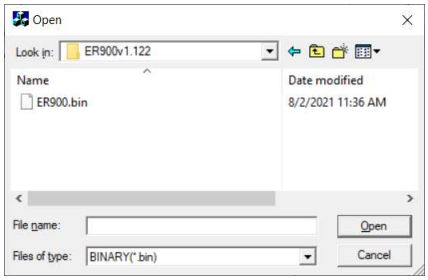
- CRS Part # 522120 (Register DB-9MF COM 1 to PC DB-9F)

Update Boot Area

1. Connect the Serial Cable from **COM #1** on the ECR to a serial port on your PC.
2. At the register, turn the Mode Switch to the **"S"** position *(Service Mode)*.
   (The unmarked Six O'clock position clockwise from **"P"**.)
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:

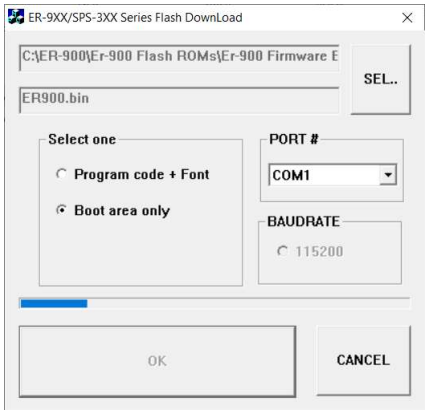


7. Select the appropriate **PORT #** you are connecting to on your PC.
8. Click **SEL. . .**
   a. browse to the folder where the update files are located and select **ER900.bin**.



   b. press **Open**

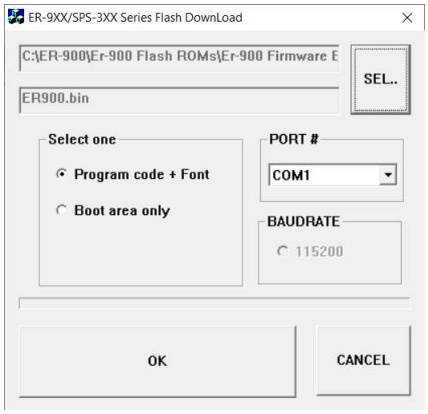
9. Select **BOOT AREA ONLY** in the **Select One** option button choices.



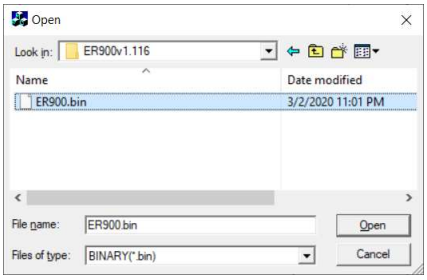
10. Press **THE OK** Button. The download takes about 30 seconds; the scroll bar will track the progress of the download. At the ECR, the display will flash slowly while the update is taking place.
11. At the PC, the message **Completed** displays. Click **OK** and the Download program will close. At the ECR, the display will change to a green color indicating the boot portion of the update is complete.
12. Turn the power switch to the **OFF**; proceed directly to the next step: ***Update Program Area***.

Update Program Area

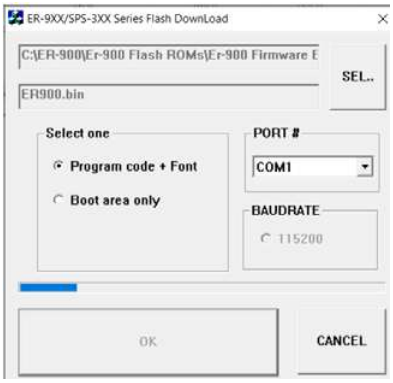
13. With the Serial Cable connected from **COM#1** on the ECR to a serial port on your PC.
14. At the register, turn the Mode Switch to the **"S"** position *(Service Mode)*.
    (The unmarked Six O'clock position clockwise from **"P"**.)
15. Turn the ECR power switch to the **OFF** position.
16. **Press and hold** the **CASH** and **CLERK** keys.
    (Use the default locations for the keys, the upper-right and lower-right keys on the keyboard.)
17. While continuing to hold the **CASH** and **CLERK** keys, turn the ECR 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.
18. At the PC, execute the program **NEWNET_DOWN.exe**. The Download dialog box displays:



19. Click the **SEL. . .** button
    a. navigate to the folder where the update files are located and select ER900.bin.



    b. Press **Open**
20. Select **PROGRAM CODE + FONT** in the Select One option button choices.
21. Select the appropriate com port connection at your PC at the **PORT#** option buttons.
22. Press **THE OK** Button. The download takes about 3 minutes; the scroll bar will track the progress of the download. The display will flash (Current program is being erased), after a few seconds, the display will continue to flash, but at a slower rate.



23. When the firmware update has finished; The message **COMPLETED** displays.

    a. Click **OK** and the Download program will close.
24. At the ECR, 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.
25. Perform a **MEMORY ALL CLEAR** on the ECR.
    See the “Memory All Clear” procedure on page 30 for details.
    The ECR is now ready to program or to load a previously saved end-user program.

P-Mode Programming

Default Program

When the Memory All Clear is performed on the ER-900E series ECR it is loaded with a default program. Program options are set to 0 (Zero), unless otherwise noted, which means the machine can be operated immediately after a Memory All Clear procedure is performed.

- 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 Mode Switch in the PGM position. Each section details a specific area of register programming.

Descriptor Programming Methods

Descriptors are programmable for PLU's, function keys, groups, clerks and the logo/messages. There are two methods available to program descriptors, the *Descriptor Overlay Method* and the *Descriptor Code Method*. This chapter describes both methods. Refer to each program area for specific steps for programming descriptors for PLU's, Groups, Function Keys, etc.

The default alpha descriptor program method uses the Alpha Code Entry Method. You will need to set System Option #31: Program descriptor with overlay? to YES to use the Overlay Method or to NO to use the Code Entry Method. (Refer to "System Option Programming" on page 167.)

ER-920E & ER-940E models feature a 150-key flat keyboard.

ER-925E, ER-945E and ER-915E models feature a 98-key raised-key keyboard. Use the code entry method for the default keyboard. If you have expanded the keyboard on the ER-925E/ER-945E, the descriptor entry method can be either, by code entry or by keyboard overlay.

ER-915E models feature a 63-key keyboard and must always use the descriptor code entry method. Consult with your dealer to determine the correct method of descriptor entry for your model.

Spanish Characters: Á, **Ã**, **Ñ** are available at firmware version v1.121 and later.

Alpha Descriptor Keyboard Overlay Method

This method can be used for flat keyboard models ER-920/ER-940 and for the ER-925/ER-945 raised keyboard models when the keyboard has been expanded to the full keyboard. System Option #31 PROGRAM DESCRIPTORS WITH OVERLAY must be set to YES. Place a copy of the descriptor overlay over the keyboard, then when the descriptor field is selected on the program screen, you can simply type the descriptor.

ER-920/ER-940 Alpha Keyboard Overlay

ER-920 & ER-940 models feature a 150-key flat keyboard. Locate the Alpha Keyboard overlay included in your register's accessory package. Install the overlay under the protective rubber overlay.

1	11	21	31	41	51	61	71	81	91	FEED	JOURNAL FEED			
Á	Ñ	Ã	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	SBTL
10	20	30	40	50	60	70	80	90	100		0	00	.	CASH

ER-925E/ER-945E Alpha Keyboard Overlay

ER-925, ER-945 models feature a 98-key raised-key keyboard.

Note: There is no alpha overlay option for the default 21-PLU keyboard for the ER-925E/945E Series. You must use the descriptor code entry method for the 21-PLU keyboard configuration.
ER-915E has a 63-key raised-key keyboard and must use the code entry method for descriptor programming, there is no keyboard alpha overlay option for the ER-915E.

Spanish Characters: Á, Ã, Ñ are available at firmware version v1.121 and later.

A	H	O	V	#	)	“	SPACE		FEED	JOURNAL FEED			
B	I	P	W	$	-	,	SPACE		Á	Ñ	Ã		
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	.		

Alpha Descriptor Code Entry Method

All the ER-900E series ECR's can use the alpha descriptor code entry method for the descriptor programming.

To enter descriptors using the three-digit alpha character codes you must set system option #31: Program descriptors with overlay = N. (Refer to "System Option Programming" on page 167.)

Descriptor Code Chart

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

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				
CHAR	Á	á	Ñ	ñ	Ã	â				
CODE	125	126	127	128	129	130				

Spanish Characters: Á, à, Ñ, ñ, Ã, ã are available at firmware version v1.121 and later.

Tax Programming

The ER-900E allows three separate calculation options for each of the four possible taxes.

- **Add-On -** most sales taxes can be programmed by entering an *add-on* tax percentage rate.
- **Tax Table -** if a tax entered as an add-on tax percentage does not follow exactly the tax chart that apply in your area, *tax table* programming will match tax collection exactly to the break points of your tax table. (Tax table programming allows up to 75 breakpoints.)
- **VAT -** if tax is included in the cost of the item, you can use value added tax (*VAT*) to calculate the tax share of each sale.
- **GST -** Canadian ***G***oods and ***S***ervices ***T***ax (*GST*) can be set using tax rate 4.

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), Refer to “Straight Percentage Tax Rate Programming" to enter the percentage rate.
- If you are entering a tax table, Refer to “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. Refer to “Straight Percentage Tax Rate Programming" to enter the GST status and percentage rate.

Important! 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.

Add-On Tax Programming

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

Important! The Tax programming procedure was updated beginning at software version 1.019. Beginning at version v1.019 it is no longer necessary to have multiple tax shift keys on the keyboard when programming multiple taxes rates. All tax programming is done utilizing the TAX SHIFT 1 key. Please use the appropriate tax programming instructions for the firmware version installed on your register.

Add-On Tax Programming (v1.019 or later)

1. Turn the Mode Switch 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:

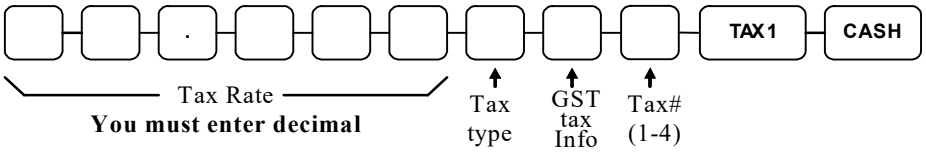
If the tax is a straight percentage Added On to the sale (normal add on tax; the tax is added on to the sale), enter:	**0**
If the tax is a percentage Value Added Tax (VAT; the tax is included as part of each items sale price), enter:	**2**

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		**0**

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

Tax Rate Programming Flowchart



Add-On Tax Programming (Up to v1.017)

1. Turn the Mode Switch 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:

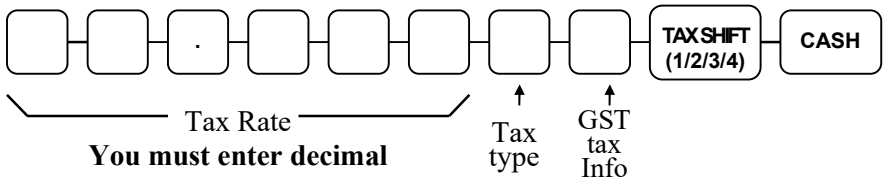
If the tax is a straight percentage Added On to the sale (normal add on tax; the tax is added on to the sale), enter:	**0**
If the tax is a percentage Value Added Tax (VAT; the tax is included as part of each items sale price), enter:	**2**

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 only) is taxable by rate 1?	Yes = 1 No = 0		
GST (tax 4 only) is taxable by rate 2?	Yes = 2 No = 0		
GST (tax 4 only) is taxable by rate 3?	Yes = 4 No = 0		**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



GST Programming

Tax 4 can be programmed to accommodate the Canadian Goods and Services tax (GST). If GST is to be taxable, you have the option for taxing the GST by other applicable tax rates (tax on tax).

(GST) Tax Programming (v1.019 or later)

1. Turn the Mode Switch 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:

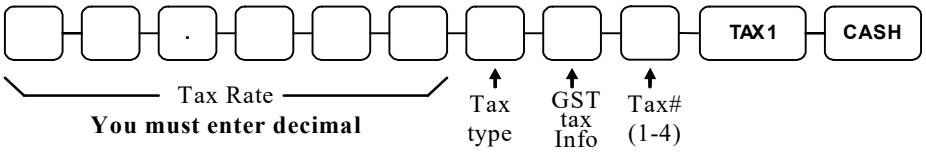
If the tax is a straight percentage Added On to the sale (normal add on tax; the tax is added on to the sale), enter:	**0**
If the tax is a percentage Value Added Tax (VAT; the tax is included as part of each items sale price), enter:	**2**

4. If tax 4 is a Canadian GST, enter the sum of the options below:

OPTION	VALUE	=	SUM
GST (tax 4 only) is taxable by rate 1?	Yes = 1 No = 0		
GST (tax 4 only) is taxable by rate 2?	Yes = 2 No = 0		
GST (tax 4 only) is taxable by rate 3?	Yes = 4 No = 0		**1, 2, 3, 4, 5, 6, 7**

5. Enter **4** (to program **TAX4**).
6. Press the **TAX SHIFT 1** key.
7. 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 tax 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! The Tax programming procedure was updated beginning at software version 1.019. Beginning at version v1.019 it is no longer necessary to have multiple tax shift keys on the keyboard when programming multiple taxes rates. All tax programming is done utilizing the TAX SHIFT 1 key. Please use the appropriate tax programming instructions for the firmware version installed on your register.

Determining Break Point Entries

1. Examine the printed tax table for the tax you are programming.
2. Refer to the **"Tax Table Programming Examples"** on page 153 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."

Sample - 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	

Tax Table Programming Examples

This tax method will match tax collection exactly to the break points of your tax table.

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

Important! The Tax programming procedure was updated beginning at software version v1.019. Beginning at version v1.019 it is no longer necessary to have multiple tax shift keys on the keyboard when programming multiple taxes rates. All tax programming is done utilizing the TAX SHIFT 1 key. Please use the appropriate tax programming instructions for the firmware version installed on your register.

Tax Table Programming (Versions v1.019 and later)

1. Turn the Mode Switch 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 SHIFT 1** key.
4. Enter the maximum amount that is not taxed and press the **TAX SHIFT 1** key.
5. Enter the first tax amount charged and press the **TAX SHIFT 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 SHIFT 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 SHIFT 1** key after each entry.
9. Press the **CASH** key to end the tax table program.

For Example: To enter the sample 6% tax table into TAX 1 for firmware V1.019 and later:

1. Turn the Mode Switch to the **PGM** position.
2. Enter **1 0 1** and press the **TAX SHIFT 1** key.
3. Enter **1 0** (the maximum amount that is not taxed), press the **TAX SHIFT 1** key.
4. Enter **1** (the first tax amount charged), press the **TAX SHIFT 1** key.
5. Enter **2 1** (non-repeat break point), press the **TAX SHIFT 1** key.
6. Enter **3 8** (non-repeat break point), press the **TAX SHIFT 1** key.
7. Enter **5 6** (non-repeat break point), press the **TAX SHIFT 1** key.
8. Enter **7 3** (non-repeat break point), press the **TAX SHIFT 1** key.
9. Enter **9 1** (non-repeat break point), press the **X/TIME** key.
10. Enter **1 0 8** (repeat break point), press the **TAX SHIFT 1** key.
11. Enter **1 2 4** (repeat break point), press the **TAX SHIFT 1** key.
12. Enter **1 4 1** (repeat break point), press the **TAX SHIFT 1** key.
13. Press the **CASH** key to complete the tax program.

Programming a Tax Table (Versions v1.017 and earlier)

1. Turn the Mode Switch to the **PGM** position.
2. Enter **10**; press the **TAX SHIFT** key for the tax you are programming.
   i.e. TAX SHIFT 1, TAX SHIFT 2, TAX SHIFT 3 or TAX SHIFT 4.
3. Enter the maximum amount that is not taxed and press the appropriate **TAX SHIFT** key.
4. Enter the first tax amount charged and press the appropriate **TAX SHIFT** 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 SHIFT** 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 SHIFT** key.
8. Press the **CASH** key to end the tax table program.

For Example: To enter the sample 6% tax table into TAX 2 for firmware v1.017 and earlier:

1. Turn the Mode Switch to the **PGM** position.
2. Enter **1 0** and press the **TAX SHIFT 2** key.
3. Enter **1 0** (the maximum amount that is not taxed), press the **TAX SHIFT 2** key.
4. Enter **1** (the first tax amount charged), press the **TAX SHIFT 2** key.
5. Enter **2 1** (non-repeat break point), press the **TAX SHIFT 2** key.
6. Enter **3 8** (non-repeat break point), press the **TAX SHIFT 2** key.
7. Enter **5 6** (non-repeat break point), press the **TAX SHIFT 2** key.
8. Enter **7 3** (non-repeat break point), press the **TAX SHIFT 2** key.
9. Enter **9 1** (non-repeat break point), press the **X/TIME** key.
10. Enter **1 0 8** (repeat break point), press the **TAX SHIFT 2** key.
11. Enter **1 2 4** (repeat break point), press the **TAX SHIFT 2** key.
12. Enter **1 4 1** (repeat break point), press the **TAX SHIFT 2** key.
13. Press the **CASH** key to complete the tax program.

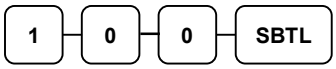
PLU Programming

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:

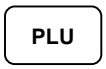
- ***"Program 100 – PLU Status Programming"*** See page 156 – Determines whether the PLU is open, preset or inactive. Also selected here are tax, food stamp, scale, negative, single item, hash, gallonage, compulsory number entry, compulsory condiment and print options.
- ***"Program 110 – Auto Tare Programming"*** See page 159 – Allows you to automatically subtract a pre-programmed tare weight when registering a scale PLU.
- ***"Program 150 – PLU Group Assignment"*** See page 160 – Allows you to select up to three groups where each PLUs sales will accumulate.
- ***"Program 200 – PLU Price/HALO Programming"*** See page 161 – 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"*** See page 162 – Allows you to add stock to the PLU sales counters for PLUs you have designated as stock keeping PLUs.
- ***"Program 300 – PLU Descriptor Programming"*** See page 163 – Allows you to set a unique descriptor, up to 18 characters, for each PLU.
- ***"Program 350 – PLU Link Programming"*** See page 164 – 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"*** See page 165 – Allows you to delete a PLU.
- ***"Program 450 - PLU Mix and Match Programming"*** See page 166 – Allows you to designate items eligible for mix and match discounts.

Program 100 – PLU Status Programming

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **1 0 0**, press the **SBTL** 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.

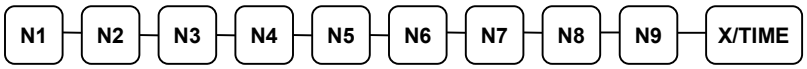


   - If sequential PLUs on the keyboard are to receive the same status, press the **first PLU** key and then press the **last PLU** key.

   - 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** function key. Enter the last number in the range; press the **PLU** function key.

4. Refer to the "PLU Status Chart" to determine the values for **N1** through **N9**. 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.
   (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.)



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		

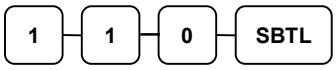
PLU Options – Reference Information

Option	Description
PRESET OVERRIDE	If **Yes**, you can enter a price to override the preset Price/HALO.
PLU IS TAXABLE 1-4	Select **Yes** to apply the apply the appropriate tax if this PLU is taxed.
FOOD STAMP ELIGIBLE	Select **Yes** to accumulate a total of food stamp eligible items in the current sale. The total of food stamp eligible items can be viewed by pressing the F/S SUB key and food stamps can be tendered with the F/S TEND key.
PLU IS A NEGATIVE ITEM	Select **Yes** only when this PLU is a negative value PLU.
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.
COMPULSORY NON-ADD NUMBER	Select **Y** to enforce the entry of a non-add number when registering this PLU.
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.
SCALABLE	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 CONDIMENT	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 PRT PRICE ON CHK	Select **No** if you wish to suppress printing of the item's price on the receipt and\or the guest 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.
DISABLE VOID & RETURN	Select if you wish to prevent the Void and Return operation for this PLU.

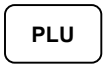
Program 110 – PLU Auto Tare Programming

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

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **1 1 0**, press the **SBTL** 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.

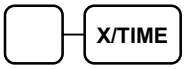


   - If sequential **PLUS** on the keyboard are to receive the same status, press the **First PLU** key and then press the **Last PLU** key.

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

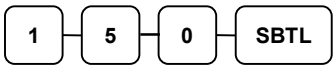
Program 150 – PLU Group Assignment

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.

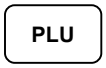
Groups are also used to designate items that are to print on an optional kitchen printer. The first group of the three groups to which a PLU can be assigned determines kitchen printer routing.

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

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **1 5 0**, press the **SBTL** 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 10 or enter **0 4** for group four.

   The 1st Group is used to route items to the kitchen printer where applicable. Be sure to enter the appropriate KP Group to the 1st Group. You must enter a 2-digit value for each of the 3 group assignments. If you only use one group you will need to enter zeros for the 2nd & 3rd Group. For example 04 00 00. Press the **X/TIME** key.

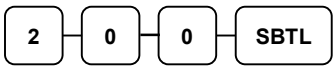
   1st Group 2nd Group 3rd Group

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

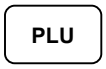
Program 200 – PLU Price/HALO Programming

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 Mode Switch to the **PGM** position.
2. To begin the program, enter **2 0 0**, press the **SBTL** 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
(If allocated)

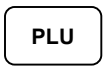
6. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

Program 250 – PLU Stock Amount Programming

With this program, you can add stock to the PLU sales counters for PLUs you have designated as stock PLUs. Refer to "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 Mode Switch to the **PGM** position.
2. To begin the program, enter **2 5 0**, press the **SBTL** 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-925E/945E by typing descriptors using the alpha keyboard overlay or by entering the three-digit alpha character codes. On the ER-915E, descriptors must be programmed using the 3-digit code method. Refer to "Descriptor Code Chart" on page 147.

To enter descriptors by three-digit alpha character codes you must set system option #31 to not use the overlay (Refer to "System Option Programming" on page 167).

Note:

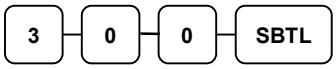
You can program PLU descriptors up to 18 characters, all 18 characters will print on the receipt.

However, only the first 16-Characters will appear on the ECR display.

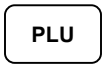
13-Characters – will be printed on a Remote KP Printer

12-Characters – will appear on the E-Pad Kitchen Video System

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **3 0 0**, press the **SBTL** key.

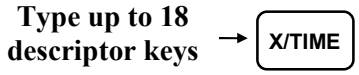


3. Select the **PLU** you wish to program in one of the following ways:
   - Press a **PLU** key on the keyboard or scan the item.

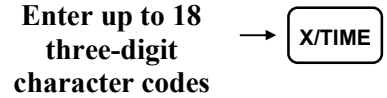


   - Enter the number of the **PLU** (up to 15 digits) and press the **PLU** function key.

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



   - If you are programming descriptors using the **Descriptor Codes**, enter up to 18 three-digit character codes and press the **X/TIME** key. (Refer to "Descriptor Code Chart" on page 147.)

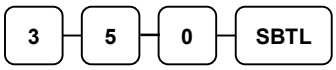


5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

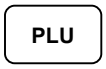
Program 350 – PLU Link Programming

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 Mode Switch to the **PGM** position.
2. To begin the program, enter **3 5 0**, press the **SBTL** key.



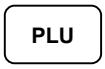
3. Select the **PLU** you wish to program in one of the following ways:
   - Press a **PLU** key on the keyboard or scan the item.



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

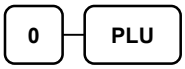
4. Enter the number of the **PLU** you wish the PLU linked to; press the **PLU** Function key; Or press the **PLU** key on the keyboard you wish the PLU linked to.

Or,



(On keyboard)

To Remove PLU Link

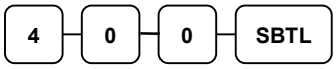


5. To program additional PLUs, repeat from step 3, or press the **CASH** key to finalize the program.

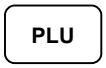
Program 400 – PLU Delete Programming

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 Mode Switch to the **PGM** position.
2. To begin the program, enter **4 0 0**, press the **SBTL** 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.

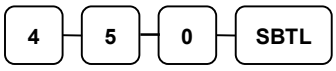
4. Press **X/TIME** key.

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

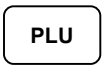
Program 450 – PLU Mix and Match Programming

If a PLU is eligible for a mix and match discount, enter the mix and match table for the PLU here. Refer to the "Mix & Match Discount Programming" chapter on page 227 for more information.

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **4 5 0**, press the **SBTL** 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

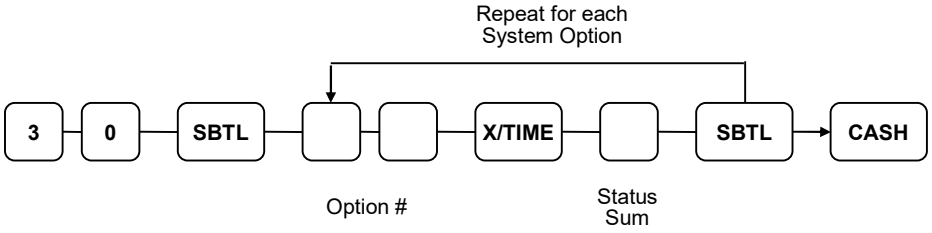
Refer to the "System Option Table" to review the system options. Read each option carefully to determine if you wish to make any changes.

NOTE: Typical selections are set as the 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 Mode Switch to the **PGM** position.
2. Enter **3 0**, press the **SBTL** key.
3. Enter the **Address Number** for the system option and press the **X/TIME** key.
4. Enter the number value representing the status you have selected, Press the **SBTL** key.
   (If there is more than one decision to be made in the option address, add the values representing your choices for each decision and enter the sum.)
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 =** Code Entry =	**0** 1		
3	Clerks are:	Pop-up = **Stay Down =**	1 **0**		
4	Drawer needs to be shut to operate.		**Yes = 0** No = 1		
	Activate Open Drawer Alarm.		Yes = 2 **No = 0**		
5	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**		
	Open Drawer on post tender?		**Yes = 0** No = 2		
	Allow multiple receipts?		Yes = 4 **No = 0**		
7	Cash declaration is required before reports may be taken?		Yes = 1 **No = 0**		
	Allow negative balance sales in the **"X"** Mode position only?		Yes = 2 **No = 0**		
8	Allow zero balance sales in the **"X"** Mode 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**		
	Open drawer 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	Compulsory Eat-in/Take-out/Drive-thru entry 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**		
	Printer Paper sensor is active?		**Yes = 0** No = 2		
	Split pricing is deactivated?		Yes = 4 **No = 0**		
18	Enable direct multiplication?		Yes = 1 **No = 0**		
	Stock\Inventory counter programming:	Adds to current level	2		
		Replace current level	**0**		
19	Global Entry Limit: ***(default = 0)*** is no limit		0-14		
20	Allow direct 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" S**tock 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	Clerk Interrupt enabled?		Yes = 1 **No = 0**		
	VAT Shift affects the whole receipt? *(not used)*		Yes = 2 **No = 0**		
	Disable Amount Confirmation In EFT *(requires v1.107 or later)*		Yes = 4 **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-940/945/915E 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 *(Auto Cutter)*		**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: *(Requires v1.027 or later)* A maximum of 200 lines may be entered per transaction = 0 Entry of more than 200 Lines is allowed; however a buffered receipt is not itemized = 1		**0** 1		
***43**	* PDC New Protocol? *(Requires v01.072 or later; Used with EMV, DC Direct, & Dejavoo.)*		Yes = 1 **No = 0**		
	* Cardholder Name? *(Requires v01.072 or later; Used with EMV, DC Direct.)*		Yes = 2 **No = 0**		
	* "test" Clerk ID? *(Requires v01.072 or later; Used with EMV, DC Direct.)*		Yes = 4 **No = 0**		
44	Not Allow Gift Card Number Manual Entry *(Requires v1.112 or later)*		Yes = 1 **No = 0**		
	Enable DC Direct *(Requires v02.000 or later; Only used with DC Direct)*		Yes = 2 **No = 0**		
	Save Log To SD *(Requires v02.005 or later; Used with Dejavoo & DC Direct)*		Yes = 4 **No = 0**		
***45**	Prompt Suggestive TIP		Yes = 1 **No = 0**		
	Allow EFT Multi-Price		Yes = 2 **No = 0**		
	Show TIP Amounts		Yes = 4 **No = 0**		
***46**	SURCHARGE With Tax *(Requires v02.011 or later; Used with Dejavoo & DC Direct)*		Yes = 1 **No = 0**		
	MULTI PRICE With Tax *(Requires v02.011 or later; Used with Dejavoo & DC Direct)*		Yes = 2 **No = 0**		
	ENABLE DEJAVOO *(Requires v02.0.12 or later; Only used with Dejavoo.)*		Yes = 4 **No = 0**		

System Options - Reference Information

#	System Option	Description
1	Beeper is active?	Select **N**, to disable the internal beeper *(error tone)*.
	% Function does not affect Net Sales	If **Y**, the % function will not affect *(add to)* the Net Sales amount.
2	Clerk sign on method is Direct Entry or Code Entry	**0 = Direct Entry**, enter the numeric clerk code and press the CLERK key. **1 = Code Entry**, press the CLERK key, enter the clerk code and press the CLERK key.
3	Clerk sign on method is:	**0 = Stay-Down** Clerk remains signed on until they sign-off. **1 = Pop-Up** Clerk is signed off when sale is finalized.
4	Drawer needs to be shut to operate. Activate Open Drawer Alarm.	Select **Y** to enforce closed drawer for register operations. Select **Y** if you want the error tone to automatically sound when the drawer stays open longer than the time set in the following field.
5	Number of seconds before the open drawer warning tone sounds.	If you enable the open drawer alarm above, you can set the length of time *(1-99 seconds)* before the alarm sounds *(default = 30)*.
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.
7	Cash declaration is required before reports may be taken?	Select **Y** to enforce a cash declaration function before a report can be generated.
	Allow negative balance sales in the "X" Mode position only?	Select **Y** to control negative balance transactions; the mode switch must be in the **X** position to finalize the transaction.
8	Allow zero balance sales in the "X" Mode position only?	Select **Y** to control zero balance transactions; the mode switch must be in the **X** position to finalize the transaction.
	Reset transaction No. on "Z" report.	Select **Y** to reset the transaction number (often called the receipt counter) to zero after the financial report is reset.
9	Grand total is reset after a "Z" Financial report?	Select **Y** to reset the grand total to zero after the financial report is reset.
	Open drawer when reports are run?	Select **N** to stop the drawer from opening when reports are run.
	Open drawer during training mode?	Select **N** if you do not want the cash drawer to open during training mode operations.
10	Decimal place:	Enter a digit to place the decimal point the selected number of positions from the right. (0,1,2,3) default=2
11	Date Format is:	Select **0** for MMDDYY, select **1** for DDMMYY, or select **2** for YYMMDD date printing format.
12	Percentage and Tax calculations will:	Select the digit that represents the appropriate rounding method for tax and discount calculations: **0** for round up at 0.50 (half of a penny 0.005), **1** for always round up or **2** for always round down.
13	Split price calculations will:	Select the digit that represents the appropriate rounding method for split pricing (i.e. 2 at 3 for $1.00) calculations: **0** for round up at 0.50 (half of a penny 0.005), **1** for always round up or **2** for always round down.
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, except for the HASH total on the financial report.

#	System Option	Description
15	Reset the Financial Report "Z" counter after a Z1 Financial report?	Choose **Y** or **N** to determine whether to reset the Z counter after a Z1 Financial report.
	Reset the Time Report "Z" counter after a Z1 Time report?	Choose **Y** or **N** to determine whether to reset the Z counter after a Z1 Time report.
	Reset the PLU Report "Z" counter after a Z1 PLU report?	Choose **Y** or **N** to determine whether to reset the Z counter after a Z1 PLU report.
16	Reset the Clerk Report "Z" counter after a Z1 Clerk report?	Choose **Y** or **N** to determine whether to reset the Z counter after a Z1 Clerk report.
	Reset the Group Report "Z" counter after a Z1 Group report?	Choose **Y** or **N** to determine whether to reset the Z counter after a Z1 Group 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.
19	Global Entry Limit: 0~14.	Enter a digit to determine the number of numeric digits that can be entered for any register function (default = 0) for no limit.
20	Allow direct multiplication by more than one digit?	If you allow direct multiplication of a preset PLU, you can allow only a single digit multiplication or multiplication by more than one digit.
	Tender Validation amount is:	Validation is allowed if an appropriate optional printer is connected to an RS-232C port. Here you can choose the content of single line validation: Amount tendered or Amount of sale.
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.
	Allow sale when stock reaches "0"?	When **N**, inventory PLU's cannot be sold when stock reaches "0".
	Allow Canadian round on subtotal?	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. Refer to "SUBTOTAL – Function Options" on page 220 to display the rounded subtotal.
22	Allow Canadian round on cash?	
	Allow "Z" Stock Report?	When **Y**, cashier is allowed to run a "Z" Stock Report to clear out all stock totals.
23	Enter Training Mode = 1 Exit Training Mode = 0	Select 1 to put the ECR into training mode. Enter 0 to exit the training mode on the ECR.
24	Enable Electronic Journal?	Select **Y** to enable the electronic journal. The electronic journal captures in the ECR memory what you would print line by line on a journal printer.
	Prompt Operator when Electronic Journal is full?	When EJ is enabled, select **Y** if you wish to display a message to notify the operator when the journal memory is full.
	Stop Operations when Electronic Journal is full?	When EJ is enabled, select **Y** if you wish to stop operations when the journal memory is full.

#	System Option	Description
25	Send only Negative Entries to Electronic Journal?	When EJ is enabled, select **Y** if you wish to save only transactions with negative entries to the EJ.
	Send Reset Report to Electronic Journal?	When EJ is enabled, select **Y** if you wish to send RESET REPORTS (Z-reports) to the EJ.
	Disable Cash Declaration?	Select **Y** to disable the cash declaration operations.
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 1 guest check for each allocated # clerks 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.)
	VAT Shift affects the whole receipt?	Not used –
	Disable Amount Confirmation In EFT	Used in EMV; Select if you wish to skip the amount confirmation on the Pin-Pad. *(v1.107 or later)*
27	Disable Level Keys: Level 1 & 2	Select **Y** to disable Price Level 1 or Price Level 2 operation.
28	Price Level Is:	**0 = Pop-Up After Item:** the modifier applies only to the next item registered. **1 = Pop-Up After Sale:** the same modifier applies to any subsequent items registered in the same transaction. **2 = Stay-Down:** the same modifier applies to any subsequent items registered on all subsequent transaction.
29	Modifier is: 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. This option determines the modifier key operation as:	
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** to program descriptors on flat keyboard models. Select **No** for raised key models.
	Use Journal Take-Up Spool?	Activates the take-up spool on ER-940/945/925 models for the journal printer.
	Use MCR	Enables the use of the optional MCR when connected.
32	MSR Track Use: Track 1 & 2 = 0 Track 3 & 4 = 1	**Select 0** to read tracks 1 & 2 on the integrated card reader. **Select 1** to read tracks 2 & 3 on the integrated card reader.

#	System Option	Description
33	Not Used Not Used *(Auto Cutter)*	There is no Auto Cutter on this ECR.
	Mix & Match is taxable?	If **YES** is selected, the tax is applied to the net sale amount after the M & M is applied, rather than the gross amount.
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.

Embedded Barcode Example:

Barcode Format Number	1	2	3	4	5	6	7	8	9	10	11	12	13
1	D1	D2	I1	I2	I3	I4	I5	S	P1	P2	P3	P4	C
2	D1	D2	I1	I2	I3	S	P1	P2	P3	P4	P5	P6	C
3	D1	D2	I1	I2	I3	I4	I5	I6	P1	P2	P3	P4	C
4	D1	D2	I1	I2	I3	I4	I5	P1	P2	P3	P4	P5	C
5	D1	D2	I1	I2	I3	I4	P1	P2	P3	P4	P5	P6	C
6	D1	D2	I1	I2	I3	P1	P2	P3	P4	P5	P6	P7	C
7	D1	D2	I1	I2	I3	I4	I5	W1	W2	W3	W4	W5	C
Barcode Definition (supports UPC, EAN, JAN, & KAN Codes)													

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

35	Language?	**English = 0**; Spanish = 1; French = 2.
36	Require manager to open/close checks? Enable charge posting functions? Send reports to remote printer?	When **Y**, you must turn the mode switch 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 #.
37	Set to where the integrated credit MSR is Connected to.	Choose: Datatran = 0; PDC = 1; or Register = 2
38	Indicate the port (0-4) where the PIN-Pad is located.	Enter the **port #** where **EFT device** is connected.
39	PIN-Pad Type EFT Draft is:	Required Setting: Always set to **1 = DUKPT** Default = DATATRAN for normal EFT draft *(no TIP line)* Choose Fine Dining to print a Tip Line and allow TIP operations.

#	System Option	Description
40	Disable Not-Found PLU feature?	Select **N** to allow the operator to enter PLU prices and other data when the entered PLU number is not found in the PLU database file.
41	Reserved For Puerto Rico Only	This is not used in the USA.
42	Buffer Memory Use	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.
43	Use PDC new protocol?	***Used with EMV, DC Direct, & Dejavoo.*** Only set to YES when using EMV integrated credit. *(Added at v01.072)*
	Cardholder name?	***Only used with EMV& DC Direct.*** Set to YES to print cardholder name on EMV EFT drafts. *(Added at v01.072)*
	"test" clerk ID?	***Only used with EMV & DC Direct.*** Always set "test clerk ID" to NO. *(Added at v01.072)*
44	Not Allow Gift Card Number Manual Entry	When **Yes**, manually entering the card number on a gift card is not allowed. *(Added at v01.112)*
	Enable DC Direct	***Only used with DC Direct.*** When **Yes**, the DC Direct interface is enabled. Additional programming is required. *(Added at v02.000)*
	Save Log To SD	***Only used with DC Direct.*** Set to Y only for troubleshooting purposes. *(Added at v02.005)*
45	Prompt Suggestive TIP	***Only used with DC Direct. It is not used with Dejavoo.*** When **Yes**, this will prompt at the PIN-Pad for the programmed Suggested Gratuity percentages as set in the **S** position **98 SBTL**. *(Added at v02.000)*
	Allow EFT Multi-Price	***Only used with DC Direct. It is not used with Dejavoo.*** This option is only used with Datacap DC Direct together with the Charge keys & F/S Tend keys Multi-Pricing rate setting. This allows for separate Cash, Credit, Debit and Food Stamp amounts to show on the Pin-Pad. *(Added at v02.000)*
	Show TIP Amounts	***Only used with DC Direct. It is not used with Dejavoo.*** This option is used with System Option: Prompt Suggestive TIP. Set this option to **Y** to show the Gratuity Suggestions TIP percentages and the TIP amounts for each gratuity suggestion on the Pin-Pad. *(Added at v02.000)*
46	SURCHARGE With Tax	***Only used with Dejavoo & DC Direct.*** Select **Y** to include TAX when calculating the SURCHARGE amount.
	MULTI PRICE With Tax	***Only used with Dejavoo & DC Direct.*** Select **Y** to include TAX when calculating the MULTI-PRICE amount.
	Enable Dejavoo?	***Only used with Dejavoo.*** When **Yes**, the Dejavoo interface is enabled. Additional programming is required. *(Added at v02.012)*

Print Option Programming

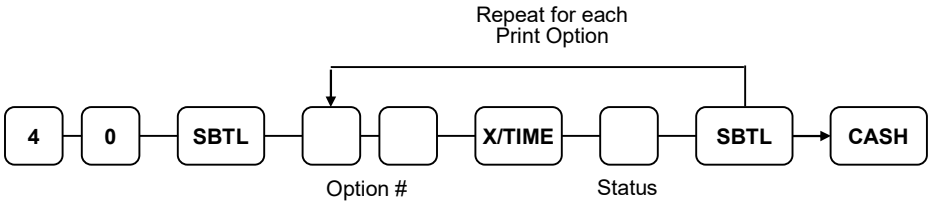
Refer to the "Print Option Table" to review the print options. Read each option carefully to determine if you wish to make any changes.

NOTE: Typical selections are set as the 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 Mode Switch to the **PGM** position.
2. Enter **4 0**, press the **SBTL** key.
3. Enter the **Address Number** for the print option and press the **X/TIME** key.
4. Enter the number value representing the status you have selected, Press the **SBTL** key.
   (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.)
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 totals on clerk report?	Yes = 1 **No = 0**		
	Print the 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 SBTL 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 #1 - #4:	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		
	Choose volume unit when the PLU is gallonage.	**Gallons =** Liters =	**0** 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**		

Address	PRINT OPTION		VALUE	=	SUM
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		
24	Buffer receipt issue when receipt is on? Allows printing 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 = **Gross Sale =**	4 **0**		
26	Adjustable Cut Position ***(Default = 40)***		(0-70)		
27	Send order to the kitchen printer when the SBTL 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? *(Requires v1.049 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 = 4 **No = 0**		

Address	PRINT OPTION		VALUE	=	SUM
34	Print EJ from:	Oldest = **Newest =**	1 **0**		
	Mask credit card number on all EFT drafts? ***(Only used with integrated credit.)***		**Yes = 0** No = 2		
	Automatic line-find is disabled when using an optional slip printer and hard check system. (Requires v1.019 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 (If 2000 is set here, no signature is required on EFT credit transactions under $20.00.) ***(Only used with Non-EMV integrated credit installations.)***		0000		
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; prints 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**		
	Bold Descriptor for Total\Payment\Change *(Available at v1.115 or later)*		Yes = 4 **No = 0**		

Print Options - Reference Information

#	Print Option	Description
1	Print media totals on clerk report	Select **Yes** to print media totals for each clerk, Cash, Check, Charge, Voids, Returns, etc. 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?	The Audaction total shows the total of sales that ended 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.
6	Print date on receipt?	Select **N** only if you wish to delete the printing of the date.
	Print time on receipt?	Select **N** only if you wish to delete the printing of the time.
	Print machine number on receipt?	If you are using more than one cash register, you can identify the specific register where a receipt was printed. Enter **Y** if you wish to print the machine number on the receipt. Machine Number can be defined in Program Mode 1600 SBTL.
7	Print clerk name on receipt?	Select **N** only if you wish to delete the printing of the clerk name on the receipt.
	Print "Z" counter on reports?	Select **N** only if you wish to delete the printing of the reset counter on Z reports.
	Print tax charged for last serviced items.	Select **Y** to Print the tax for current items only when using check tracking and the order is serviced.
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. (Refer to "System Option Programming" on page 167.)
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.
10	Print Gross total on the "X" Financial report?	Select **N** only if you wish to delete the printing of the gross sales total on the financial report reading (X report) or financial report resetting (Z report).
	Print Gross total on the "Z" Financial report?	
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"** for Combined 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.

#	Print Option	Description
12	Print the tax amount on receipt?	Select **N** only if you wish to delete the printing of the tax amount on the receipt.
	Print taxable totals?	Select **Y** if you wish to print the total of merchandise eligible for each tax on the receipt.
	Print the tax rate?	If you are calculating a tax percentage (add-on or VAT), select **Y** if you wish to print the tax rate on each 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.
	Print training mode message on the receipt during training mode operations?	When training mode id used the message "TRAIN MODE" normally prints on each receipt. Select **N** to delete the message.
14 **15** **16** **17**	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 (Refer to "System Option Programming" on page 167).
18	Print the KP order number on the register receipt?	A system wide counter creates an order number for each kitchen requisition. Choose **Y** to print the KP order number on the kitchen printer requisition.
	Print the item's price on the kitchen printer requisition?	You can choose to print the item with or without its' price on the kitchen requisition.
19	Print registrations in void mode on the kitchen printer requisition?	You can choose to print or not print registrations performed in the void mode on kitchen requisitions.
	Print registrations in training mode on the kitchen printer requisition?	You can choose to print or not print registrations performed in training mode on kitchen requisitions.
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.
	Choose volume unit when the PLU is gallonage.	If gallonage is selected in PLU programming, choose the volume unit. **0**: for Gallons or choose **4**: for Liters here.
21	Print preamble message on receipt?	Choose whether to print the PREAMBLE on the receipt.
	Print postamble message on receipt?	Choose whether to print the POSTAMBLE on the receipt.
22	Print preamble message on the guest check?	Choose whether to print the PREAMBLE message on the guest check.
	Print postamble message on the guest check?	Choose whether to print the POSTAMBLE message on the guest check.
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).

#	Print Option	Description
24	Buffer receipt issue when receipt is on?	Allows printing second receipt for the same transaction.
	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.
	Print the PLU number and descriptor on the receipt?	If **Y**, the PLU number will print with the descriptor on receipts. If **N**, only the PLU descriptor will print.
25	Print when polling reports?	Choose **N** only if you wat to suppress register printing when reports are polled.
	Print PLU# on PLU Report?	If **Y**, the PLU number will print with the descriptor on reports. If **N**, only the PLU descriptor will print.
	Grand total is: Net Sale – Gross Sale	Choose **Y** if you wish the grand total to accumulate daily net sales totals. Choose **N** if you wish the grand total to accumulate daily gross sales totals.
26	Adjustable Cut Position	Not used: (Default = 40)
27	Send order to the kitchen printer when the SBTL key is pressed?	Choose **Y** to print orders on the KP when the SUBTOTAL key is pressed. Choose **N** to print orders on the KP when the order is finalized.
	Print Date on Hard Check?	If **Y**, the posting date will print at every posting on the hard check.
28	Print custom pre graphic logo on receipt?	Choose whether to print a custom PRE IMAGE or a custom POST IMAGE on receipts.
	Print custom post graphic logo on receipt?	
29	Print custom pre graphic logo on guest check?	Choose whether to print a custom PRE IMAGE or a custom POST IMAGE on guest checks.
	Print custom post-graphic logo on guest check?	
	Print on Kitchen Printer by Item? (Requires v1.049 or later)	If **Y**, each KP item is printed individually on the kitchen printer.
30	Not Used	***Not Used.***
31	Number of pre-feeding lines on receipt.	0~5 Default = 0
32	Number of post-feeding lines on receipt.	
33	Print in high density?	NA
	Journal is off?	Select Y to not print to the journal printer.
	Journal is small?	If **Y**, the font size on the journal print is smaller than normal.
34	Mask credit card number on all EFT drafts	Always **Yes**
35	Copy of Datatran receipt (0-99)	Only used with integrated credit; Enter the desired number of Datatran receipt copies you wish to print (0-99).
36	No signature required if EFT transaction is under XX.xx	Only used with Non-EMV integrated credit installations. This feature will not work when System Option 43 “PDC New Protocol” = Yes. Enter the desired Non-EMV integrated credit transaction amount *(up to 99.99)* to NOT print a signature line.

#	Print Option	Description
37	Quick journal review prints the last xx (0-99) lines of electronic journal. (R-Mode/10 Subtotal)	(REG-Mode/10 Subtotal) The Quick Journal Review prints the last xx (0-99) number of lines of the electronic journal.
38 thru 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 one of the 20 preloaded stock images on the receipt or guest check: 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" 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"
42	Print Electronic Journal to remote printer connected to port (0-4).	(Default = 0; prints on internal printer.) (Available at v1.026 or later.)
43	Print Checks Paid on Serviced report	Default = **Yes**, 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 the date of the 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.

#	Print Option	Description
47	Print on Journal Printer: Preamble and/or Postamble.	Choose whether to print the PREAMBLE message on the journal printer. Choose whether to print the POSTAMBLE message on the journal printer.
	Bold Descriptor for Total/Payment/Change	*(Added at v1.15 and later.)* Select **"Yes"** to print the receipt lines for Total\Payment\Charge in bold.

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 Non-Add # and the No Sale operations.
- ***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.

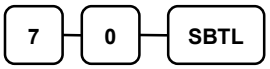
In this chapter you will find:

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

Program 70 – Function Options

Use Program 70 to set status 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 Mode Switch to the **PGM** position.
2. To begin the program, enter **7 0**, press the **SBTL** key.

3. Enter the values for the status 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. Press the function key you wish to program.

   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.

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

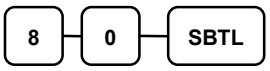
   

Program 80 – Function Key Descriptor

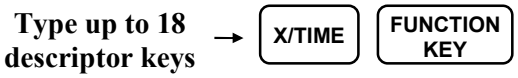
Program descriptors by typing descriptors on the alpha keyboard overlay or by entering three-digit alpha character codes. To enter descriptors by entering the three-digit alpha character codes you must set system option #31 (Refer to "System Option programming" on page 167).

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

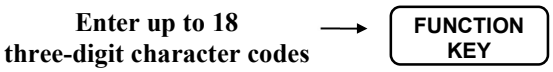
1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **8 0**, press the **SBTL** key.

3. If you are programming using the **Alpha Keyboard Overlay**, type up to 18 descriptors on the overlay, press the **X/TIME** key, 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-digit character codes and press the function key you are programming. (Refer to "Descriptor Code Chart" on page 147.)

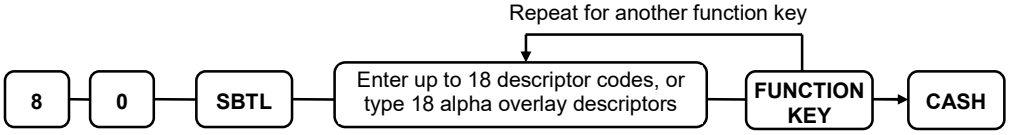
4. To program additional function keys, repeat from step 3, or press the **CASH** key to finalize the program.

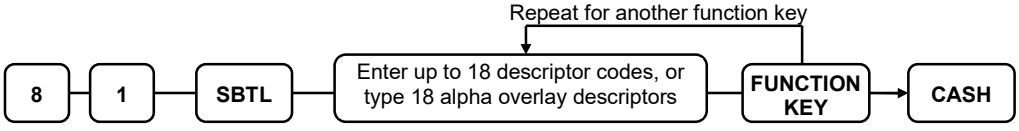
Descriptor Programs for the #/No Sale Key – Programs 80 & 81

Since two distinct operations reside on the #/No Sale key, Non-Add # entry and No Sale operation, different programs are used for the descriptor programming for each operation of the key.

To program the **No Sale descriptor**:



To program the **Non-Add # Descriptor**:

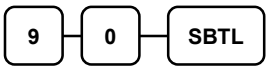


Program 90 – Function Key HALO

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 Mode Switch to the **PGM** position.
2. To begin the program, enter **9 0**, press the **SBTL** key.

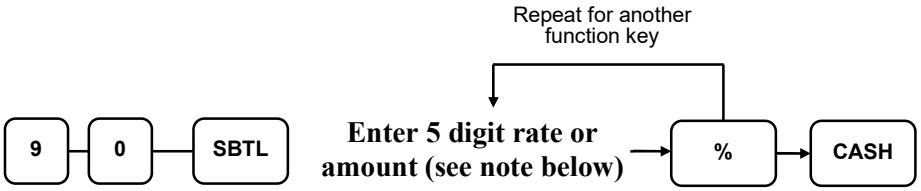


3. Enter a **HALO** of up to eight digits, (or "0" for no HALO). Press the function key on the keyboard you wish to program.

Enter 1-8 digit HALO

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

Instructions for %1-%5 Keys – Program 90

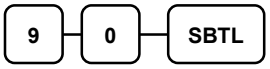


Notes: If the % key is set as an amount discount, enter a 5-digit HALO amount or enter 0 for no HALO.
If the % key is a percentage, enter the percentage in a five-digit format, without the decimal (XXxxx).
For example: For 10%, enter 10000; for 5.55%, enter 05550; for 99.999%, enter 99999.

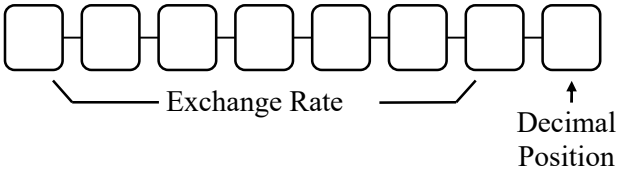
Instructions for Currency Conversion Rate - Program 90

Use Program 90 to program the exchange rate for 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 178 for details.

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **9 0**, press the **SBTL** 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. Refer to "Currency Exchange Rate Programming Examples" below.



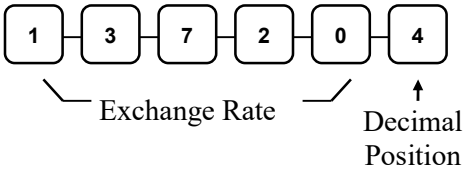
4. Press the **CURRENCY CONVERSION** function key on the keyboard you wish to program.

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

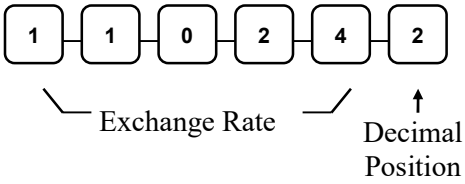
Currency Exchange Rate Programming Examples

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).



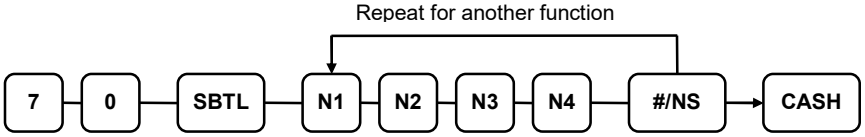
The US dollar (home currency) is worth 110.24 Japanese Yen (foreign currency).



#/NS – Function Options

(Key Code 313) This key is used to add a number to a transaction or as a No-Sale operation to open the drawer.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	No Sale is inactive?	Yes = 1 No = 0		
	No Sale under Manager control?	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		

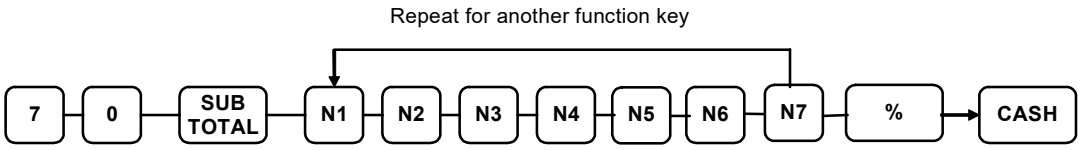
#/NO SALE Key Option Definitions

Option	Entry	Description
No Sale is Inactive?	Y or N	Select **Y** to disable the no sale function (non-add entries are allowed).
Under Manager Control	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
Inactive after Non-Add entry?	Y or N	Select **Y** if you want to disable the NO SALE function after a non-add number is entered.
Enforce Non-Add # at beginning of sale?	Y or N	Select **Y** if you wish to enforce the entry of a non-add number at the beginning of each transaction. (For example, to track the number of customers in each sale, or to identify a customer number with each sale.)
Print when No-Sale performed?	Y or N	Select **N** to stop printing when a NO SALE is performed.
Non-Add # entries prohibited?	Y or N	Select **Y** to disable the non-add # function.
Compulsory non-add entry must match MAX DIGIT flag below?	Y or N	Select **Y** if you wish all non-add number entries to have the exact number of digits selected in the MAX DIGIT flag below.
MAX DIGIT (0-8)	0-8	Enter the maximum number of digits allowed for a non-add number entry. Zero (0) means no limit.

%1-%5 – Function Options

(Key Code 314~318) Each % key is set with a specific operation such as item discount or surcharge or sale discount or surcharge. For instruction on setting the value for the rate *(percentage / amount)* refer to the chapter "Program 90 Instructions for %1 - %5 Keys" on page 189.

Options - Program 70 (P-Mode)



Address	OPTION		VALUE	=	SUM
N1	Apply an:	Amount =	1		
		Percentage =	0		
	Key Disable		Yes = 2 No = 0		
	% Key is under Manager control?		Yes = 4 No = 0		
N2	% Key is:	Open =	1		
		Preset =	0		
	% Key is:	Sale =	2		
		Item =	0		
	OVERRIDABLE: 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	F/S ELIGIBLE: Reduce (or increase) the food stamp subtotal by % entry?		Yes = 1 No = 0		
	ONE TIME SBTL ENTRY: Allow only one time subtotal entry?		Yes = 2 No = 0		
	MULT AMT DISCOUNT: Allow multiple amount discounts (coupons) without pressing subtotal?		Yes = 4 No = 0		
N6	PRESET OVERRIDE: Allow % key preset override active in **"X"** Mode Switch position only?		Yes = 1 No = 0		
	COMPULSORY VALID: Validation is compulsory?		Yes = 2 No = 0		
N7	Print Tax Symbol *(Added at v01.118)*		Yes = 0 No = 1		

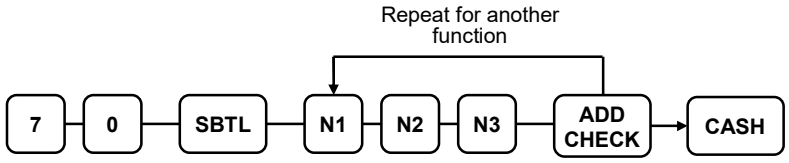
%1 -%5 Function Key Option Definitions

Option	Entry	Description
% Key applies an AMOUNT or a RATE (Percentage)	AMOUNT: Y or RATE: N	Select **Y** to apply an amount (such as for a coupon). Select **N** to apply a percentage (such as for a % discount or % surcharge).
Key Disable	Y or N	Select **Y** to disable this function.
% Key is Under Manager Control	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
% Key is:	OPEN: Y PRESET: N	Select **Y** for the amount or percentage to be entered by the operator. Select **N** for the amount or percentage to automatically be entered.
% Key is:	SALE: Y ITEM: N	Select **Y** if you wish the amount or percentage to apply to the sale total. Select **N** if you wish the amount or percentage to apply to an individual item.
OVERRIDABLE: Allow % Key override preset?	Y or N	Select **Y** if you wish to enter a percentage or amount to override the preset percentage or amount set in the RATE field. Select **N** if you **do not** want to allow override of the preset percentage or amount.
% Key is:	POSITIVE: Y NEGATIVE: N	Select **Y** if you wish the amount or percentage to add to the sale total. Select **N** if you wish the amount or percentage to subtract from the sale.
TAXable By TAX1 TAXable By TAX2 TAXable By TAX3 TAXable By TAX4	Y or N	Select **N** to tax any taxable items before the discount or surcharge is applied. The discount or surcharge amount is not included in the Tax Sales amount. Select **Y** to tax any taxable items after the discount or surcharge is applied. The discount or surcharge amount is included in the Tax Sales amount.
F/S ELIGIBLE	Y or N	Select **Y** to reduce (or increase) the food stamp subtotal by the amount of the % key value.
ONE TIME SBTL ENTRY	Y or N	If **Y**, you can enter only a single coupon and you must press the **SBTL** key before the coupon value.
MULT AMT DISCOUNT	Y or N	If you set a % key to be used for vendor coupons *(i.e. amount, negative and sale status)* choose **Y** to allow the function to be operated multiple times, after the initial coupon entry, without requiring the **SBTL** key to be pressed prior to each subsequent coupon entry.
PRESET OVERRIDE	Y or N	Select **Y** to allow preset override operation only in the manager mode *("X" mode switch position.)*.
COMPULSORY VALID	Y or N	Choose **Y** to enforce validation if an optional slip printer with validation capability is connected to an RS-232C port.
PRINT TAX SYMBOL	Y or N	Select **Y** *(default setting)* to print the tax symbol with the discount amount on receipts when the taxable 1-4 status is set to Yes.

ADD CHECK – Function Options

(Key Code 320) Use this key to combine guest checks for payment.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disabled?	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		

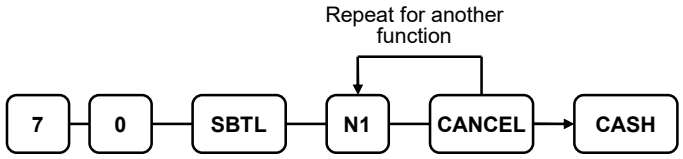
ADD CHECK Key Option Definitions

Option	Entry	Description
Key Disable	Y or N	Select **Y** to disable this function.
Compulsory before tendering?	Y or N	Select **Y** to force the operator to use the ADD CHECK function before tendering.
Advance the consecutive # when used?	Y or N	Select **Y** to advance the consecutive number each time the ADD CHECK key is used.
Delete the pre/postamble when this function is used?	Y or N	Select **Y** to delete the preamble and postamble each time the ADD CHECK key is used.
EXEMPT TAX 1, 2, 3, 4	Y or N	Select **Y** to exempt the appropriate tax automatically when finalized with this key.
Validation is compulsory?	Y or N	Choose **Y** to enforce validation if an optional printer with validation capability is connected to an RS-232C port.

CANCEL – Function Options

(Key Code 321) Use this key to cancel the current transaction, no totals will be updated to reports.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disabled?	Yes = 1 No = 0		
	Key is under manager control?	Yes = 2 No = 0		

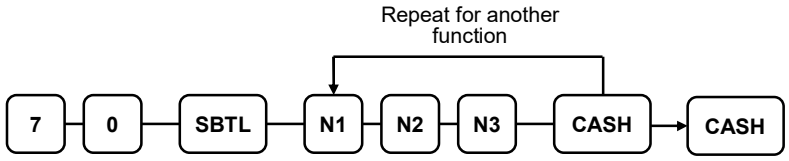
CANCEL Key Option Definitions

Option	Entry	Description
Key Disable	Y or N	Select **Y** to disable this function.
Under Manager Control	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.

CASH – Function Options

(Key Code 322) Use this key to tender a sale when the customer pays with regular currency\cash.

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		

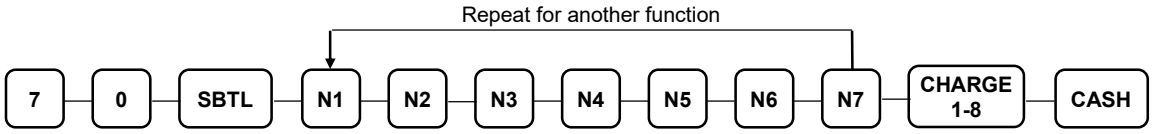
CASH Key Option Definitions

Option	Entry	Description
Amount tender is compulsory?	Y or N	Select **Y** to force the operator to enter the tendered amount and let the register calculate the change.
Allow over tendering and under tendering in **"X"** control lock position only?	Y or N	Select **Y** if you do not want the operator to tender more than the amount of the sale and issue change. Over and under tendering is only allowed in the **"X"** mode switch position.
Disable under tendering?	Y or N	Select **Y** if you do not want the operator to tender less than the amount of the sale.
Open cash drawer?	Y or N	Select **N** if you do not want the drawer to open with this key.
EXEMPT TAX 1, 2, 3, 4	Y or N	Select **Y** to exempt the appropriate tax automatically when finalized with this key.
Validation is compulsory?	Y or N	Choose **Y** to enforce validation if an optional printer with validation capability is connected to an RS-232C port.

CHARGE 1-8 – Function Options

(Key Codes 323~330) Used to track payments made using Credit Card, Debit Card, Store Charge and Gift cards.

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)* **Note:** *At v01.124 selection #3 was changed from Gift to NP Credit. (Cash Benefit requires v01.030 or later.)*	Credit = 1 Debit = 2 NP Credit = 3 Gift NSF = 4 *Cash Benefit = 5		
N6	Show TIP on: *(Available at v01.072 and later; Only used with EMV, DC Direct, Dejavoo.)*	REG = 0 PINPAD = 1 Print Tip Line Only = 2		
N7	Manual Entry *(Added at v02.000 Only for Datacap DC Direct.)*	Yes = 1 No = 0		

N5 – At v01.030, EBT Cash Benefit was added – EBT cash can be used to purchase any item at a grocery store, food stamps can only be used to purchase certain food items.

At v01.0.124, GIFT was changed to NP Credit – Partial tender on credit sales will be declined.

N7 – At v02.000, Manual Entry was added for DC Direct integrated payment.

Also see the Surcharge % Rate – 92 SBTL and the Multi-Pricing % Rate – 93 SBTL programming.

CHARGE 1-8 Key Option Definitions

Option	Entry	Description
Amount tender is compulsory?	Y or N	Select **Y** to force the operator to enter the tendered amount and let the register calculate the change.
Allow over tendering and under tendering in **"X"** control lock position only?	Y or N	Select **Y** if you do not want the operator to tender more than the amount of the sale and issue change. Over and under tendering is only allowed in the **"X"** mode switch position.
Disable under tendering?	Y or N	Select **Y** if you do not want the operator to tender less than the amount of the sale.
Open cash drawer?	Y or N	Select **N** if you do not want the drawer to open with this key.
Allow over tendering?	Y or N	Select **Y** to allow tender greater than the amount of the sale.
Non-add # entry compulsory?	Y or N	Select **Y** to enforce the entry of a non-add number prior to tendering.
EXEMPT TAX 1, 2, 3, 4	Y or N	Select **Y** to exempt the appropriate tax automatically when finalized with this key.
Validation compulsory?	Y or N	Choose **Y** to enforce validation if an optional printer with validation capability is connected to an RS-232C port.
Send to EFT	Y or N	Select **Y** if you want this key to send to total to the connected DataTran device.
Select Transaction Type: ***(Only used when Send to EFT = Yes)***	1, 2, 3, 4, 5 *(Choose one selection only.)*	Select card type: *(Only used when Send To EFT = Y)* **1 = Credit**; **2 = Debit** **3 = NPCredit** *(3: GIFT was changed to 3: NPCredit at v1.124) (Partial Tender on credit card sale will be declined.)* **4 = GiftNSF** *(Gift-Not Sufficient Funds)* indicates that a Gift card with a value less than the amount of the sale will be accepted as an under tender. *(Applies to DataTran operations only.)* **5 = Cash Benefit** function was added at version 1.034 EBT cash can be used to purchase any item at a grocery store, food stamps can only be used to purchase certain food items.
Show TIP on:	0, 1, 2	Available at v1.072 and later; Only used with Datacap EMV enabled applications. **0 = REG** **1 = PINPAD** **2 = Print Tip Line Only**
Surcharge %	0.00 ~ 4.00	The **"Surcharge %"** Rate setting ***(92 SBTL)*** and the **"Multi-Pricing %"** Rate setting ***(93 SBTL)*** on the CHARGE 1-8 Tender keys are separate features are only used with DC Direct.
Multi-Pricing %		
Manual Entry	Y or N	**"Manual Entry"** operations for DC Direct requires a separate charge key with this option selected. You will have two charge keys, one for regular credit card operations and one for manual entry of a credit card.

Surcharge % rate (92 SBTL), Multi-Pricing % rate (93 SBTL) programming, and Manual Entry were added at v02.000 for DC Direct integrated payment. The Surcharge % and Multi-Pricing % features allow you to add a service amount when tendering a sale using the Charge 1-8 Tender keys. You would set up one or the other of these features, but not both features at the same time.

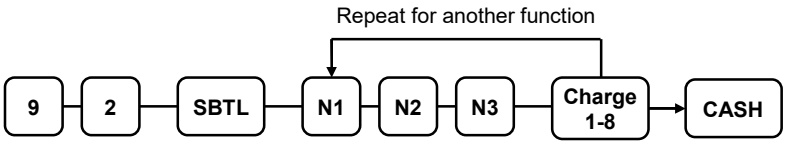
Surcharge % Rate Programming – 92 SBTL

Used with DC Direct Only

If you select to use the Surcharge % rate option on the function key, up to a 3-digit % rate entry is allowed.

Enter up to three digits for the desired rate, acceptable values from 0 ~ 400 are allowed, then press the **CHARGE** key.

1. Turn the mode switch to the **PGM** position to enter the **Surcharge %** rate.



Multi-Pricing % Rate Programming – 93 SBTL

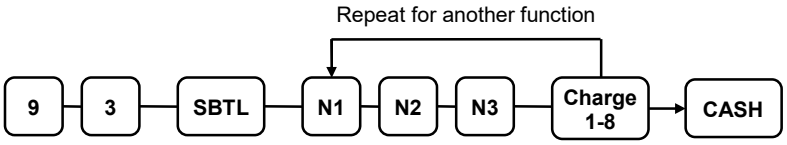
Used with DC Direct Only

If you select to use the Multi-Pricing % rate option on the function key, up to a 3-digit % rate entry is allowed.

Enter up to three digits for the desired rate, acceptable values are 0 *(zero)* and from 25 ~ 400 are allowed, then press the **CHARGE** key.

Alternatively, you can enter a value of 401 if you want the **CHARGE** key to appear on the Pin-Pad display but not add a fee when used.

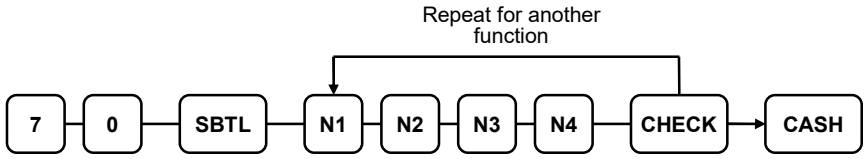
1. Turn the mode switch to the **PGM** position to enter the **Multi-Pricing %** rate.



CHECK – Function Options

(Key Code 333) Used to track payments made using written checks.

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		

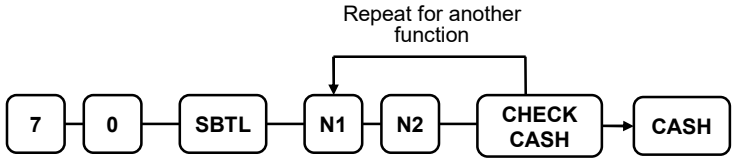
Check Key Option Definitions

Option	Entry	Description
Amount tender is compulsory.	Y or N	Select **Y** to force the operator to enter the tendered amount and let the register calculate the change.
Allow over tender and under tender in **"X"** control lock position only?	Y or N	Select **Y** if you do not want the operator to tender more than the amount of the sale and issue change. When selected, over tendering is allowed only in the **"X"** Mode Switch position.
Disable under tendering?	Y or N	Select **Y** if you do not want the operator to tender less than the amount of the sale.
Open cash drawer?	Y or N	Select **N** if you do not want the drawer to open with this key.
EXEMPT TAX 1, 2, 3, 4	Y or N	Select **Y** to exempt the appropriate tax automatically when finalized with this key.
Check endorsement compulsory?	Y or N	Choose **Y** to enforce check endorsement if an optional printer with endorsement capability is connected to an RS-232C port.
Validation is compulsory?	Y or N	Choose **Y** to enforce validation if an optional printer with validation capability is connected to an RS-232C port.

CHECK CASHING – Function Options

(Key Code 331) Can be used to exchange a written check for cash from the ECR drawer.

Options – Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disable	Yes = 1 No = 0		
	Key is under Manager control?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		
N2	Check Endorsement is compulsory?	Yes = 1 No = 0		

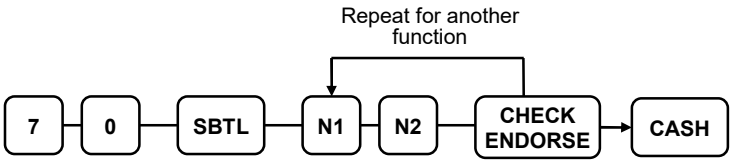
CHECK CASHING Key Option Definitions

Option	Entry	Description
Key Disable	Y or N	Select **Y** to disable this function.
Under Manager Control	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
Validation is compulsory?	Y or N	Choose **Y** to enforce validation if an optional printer with validation capability is connected to an RS-232C port.
Check Endorsement is compulsory?	Y or N	Choose **Y** to enforce check endorsement if an optional printer with validation capability is connected to an RS-232C port.

CHECK ENDORSEMENT – Function Options

(Key Code 332) When the merchants accepts written checks for payment and you have an option slip printer connected to the ECR you can use the check endorsement key to endorse the check. Use this key to print a check endorsement message (up to 10 lines) on written checks using an optional slip printer.

Options – Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disabled?	Yes = 1 No = 0		
	Print the amount of the check and the 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		

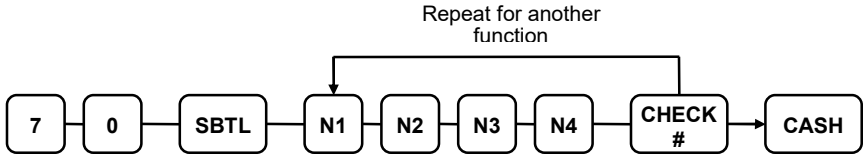
CHECK ENDORSEMENT Key Option Definitions

Option	Entry	Description
Key Disable	Y or N	Select **Y** to disable this function.
Print the amount of the check and endorsement message?	Y or N	Choose **Y** to print the amount of the check as well as the endorsement message. Choose **N** to print only the endorsement message. **Note:** A 10-line / 32 characters per line, check endorsement message may be programmed. Refer to "Endorsement Message" on page 234 for more information.
Print Date, Print Time, Print Clerk Print Consecutive Number?	Y or N	Select **Y** to print the selection on the slip.

CHECK # – Function Options

(Key Code 334) Use to begin a new guest check or open an existing itemized check when using soft check tracking or use to access an existing balance when using hard checks.

Options – Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disabled?	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		

CHECK # Key Option Definitions

Option	Entry	Description
Key Disable	Y or N	Select **Y** to disable this function.
Before registering, begin a tracking number?	Y or N	If **Y**, you must begin a new or recall an existing tracking number before registering items.
Opening clerk has exclusive access?	Y or N	If **Y**, the clerk that begins a tracking number is the only clerk who can recall a check. If **N**, any clerk can recall any check.
Check track # and balance will print on receipt?	Y or N	If **N**, the check track number and balance will not print on the receipt.
Check track # and balance will print on remote?	Y or N	If **N**, the check track number and balance will not print on the remote.
Allow only one check per table?	Y or N	If **Y**, you can begin only one check with the same table #.
Check# is automatically assigned by register?	Y or N	If **Y**, press the CHECK. # key to automatically assign the next sequential check. Check numbers will begin with #1 and continue until the open check report is reset, at which point the check number will be reset and start at #1 again.
PBAL key is used Drive-thru recall key?	Y or N	If you wish to implement a drive-thru recall key, this setting changes the function of the PBAL key to that of a recall key. Press the PBAL key directly to automatically recall the open check with the lowest tracking number
Length of Check (0-9)	0 – 9	Set the length of check in number of digits. For example, if 4, then checks must be used in the range from 1000, to 9999. This setting applies only to check numbers input by the operator, not to check numbers assigned by the register.

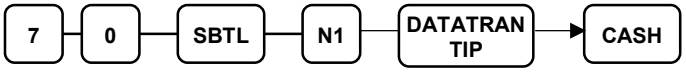
CURRENCY CONVERSION 1-4 Keys

(Key Codes 337~340) Use to convert foreign currency to local currency value for sales payments. Refer to the "Instructions for Currency Conversion Rate – Program 90" on page 190 to set a conversion rate and decimal position.

DATATRAN TIP – Function Options

(Key Code 451) EMV integrated payment installations use the Datatran TIP function key for performing Tip entries in the register mode. If your application is set for "Fine Dining" *(System Option #39)* you must place this function on the keyboard to apply any TIP to a credit card. The Datatran Tip key must be set to Send to EFT for correct operation. You may also set this key to require manager approval for tip entry if desired. Other associated programming can be found on the Charge Key programming 'Show TIP' setting.

Options – Program 70 (P-Mode)



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

Datatran Tip Key Option Definitions

Option	Entry	Description
Under Manager Control	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
Send to EFT	Y or N	Select **Y** to use this function with integrated payment EMV integrated credit devices; select N if not using integrated payment.

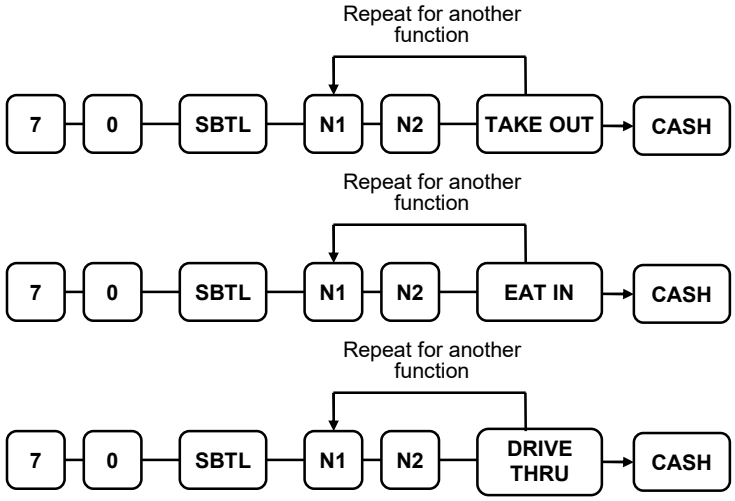
Datatran TIP Key Notes:

- To allow TIP entry you will also need to set ***System Option: EFT DRAFT = Fine Dining***.
- The Charge (1-8) function keys, Debit function key and the Gift Tender function key can be programmed to: ***SHOW TIP ON 1: PIN-PAD***

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

(Key Code 341, 342, 390) Use to track different types of sales on reports.

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		

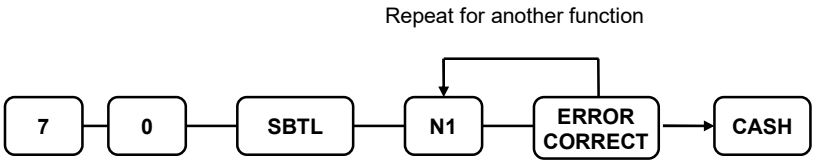
EAT-IN/TAKE OUT/DRIVE-THRU Key Program Notes

Option	Entry	Description
EXEMPT TAX 1, 2, 3, 4	Y or N	If you wish to automatically exempt the tax for a particular type of sale, select **Y** for the appropriate tax(s) to exempt. For example, if items are non-taxable for Take-Out orders, but taxable for Eat-In orders, set this program to exempt tax on take-out sales.
Validation is compulsory?	Y or N	Choose **Y** to enforce validation if an optional slip printer with validation capability is connected to an RS-232C port.

ERROR CORRECT – Function Options

(Key Code 343) Use this key to correct the last entry.

Options – Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disabled?	Yes = 1 No = 0		
	Key under Manager control?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		

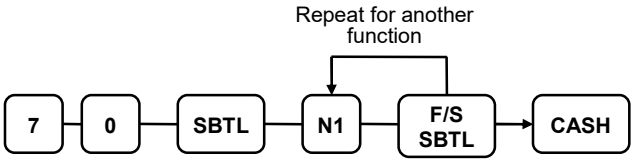
ERROR CORRECT Key Option Definitions

Option	Entry	Description
Key Disable	Y or N	Select **Y** to disable this function.
Under Manager Control	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
Validation is compulsory?	Y or N	Choose **Y** to enforce validation if an optional slip printer with validation capability is connected to an RS-232C port.

F/S Subtotal – Function Options

(Key Code 345) Use to get the subtotal of all food stamp eligible items in a sale.

Options – Program 70 (P-Mode)



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

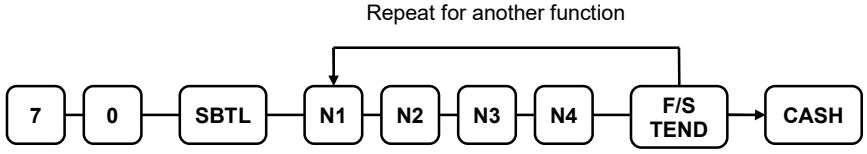
F/S Subtotal Key Option Definitions

Option	Entry	Description
Key Disable	Y or N	Select **Y** to disable this function.

F/S TEND – Function Options

(Key Code 346) Use to tender the food stamp eligible items in a sale using food stamps (EBT).

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		
	Allow Decimal Entry (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 v1.030 Only used for integrated payment applications.)*	Yes = 1 No = 0		
	Manual Entry *(Added at v02.000 Only used with Datacap DC Direct.)*	Yes = 2 No = 0		

N3 – The recommended setting for "Allow Over Tener" is "No". Since all food stamp payment are made by EBT, there is typically no situation where an over-tender would be allowed.

N4 –Manual Entry was added at v02.000 for DC Direct integrated payment.

Beginning at v02.006 when this option is set to Y to allow for manual EBT (Food Stamp) entry, the ECR displays: PRESS CASH=SWIPE CLEAR=MANUAL.

F/S TEND Key Option Definitions

Option	Entry	Description
EXEMPT TAX 1-4	Y or N	If taxes are exempted automatically on food stamp sales (as is most often the case) select **Y** for each tax that is actively used and needs to be exempted.
Allow Decimal Entry	Y or N	If **N**, food stamp tender must be in whole dollar amounts, i.e. $1, $5, or $10. If **Y**, the tender is allowed in any amount.
Open cash drawer?	Y or N	Select **N** if you do not want the drawer to open with this key.
Validation is compulsory?	Y or N	Choose **Y** to enforce validation if an optional printer with validation capability is connected to an RS-232C port.
Allow over-tender?	Y or N	Choose **Y** to allow tendering over the food stamp subtotal.
Send to EFT	Y or N	Option added at version 1.030. Select Y if you want this key to send to total to the connected Datatran device.
Surcharge % Rate	0.00 ~ 4.00	The **"Surcharge %"** Rate setting ***(92 SBTL)*** is only used with DC Direct.
Manual Entry	Y or N	**"Manual Entry"** operations for DC Direct requires a separate F/S TEND key with this option selected. You will have two F/S TEND keys, one for regular F/S card operations and one for manual entry of an F/S card.

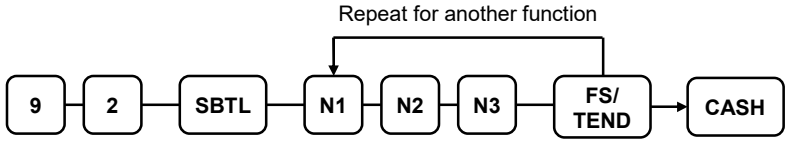
Surcharge % *(92 SBTL)* and Manual Entry were added at v02.000 for DC Direct integrated payment. The Surcharge % allows you to add a service amount to the F/S Tender keys.

Surcharge % Rate Programming – 92 SBTL

Used with DC Direct Only

If you select to use the Surcharge option on the function key, enter the % rate; up to a 4-digit entry is allowed.
Enter up to three digits for the desired rate, values from 0 ~ 400 are allowed, then press the FS/TEND key.

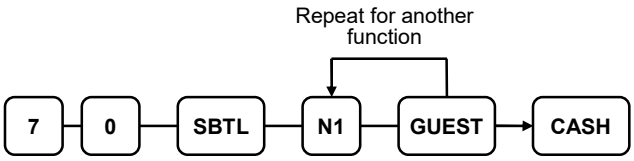
2. Turn the mode switch to the **PGM** position to enter the Surcharge % rate.



GUEST – Function Options

(Key Code 349) Use to enter the number of guests served by a transaction.

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		

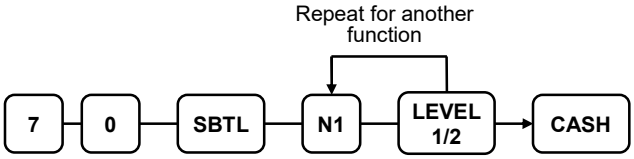
GUEST Key Option Definitions

Option	Entry	Description
Guest count entry compulsory when using guest check operations.	Y or N	Select **Y** to enforce an entry into the GUEST # key before a tracking number can be accessed for the first time.
Guest count entry compulsory for ALL Sales.	Y or N	Select **Y** to enforce an entry into the GUEST # key before an item can be registered on any sale.
Print Guest # at the kitchen printer?	Y or N	Select **N** if you do not want GUEST # entry to print at the kitchen printer if items from the same transaction are sent to the KP.

Level 1 & Level 2 – Function Options

(Key Code 351~352) When allocated for 2 price levels, use to switch between Price Level 1 and Price Level 2.
(Memory must be allocated for two price levels.)

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		

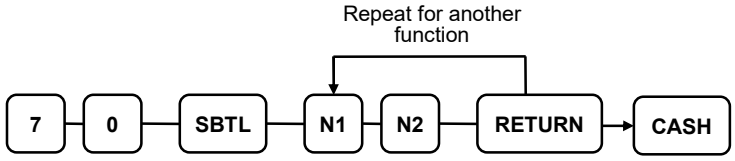
LEVEL 1-5 Key Option Definitions

Option	Entry	Description
Send Descriptor to Kitchen Printer	Y or N	Determines whether the level descriptor prints with the item at the KP.
Under manager control?	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.

MERCHANDISE RETURN – Function Options

(Key Code 366) Use the RETURN key to return merchandise *(MDSE RTRN)* previously purchased and provide a refund to the customer.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disable	Yes = 1 No = 0		
	Key is under Manager control?	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		

RETURN Key Option Definitions

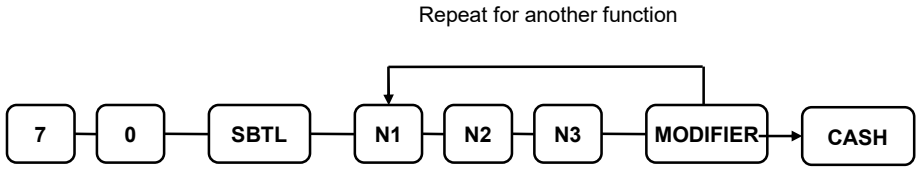
Option	Entry	Description
Key Disable	Y or N	Select **Y** to disable this function.
Key is under Manager control?	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
Validation is compulsory?	Y or N	Choose **Y** to enforce validation if an optional printer with validation capability is connected to an RS-232C port.
Y: Stay Down / N: Pop-up (added in v01.072)	Y or N	***Stay Down*** **–** The RETURN allies All items registered in the current sale. **Pop-Up –** The RETURN applies to only the immediate item registered after the RETURN key is pressed in the current sale.

MODIFIER 1-5 – Function Options

(Key Codes 367~365) Use modifier keys to register different sizes *(Small, Medium, Large, etc.)* of the same item.

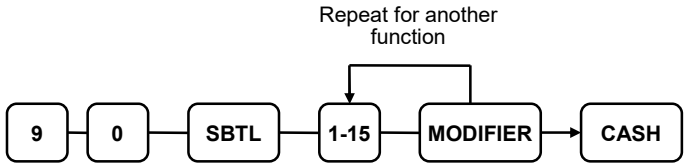
Note: See the "Modifier Key Programming Example" on the following page.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key is under Manager control?	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 1-5 Keys Option Definitions

Option	Entry	Description
UNDER MGR CONTROL	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
AFFECT PLU #	Y or N	Select **Y**, to modify the PLU and cause a different item/price to be registered. Select **N** to only add the modifier descriptor.
PRINT ON CHECK	Y or N	Select **N** to suppress printing of the modifier descriptor on the guest check.
PRINT ON RECEIPT	Y or N	Select **N** to suppress printing of the modifier descriptor on the receipt.
VALUE OF AFFECTED DIGIT (0-9)	0-9	Enter the value you wish to be added in the digit position selected. For example, if you wish to affect PLU digit #4 with a value of 1, then pressing this modifier key prior to the registration of PLU #17 will result in the registration of PLU #1017.
SEND DESCRIPTION TO KP	Y or N	Determines whether the modifier descriptor prints with the item at the KP. (The modifier descriptor will print immediately above the item.)

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. (Program 90 SBTL = Affected Digit; Always count from right to left to determine the PLU affected 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.

PLU digit 15 14 13 12 10 9 8 7 6 5 (4) 3 2 1

Small Root Beer New PLU # = 0 0 0 0 1 0 0 3

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

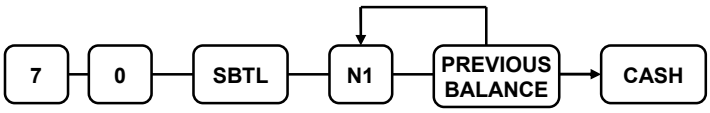
The following PLUs will be programmed:

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 Options

(Key Code 372) Use to enter a balance from a previous transaction into the current transaction.

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		

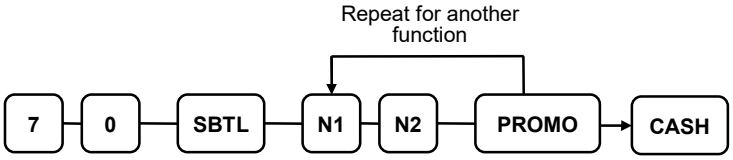
PBAL Key Option Definitions

Option	Entry	Description
Previous balance may be entered at any time?	Y or N	Select **Y** to allow the PBAL entry at any time. Select N to allow a PBAL entry only at the start of a sale.
Previous balance required at the start of the sale?	Y or N	Select **Y** to require an entry into the PBAL key at the start of every transaction.

PROMO – Function Options

(Key Code 381) Use to remove the cost of an item registered in the current sale.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disable	Yes = 1 No = 0		
	Key under Manager control?	Yes = 2 No = 0		
	Taxable By TAX1?	Yes = 4 No = 0		
N2	Taxable By TAX 2?	Yes = 1 No = 0		
	Taxable By TAX 3?	Yes = 2 No = 0		
	Taxable By TAX 4?	Yes = 4 No = 0		

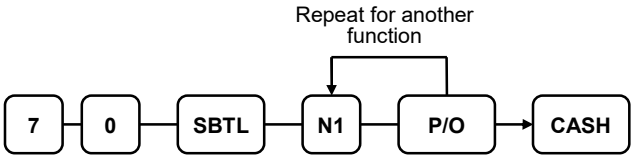
PROMO Key Option Definitions

Option	Entry	Description
KEY DISABLE	Y or N	Select **Y** to disable this function.
UNDER MGR CONTROL	Y or N	Select **Y** if you do not want the operator to use this function in REGISTER mode. The function is allowed only in the **"X"** Mode Switch position.
TAXABLE BY TAX 1, 2, 3, 4	Y or N	Select **Y** If an item is taxable and you wish to remove the taxes when using the PROMO key.

PAID OUT 1-3 – Function Options

(Key Codes 375~377) The Paid-Out (P\O) keys are used to account for cash removed from the cash drawer, such as for Cash Drops.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disabled?	Yes = 1 No = 0		
	Key is under Manager control?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		

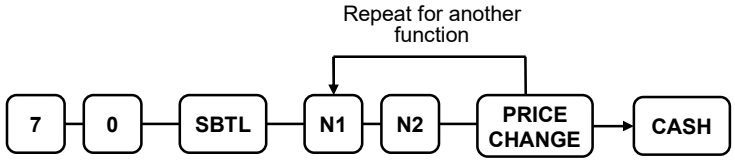
PAID OUT 1-3 Key Option Definitions

Option	Entry	Description
KEY DISABLE	Y or N	Select **Y** to disable this function.
UNDER MGR CONTROL	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
COMPULSORY VALIDATION	Y or N	Choose **Y** to enforce validation if an optional printer with validation capability is connected to an RS-232C port.

PRICE CHANGE – Function Options

(Key Code 450) The cashier can use this key to change the price of an item during a sale.

Options - Program 70 (P-Mode)



Address	OPTION		VALUE	=	SUM
N1	Permanently Change Item Price?	Never =	0		
		Always =	1		
		Prompt =	2		
N2	Key Disabled?		Yes = 1 No = 0		
	Key is under Manager control?		Yes = 2 No = 0		

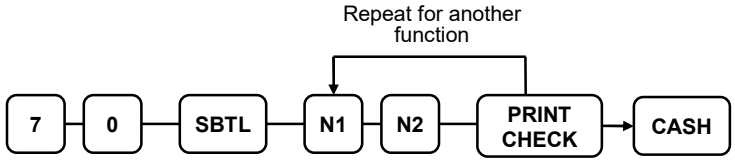
PRICE CHANGE Key Option Definitions

Option	Entry	Description
PERMANENT CHANGE	0-2	When using the price change key select: **0 –** to never permanently change the price **1 –** to always change the price permanently **2 –** to prompt the operator to choose whether to make the price change permanent or not.
KEY DISABLE	Y or N	Select **Y** to disable the function.
UNDER MGR CONTROL	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.

PRINT CHECK – Function Options

(Key Code 380) Use to print the currently displayed soft check. Function key can also be set to service the check.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Enter COM Port # (Zero if the check will print on the receipt printer)	0-4		
N2	Automatically service the check?	Yes = 1 No = 0		
	Skip printing of the consecutive number on the printed check.	Yes = 0 No = 2		

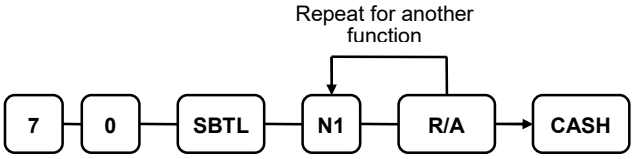
PRINT CHECK Key Option Definitions

Option	Entry	Description
CHECK PRINT COMM PORT # (0-4)	0-4	Select the **COM Port # (0 - 4)** where the guest check printer is attached. If set as 0 (zero), the check will print on the internal receipt printer.
AUTO SERVICE CHECK	Y or N	Select **Y** if you want the Check Print function to automatically service the check.
PRT CHECK ON RECEIPT	Y or N	Select **Y** if you want the Check Print function to print on the receipt printer.
SKIP PRT OF CONSECUTIVE NUMBER ON CHECK	Y or N	Select **Y** to not print the consecutive # on the guest check.

RECEIVED ON ACCOUNT 1-3 – Function Options

(Key Codes 382~384) Received on Account (R\A) keys are used to account for cash added to the drawer. For example, entering the beginning cash amount.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disabled?	Yes = 1 No = 0		
	Key is under Manager control?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		

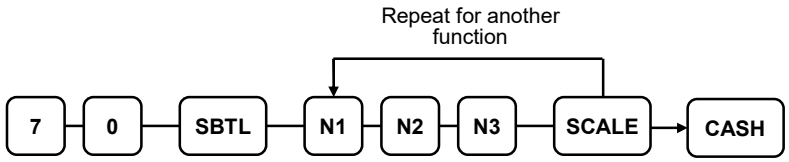
RECD ON ACCT 1-3 Key Option Definitions

Option	Entry	Description
KEY DISABLE	Y or N	Select **Y** to disable this function.
UNDER MGR CONTROL	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
COMPULSORY VALIDATION	Y or N	Choose **Y** to enforce validation if an optional slip printer with validation capability is connected to an RS-232C port.

SCALE – Function Options

(Key Code 386) Use to make weight entries for scalable items.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disabled.	Yes = 1 No = 0		
	Key is under Manager control.	Yes = 2 No = 0		
	Allow manual entry of weight.	Yes = 4 No = 0		
N2	Tare weight entry is compulsory.	Yes = 1 No = 0		
	Print $ on Scale Price *(Requires v1.104 or later)*	Yes = 2 No = 0		
	Allow dollar entry without scale on scalable items? Scalable items can be open price or scale entry.	Yes = 4 No = 0		
N3	Weight symbol for manual entry is:	Lb = 0 Kg = 1 Oz = 2		

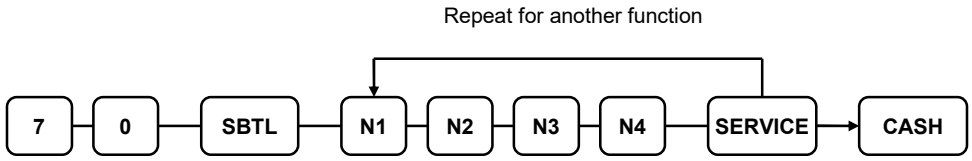
SCALE Key Option Definitions

Option	Entry	Description
KEY DISABLE	Y or N	Select **Y** to disable this function.
UNDER MGR CONTROL	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
KEY IS MANUAL ENTRY	Y or N	Select **Y** for the scale key to require manual entry of the weight. Select **N** to automatically recall the weight from the attached scale.
TARE-WEIGHT COMPULSORY	Y or N	Select **Y** if you wish to enforce the subtraction of a tare weight on the scale entry.
PRINT '$' ON SCALE PRICE	Y or N	When set to **Y**, the price per unit measure will include the $ sign.
ALLOW DOLLAR ENTRY W/O SCALE ON SCALABLE ITEM	Y or N	If **N**, you must use the scale to register scalable PLU items. If **Y**, you can either register scalable items by weight extension, or by price entry.
WEIGHT SYMBOL FOR MAN	Y or N	Select **0** – to use the weight symbol Lb (pounds) Select **1** – to use the weight symbol Kg (kilogram) Select **2** – to use the weight symbol OZ for ounce measurements

SERVICE – Function Options

(Key Code 387) Use to store the current guest check when using guest check tracking.

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"** Mode Switch 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 Hard Check Printer port number. *(If you are using a hard check system)*	0-4		

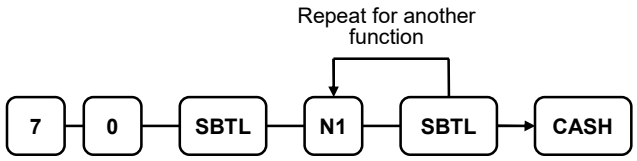
SERVICE Key Option Definitions

Option	Entry	Description
NON-ADD # COMP	Y or N	Select **Y** to force the entry of a non-add number (i.e. a tax exempt #) before the key is used
PRINT ON RECEIPT	Y or N	Select **N** to not print on the receipt.
NEGATIVE BALANCE IN MANAGER CONTROL	Y or N	Select **Y** to not allow the operator to use this function in the register mode. The function will only be allowed in the **"X"** mode switch position.
CALCULATE TAX (1-4)	Y or N	Select **Y** to calculate and add the appropriate tax automatically when finalized with this key.
COMPULSORY VALIDATION	Y or N	Choose **Y** to enforce validation if an optional printer with validation capability is connected to an RS-232C port.
HARD CHECK PRINTER PORT # (0-4)	0-4	If you are using a hard check system, enter the RS232C port number (1-4) where the optional guest check slip printer is attached. (0 = Not used)

SUBTOTAL – Function Options

(Key Code 385) Use to display the subtotal for the current sale.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disable	Yes = 1 No = 0		
	Display Rounded Subtotal? *(Requires v1.036 or later)*	Yes = 2 No = 0		

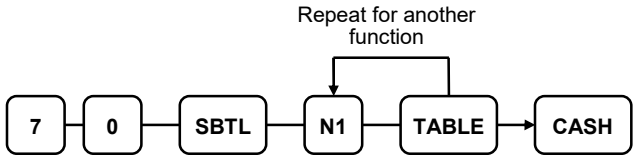
SUBTOTAL Key Option Definitions

Option	Entry	Description
Key Disable	Y or N	Select **Y** to disable this function.
Display Rounded Subtotal?	Y or N	Added at v01.036; If **Y**, the rounded subtotal will be displayed along with the actual subtotal. Also requires System Option #21 & 22 setting.

TABLE – Function Options

(Key Code 388) Use to enter a table number on the currently open guest check.

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		

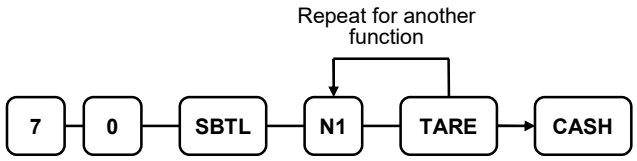
TABLE Key Option Definitions

Option	Entry	Description
ENFORCE ON CHECK #	Y or N	If **Y**, you must enter the table number before opening a new guest check #.
ENFORCE ON ALL SALES	Y or N	If **Y**, you must enter the table number before beginning any transaction.
PRINT AT REMOTE PRINTER	Y or N	Choose **Y** to print the table number at the remote printer.

TARE – Function Options

(Key Code 389) Used to subtract the weight of the container or packaging on Scale items.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disabled?	Yes = 1 No = 0		
	Is Key under Manager control?	Yes = 2 No = 0		
	Use tare number 5 to manually enter tare weight?	Yes = 4 No = 0		

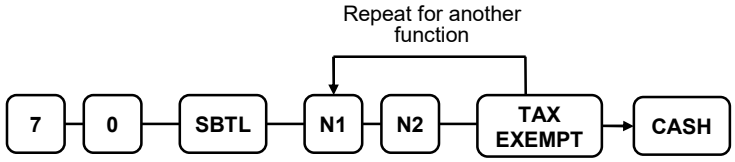
TARE Key Option Definitions

Option	Entry	Description
KEY DISABLE	Y or N	Select **Y** to disable this function.
UNDER MANAGER CONTROL	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
#5 IS MANUAL TARE	Y or N	Choose **Y** to use tare number five to manually enter a tare weight.

TAX EXEMPT – Function Options

(Key Code 391) Used to remove taxes *(Exempt)* from the current sale.

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		

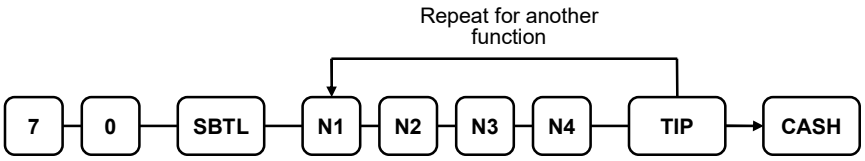
TAX EXEMPT Key Option Definitions

Option	Entry	Description
EXEMPT TAX 1, 2, 3, 4	Y or N	Select **Y** or **N** for each tax to determine which tax or taxes are exempted when this key is used.
NON-ADD # COMPULSORY	Y or N	Select **Y** to force the entry of a non-add number *(i.e. a tax exempt #)* before the key is used.
COMPULSORY VALIDATION	Y or N	Choose **Y** to enforce validation if an optional slip printer with validation capability is connected to an RS-232C port.

TIP – Function Options

(Key Code 397) Only used with Guest Check Tracking to add a Tip amount to the currently open guest check.

Options - Program 70 (P-Mode)



Address	OPTION		VALUE	=	SUM
N1	Tip is:	Percentage =	1		
		Amount =	0		
N2	Key Disabled?		Yes = 1 No = 0		
	Key under Manager control?		Yes = 2 No = 0		
	Add tax rate 1? **Y** = tax is calculated & added on the tip amount.		Yes = 4 No = 0		
N3	Add tax rate 2? **Y** = tax is calculated & added on the tip amount.		Yes = 1 No = 0		
	Add tax rate 3? **Y** = tax is calculated & added on the tip amount.		Yes = 2 No = 0		
	Add tax rate 4? **Y** = tax is calculated & added on the tip amount.		Yes = 4 No = 0		
N4	Add the tip total to the NET and GROSS sales total?		Yes = 1 No = 0		

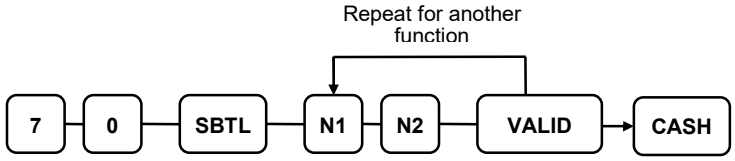
TIP Key Option Definitions

Option	Entry	Description
TYPE IS %:1 AMOUNT:0	0 or 1	Select **1** if the tip is to be calculated as a percentage based on the subtotal of the guest check. Select **0** if the TIP is to be an amount entry.
KEY DISABLE	Y or N	Select **Y** to disable this function.
UNDER MANAGER CONTROL	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
ADD TAX RATE 1, 2, 3, 4	Y or N	Choose **Y** to if tax is calculated and added on the tip amount.
AMT ADDED TO NET AND GROSS TOTAL	Y or N	Choose **Y** if you wish to add the TIP total to the **NET** and **GROSS** sales totals on the financial report.

VALIDATION – Function Options

(Key Code 401) Use to print a single line validation for an item or sale. Requires an optional slip printer connected to the ECR for this feature.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Enter serial port # for the slip printer used for validation. 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		

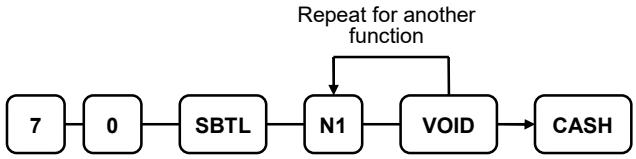
VALIDATION Key Option Definitions

Option	Entry	Description
SLIP OUTPUT COMM PORT # (0-4)	0-4	If validation is used, identify the communications port (1-4) where the validation slip printer is attached. Enter 0 if validation is not used.
KEY DISABLE	Y or N	Select **Y** to disable this function.
ALLOW MULTIPLE VALID?	Y or N	Select **Y** to allow multiple validations of the same transaction.

VOID – Function Options

(Key Code 398) Use to remove any previously entered item from the current sale.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disabled?	Yes = 1 No = 0		
	Key is under Manager control?	Yes = 2 No = 0		

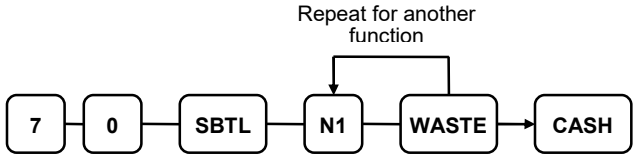
VOID ITEM Key Option Definitions

Option	Entry	Description
KEY DISABLE	Y or N	Select **Y** to disable this function.
UNDER MGR CONTROL	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.

WASTE – Function Options

(Key Code 399) Used outside of a sale to allow control of inventory items that must be removed from stock due to spoilage, breakage or mistakes.

Options - Program 70 (P-Mode)



Address	OPTION	VALUE	=	SUM
N1	Key Disabled?	Yes = 1 No = 0		
	Key is under Manager control?	Yes = 2 No = 0		
	Validation is compulsory?	Yes = 4 No = 0		

WASTE Key Option Definitions

Option	Entry	Description
KEY DISABLE	Y or N	Select **Y** to disable this function.
UNDER MANAGER CONTROL	Y or N	Select **Y** to not allow use of this function in REGISTER mode, the function will only be allowed in the **"X"** Mode Switch position.
COMPULSORY VALIDATION	Y or N	Choose **Y** to enforce validation if an optional slip printer with validation capability is connected to an RS-232C port.

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-900E can accommodate up to 99 different mix and match discounts.

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

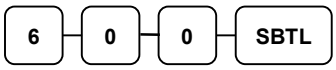
- ***Program 600 – Trip Level Programming –*** This program sets the number of items that must be purchased to receive the discount.
- ***Program 601 – Price Programming –*** This program sets the amount of the discount.
- ***Program 610 – Mix & Match Descriptor –*** This program allows you to set a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

Additional Mix & Match discount options are set through separate programs:

- In the **P** Mode Switch position:
  - ***"PLU Mix & Match Programming" – (450 SBTL Program)*** You must link eligible items to the appropriate Mix & Match discount.
    See page 166 for PLU programming details.
  - ***"System Option Programming" –*** Optionally, you can choose to make M & M discount taxable. *(Tax is applied to the "Net amount after the M & M discount)*.
    See page 167 for "System Option Programming" MIX & MATCH IS TAXABLE is option #33.

Program 600 – Trip Level Programming

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **6 0 0**, press the **SBTL** key.



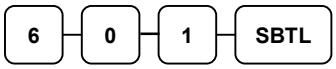
3. Enter the number **(1-99)** of the mix and match table you wish to program; press the **X/TIME** key.

4. Enter a **Trip Level** of up to 5 digits (the Maximum Level you can enter is 50000) and press the **SBTL** 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 Mode Switch to the **PGM** position.
2. To begin the program, enter **6 0 1**, press the **SBTL** key.



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

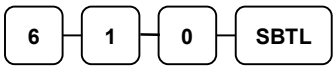
4. Enter a **Price/HALO** (up to 7 digits) and press the **SBTL** key.

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

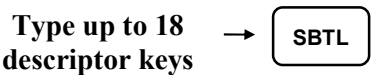
Program descriptors by typing descriptors on the alpha keyboard overlay or by entering the three-digit alpha character codes. To enter descriptors by three-digit alpha character codes you must set system option #31 (Refer to "System Option Programming" on page 167).

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **6 1 0**, press the **SBTL** key.

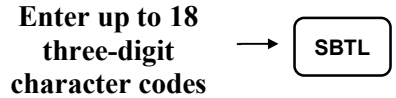


3. Enter the number **(1-99)** of the M&M table you wish to program; press the **X/TIME** key.

4. If you are programming using an alpha keyboard overlay, type up to 18 descriptors on the overlay and press the **SBTL** 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-digit character codes and press the **SBTL** key.



5. Press the **CASH** key to finalize the program.

Clerk Programming

Clerks *(managers, cashiers, wait-staff, etc.)* have the following programming categories.

- ***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. Refer to "System Option Programming" on page 167.
- ***Program 801 – Drawer Assignment –*** If a second cash drawer is installed, determines which cash drawer will be opened for each.
- ***Program 810 – Clerk Descriptor Programming –*** Allows you to enter a unique Clerk Name (up to 18 characters) for each clerk.

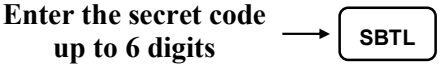
Before attempting any programming, all clerks must first be signed off in REG mode.

Program 800 – Secret Code Programming

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **8 0 0**, press the **SBTL** 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 **SBTL** key.



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

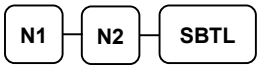
Program 801 – Drawer Assignment

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **8 0 1**, press the **SBTL** 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 **SBTL** 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	

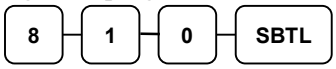


5. Repeat from step 3 for each clerk you wish to program. Press the **CASH** key to finalize the program.

Program 810 – Clerk Descriptor Programming

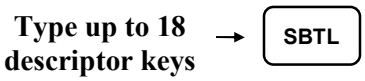
Program descriptors by typing descriptors on the alpha keyboard overlay or by entering three-digit alpha character codes. To enter descriptors by three-digit alpha character codes you must set system option #31 (Refer to "System Option Programming" on page 167).

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **8 1 0**, press the **SBTL** key.

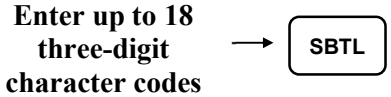


3. Enter the number **(1-99)** of the clerk you wish to program; press the **X/TIME** key.

4. If you are programming using an alpha keyboard overlay, type up to 18 descriptors on the overlay and press the **SBTL** 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-digit character codes and press the **SBTL** key.



5. Press the **CASH** key to finalize the program.

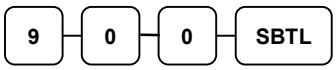
Group Programming

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. (Refer to "Program 150 – PLU Group Assignment" on page 160 to program PLU groups for each PLU.)

- ***Program 900*** – ***Group Status Programming –*** Used to program the status for each group, i.e. a group can be set to *not add* to the total of all groups, or a group can be used to designate items for kitchen printer assignment.
- ***Program 910*** – ***Group Descriptor Programming –*** Used to assign a unique descriptor for each group, so that the group may be easily understood on the group report.

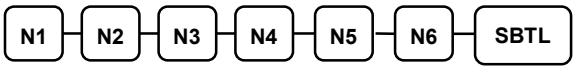
Program 900 – Group Status Programming

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **9 0 0**, press the **SBTL** 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.)*



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	The 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 (register receipt)	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 *(Requires v1.056 or later)*	0-5		

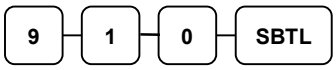
Group Programming - Reference Information

Option	Entry	Description
ADD TO GROUP TOTAL	Y or N	Select **No** if you do not wish this groups total to be added to the total of all groups on the Group report.
SEND TO KITCHEN PRINTER	Y or N	Select **Yes** if you wish to send PLU's reporting to this group to a kitchen printer.
KP PORT #	Y or N	Select the Port # for where the kitchen printer is connected.
PRINT RED ON KP	Y or N	Select **Yes** if you wish items reporting to this group to print in red on the kitchen printer. **Notes:** The kitchen printer must have red/black printing capability. This option does not apply to the register receipt printer. This option has no effect on E-PAD\KVS.
GIFT CARD	0, 1 or 2	Select **1** "Activate" if a PLU in this group is used to register a new gift card. Select **2** "Add" if a PLU in this group is used to add value to an existing gift card. Select **0** for all other normal PLU registrations.
AGE VERIFICATION	0-5	When an item in this group is registered *(first time in a transaction only)*, the register will prompt the operator to enter the customer's date of birth. The sale of the item will be registered only if the customer has reached the appropriate age. Set **"0"** for no age requirement. Select **"1"** to **"5"** to set the required age to purchase PLU's in this group according to the Age Verification as set in Program 990 – Age Verification on page 240.

Program 910 – Group Descriptor Programming

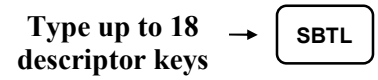
Program descriptors by typing descriptors on the alpha keyboard overlay or by entering three-digit alpha character codes.

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **9 1 0**, press the **SBTL** key.

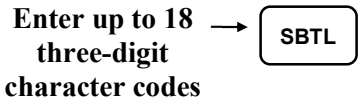


3. Enter the number **(1-99)** of the group you wish to program; press the **X/TIME** key.

4. If you are programming using an alpha keyboard overlay, type up to 18 descriptors on the overlay and press the **SBTL** 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-digit character codes and press the **SBTL** key.



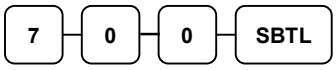
5. To program additional groups, repeat from step 3, or press the **CASH** key to finalize the program.

Miscellaneous Programming

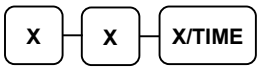
Program 700 – Logo/Endorsement Message Programming

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 Mode Switch to the **PGM** position.
2. To begin the program, enter **7 0 0**, press the **SBTL** key.



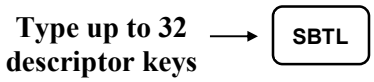
3. Refer to the chart below and enter the number that represents the line you wish to program; press the **X/TIME** key.



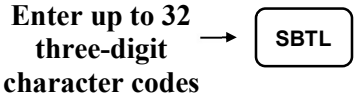
X	Message Line
1	1st line of Preamble
2	2nd line of Preamble
3	3rd line of Preamble
4	4th line of Preamble
5	5th line of Preamble
6	6th line of Preamble
7	1st line of Postamble
8	2nd line of Postamble
9	3rd line of Postamble
10	4th line of Postamble
11	5th line of Postamble

X	Message Line
12	6th line of Postamble
13	1st line of Endorsement
14	2nd line of Endorsement
15	3rd line of Endorsement
16	4th line of Endorsement
17	5th line of Endorsement
18	6th line of Endorsement
19	7th line of Endorsement
20	8th line of Endorsement
21	9th line of Endorsement
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 **SBTL** key.
5. (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-digit character codes and press the **SBTL** key.

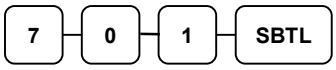


6. Press the **CASH** key to finalize the program.

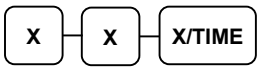
Program 701 – Financial Report Descriptor Programming

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 indicate "FOOD SALES". You can reprogram any of the Financial Report totals listed here with any 18-character descriptor.

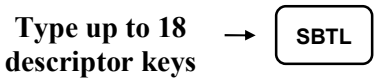
1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **7 0 1**, press the **SBTL** key.



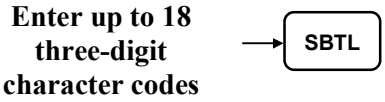
3. Refer to the chart on the next page and enter the number that represents the line you wish to program; press the **X/TIME** key.



4. If you are programming using an alpha keyboard overlay, type up to 18 descriptors on the overlay and press the **SBTL** 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-digit character codes and press the **SBTL** key.



5. Press the **CASH** key to finalize the program.

Financial Report Descriptors

XX	Message Line
1	+PLU TTL
2	-PLU TTL
3	ADJST TTL
4	NONTAX
5	TAX1 SALES
6	TAX2 SALES
7	TAX3 SALES
8	TAX4 SALES
9	TAX1
10	TAX2
11	TAX3
12	TAX4
13	XMPT1 SALES
14	XMPT2 SALES
15	XMPT3 SALES
16	XMPT4 SALES
17	EATIN TTL
18	TAKEOUT TTL
19	DRTHRU TTL
20	% 1
21	% 2
22	% 3
23	% 4
24	% 5
25	NET SALE
26	CREDIT TAX1
27	CREDIT TAX2
28	CREDIT TAX3
29	CREDIT TAX4
30	FD/S CREDIT
31	RETURN

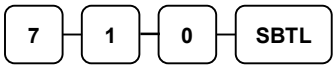
XX	Message Line
32	ERROR CORR
33	PREVIOUS VD
34	VOID MODE
35	CANCEL
36	GROSS SALES
37	CASH SALES
38	CHECK SALES
39	R/A 1
40	R/A 2
41	R/A 3
42	P/O 1
43	P/O 2
44	P/O 3
45	HASH TTL
46	AUDACTION
47	NOSALE
48	CASH-IN-D
49	CHECK-IN-D
50	FD/S-IN-D
51	CHG1-IN-D
52	CHG2-IN-D
53	CHG3-IN-D
54	CHG4-IN-D
55	CHG5-IN-D
56	CHG6-IN-D
57	CHG7-IN-D
58	CHG8-IN-D
59	CHG1 SALES
60	CHG2 SALES
61	CHG3 SALES
62	CHG4 SALES

XX	Message Line
63	CHG5 SALES
64	CHG6 SALES
65	CHG7 SALES
66	CHG8 SALES
67	FOREIGN 1
68	FOREIGN 2
69	FOREIGN 3
70	FOREIGN 4
71	DRWR TTL
72	PROMO
73	WASTE
74	TIP
75	TRAIN TTL
76	BAL FORWARD
77	GUESTS
78	P/BAL
79	CHECKS PAID
80	SERVICE
81	MIX&MATCH
82	PAYMENT TTL
83	ROUND EFFECT
84	CASH RETURNS
85	CREDIT TAX CASH
86	CASH VOID MODE
87	CHG1 RETURNS
88	CREDIT TAX CHG1
89	CHG1 VOID MODE
90	VD SALE REC#
91	VD RETN REC#

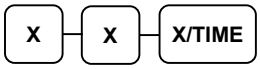
Program 710 – Clerk Report Descriptor Programming

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 Mode Switch to the **PGM** position.
2. To begin the program, enter **7 1 0**, press the **SBTL** 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 **SBTL** key.
   (**Note:** As you are entering descriptors only the last 16 descriptors will display.)

   Type up to 18 descriptor keys → SBTL

   - If you are programming using descriptor codes, enter up to 18 three-digit character codes and press the **SBTL** key.

     Enter up to 18 three-digit character codes → SBTL

5. Press the **CASH** key to finalize the program.

   CASH

Clerk Report Descriptors

XX	Message Line
1	NET SALE
2	NONTAX
3	TAX1 SALES
4	TAX2 SALES
5	TAX3 SALES
6	TAX4 SALES
7	TAX1
8	TAX2
9	TAX3
10	TAX4
11	XMPT1 SALES
12	XMPT2 SALES
13	XMPT3 SALES
14	XMPT4 SALES
15	EATIN TTL
16	TAKEOUT TTL
17	DRTHRU TTL
18	% 1
19	% 2
20	% 3
21	% 4
22	% 5
23	CREDIT TAX1
24	CREDIT TAX2
25	CREDIT TAX3

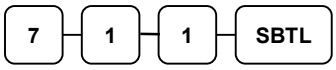
XX	Message Line
26	CREDIT TAX4
27	FD/S CREDIT
28	RETURN
29	ERROR CORR
30	PREVIOUS VD
31	VOID MODE
32	CANCEL
33	GROSS SALES
34	CASH SALES
35	CHECK SALES
36	R/A 1
37	R/A 2
38	R/A 3
39	P/O 1
40	P/O 2
41	P/O 3
42	HASH TTL
43	CASH-IN-D
44	CHECK-IN-D
45	FD/S-IN-D
46	CHG1 SALES
47	CHG2 SALES
48	CHG3 SALES
49	CHG4 SALES
50	CHG5 SALES

XX	Message Line
51	CHG6 SALES
52	CHG7 SALES
53	CHG8 SALES
54	FOREIGN 1
55	FOREIGN 2
56	FOREIGN 3
57	FOREIGN 4
58	DRWR TTL
59	PROMO
60	WASTE
61	TIP
62	TRAIN TTL
63	BAL FORWARD
64	GUESTS
65	P/BAL
66	CHECKS PAID
67	SERVICE
68	NOSALE
69	MIX&MATCH
70	PAYMENT TTL
71	ROUND EFFECT
72	VD SALE REC#
73	VD RETN REC#

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 Mode Switch to the **PGM** position.
2. To begin the program, enter **7 1 1**, press the **SBTL** 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 **SBTL** key.
   (**Note:** As you are entering descriptors only the last 16 descriptors will display.)

   Type up to 18 descriptor keys → SBTL

   - If you are programming using descriptor codes, enter up to 18 three-digit character codes and press the **SBTL** key. (Refer to "Descriptor Code Chart" on page 147.)

     Enter up to 18 three-digit character codes → SBTL

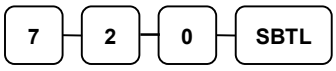
5. Press the **CASH** key to finalize the program.

   CASH

Program 720 – Datatran Message Program

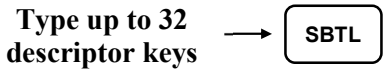
When a Non-EMV Datatran integrated payment appliance is connected, you can print a message of up to four lines on the electronic payment draft receipt. This message does not print on Datacap EMV integrated payment appliances.

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **7 2 0**, press the **SBTL** key.

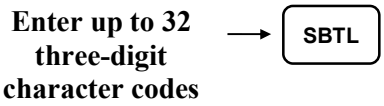


3. Enter the number of the message line **(1-4)** you wish to program; press the **X/TIME** key.

4. If you are programming using an alpha keyboard overlay, type up to 32 descriptors on the overlay and press the **SBTL** 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-digit character codes and press the **SBTL** key. (Refer to "Descriptor Code Chart" on page 147.)



5. Press the **CASH** key to finalize the program.

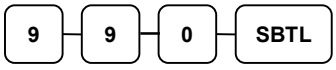
Program 990 – Age Verification

An age verification feature was added at version 1.056 and 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. Refer to Program 900 - "Group Status Programming" on page 231.

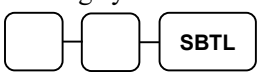
You also need to assign the group to the 1st reporting group of the PLU. Refer to Program 150 – "PLU Group Assignment" on page 160.

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **9 9 0**, press the **SBTL** 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 **SBTL** key.



5. Press the **CASH** key to finalize the program.

Program 1000 – NLU Code Number Programming

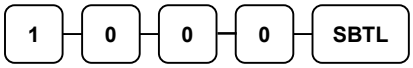
Keyboard PLUs are fixed keys on the keyboard (like traditional department keys) that access specific PLUs. In the default program each Keyboard PLU will look up the appropriate numeric PLU, beginning with PLU #1 for Keyboard PLU key #1 and continuing sequentially through the keyboard.

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.

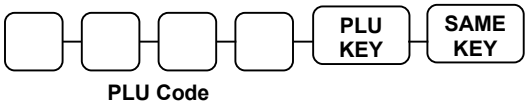
On the ER-920 and ER-940 default keyboard, there are 100 keyboard PLU keys. The ER-925 and ER-945 come equipped with 21 Keyboard PLUs and may be expanded to up to 63 Keyboard PLUs. The ER-915E has 7 PLUs on the default keyboard and may be expanded to 14 keyboard PLUs.

Programming the NLU Code Number

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **1 0 0 0**, press the **SBTL** 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.



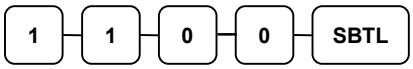
4. Repeat step #3 to program additional Keyboard PLU locations or press **CASH** to finalize the program.

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 Mode Switch to the **PGM** position.
2. To begin the program, enter 1 1 0 0, press the **SBTL** 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 Mode Switch to the **PGM** position.
2. To begin the program, enter **1 2 0 0**, press the **SBTL** key.

3. Enter the desired **CHECK CHANGE LIMIT** (up to 8 digits or 0 for no limit); press the **X/TIME** key.

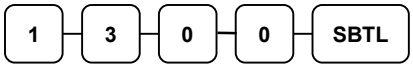
4. Press the **CASH** key to finalize the program.

Program 1300 – Time and Date Programming

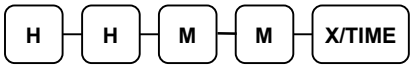
Use this program to set the clock and calendar on your ER-900E Series register. The date changes automatically. After initial setting, time changing will probably be required only for beginning and ending daylight savings time.

Programming the Time and Date

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **1 3 0 0**, press the **SBTL** key.



3. Enter the **TIME** in military standard time HHMM (based on 24 hour clock), must be four digits. *(i.e. 1:00 PM – 1300)*; 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.

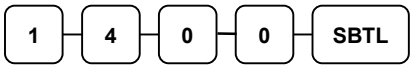
If your scale is reading pounds, enter the tare in pounds; if your scale is reading ounces, enter the tare in ounces.

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 entered 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. (Refer to "Scale Operation" on page 89.)

Programming the Tare Weight

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **1 4 0 0**, press the **SBTL** 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 **SBTL** key.

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

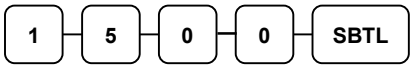
Program 1500 – Macro Key Sequence Programming

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. (Refer to "Function Key Assignment Programming" on page 125 to place macros on the keyboard.)

To program a name for the MACRO use the Program 711 – Macro Name Programming, see page 239 for details.

To Program a Macro

1. Turn the Mode Switch to the **PGM** position.
2. To begin the program, enter **1 5 0 0**, press the **SBTL** key.



3. Press the **MACRO KEY** that you wish to program.

Mode switch Mode Information: When in Macro programming, turning the Mode Key to another position will program that operation into the Macro (**Z**, **X**, or **REG**). Example: If you wish a **Z-Report** macro to operate in REG mode, first turn the mode switch to **Z** before recording keystrokes. You can turn the mode switch again to another key position during the recording of the macro if necessary. You must return the mode switch to the **PGM** mode to finalize the macro recording. When the MACRO is pressed in the **"REG"** position, the macro will set the register to **"Z"** and run the report.

4. Enter up to **50 KEYSTROKES** that you wish the macro to execute.
5. If you turned the Mode key to the X or Z position, return the mode switch to the **PGM** position. Press the same **MACRO KEY** again to finalize.

6. Repeat from step 3 to program additional macros. Press the **CASH** key to finalize the program.

Edit a Macro

We do not have the ability on the ER-900E Series ECR to scroll to a specific keystroke to edit. To edit the operation of an existing MACRO you would simply reprogram the Macro with the desired keystrokes.

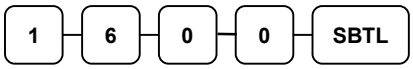
If there are extra keystrokes at the end of the MACRO that need to be removed, assign the Inactive function *(key code 447)* to those locations.

Program 1600 – Machine Number Programming

The machine number *(Register Number)* can be 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 Mode Switch to the **PGM** position.
2. To begin the program, enter **1 6 0 0**, press the **SBTL** key.



3. Enter a **MACHINE NUMBER** (up to 5 digits); press the **X/TIME** key.

4. Press the **CASH** key to finalize the program.

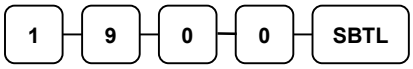
Program 1900 – Starting Kitchen Printer Order Number

In many fast service installations multiple registers may print to a kitchen printer. The Starting KP Order Number allows merchants to assign the number at which KP orders start at for each register at a site. This allows the staff to easily track the register that each order originates from.

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 Mode Switch to the **PGM** position.
2. To begin the program, enter **1 9 0 0**, press the **SBTL** key.



3. Enter the **STARTING NUMBER** (up to 4 digits); press the **X/TIME** key.

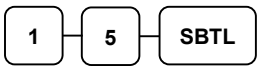
4. Press the **CASH** key to finalize the program.

Program Scans

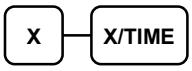
Since much time and energy has been invested in the planning and programming of your *ER-900E*, it is advisable to print a hard copy of the final program for future reference. This copy should be kept in a safe place. (You can also save your program electronically, on an SD card. Go to "Program Backup and Restore" on page 135 to use this method.)

Program Scan Operation

1. Turn the Mode Switch to the **PGM** position.
2. To print a program scan, enter **1 5**, press the **SBTL** 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
0	Group
1	Tax
2	System Option
3	Print Option
4	Function Keys
5	Clerk
6	Preamble Message
7	Postamble Message

X	Program
8	Endorsement Message
9	Financial Report Message
10	Clerk Report Message
11	Macro Name
12	Drawer Limit
13	Check Change Limit
14	Time & Date
15	Tare Weight

X	Program
16	Machine Number
17	Mix & Match
18	Prints Pre-Loaded PreAmble Images
19	PIN Password Scan *(Not used)*
20	Prints Pre-Loaded PostAmble Images
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.

Integrated Payment

Datacap-EMV Tran Series

The ER-900E Series ECR's can support EMV or Non-EMV enabled devices for integrated payment transactions. There are different EFT Devices that will integrate with ER-900E Series ECR's, each device will setup differently. This guide describes integrated payment application utilizing Datacap-EMV Tran Series equipment.

For all integrated credit installations, refer the separate supplement available on the CRS website.

https://www.crs-usa.com/products/electronic-cash-registers/current-ecr-models/sam4s-ER-945-ecr-series

To implement the Datacap-EMV Tran Series application, the following is required:

- An active internet connection is required for the IPTran-LT to process credit card transactions. The Tran devices will need to obtain an IP address via DHCP, they are not able to be assigned a Static IP address. A serial connection is required at the Sam4POS terminal for the Datacap equipment interface.
- Update your ER-900E firmware to the latest EMV compatible version. Note that the version will provide several different System Options and new or different options on the Datatran Operation Table in the Z mode. Use this document, rather than Non-EMV integrated payment instructions when programming and operating your ER-900E/EMV application.
- For EMV applications, each register in the system must have an SD card installed in the SD card slot. The SD card slot is located inside the printer compartment. On the ER-920, the SD slot is located to the right of the printer mechanism; on the ER-915E\940\945 the SD slot is located to the rear of the receipt printer. Remove the security screw to access the slot.

Caution: Absolutely no credit card data is stored at the ECR. The SD card is used to store the token file so transaction records can easily be called up by invoice number for tip adjustment and voiding operations. SD Cards must be formatted for FAT32. The ER-900E Series ECR's can support SD cards up to 2GB according to specifications.

A 4GB SD card worked when tested, however, we cannot 100% recommend using a 4GB SD. Some report 4GB SD cards work well, some report a 4GB SD does not work.

- Deploy your application with the latest Datacap equipment, using either the IPTran LT, Tran Server with PDC's (Peripheral Device Controller) or NETePay Hosted. Refer to the configuration diagrams that follow. It is more cost-effective to use the Tran server and PDC configuration when your network includes four or more ER-900E Series ECR's.
- For the PIN-Pad/EMV chip reader, use any compatible pin-pad approved by Datacap, refer to the Datacap portal for a complete listing at: https://www.Datacapsystems.com/compatible-devices of compatible devices.
- When your configuration is completed and connected to an active Ethernet line the Datatran device will automatically receive any new software\load from the server by turning off and turning on the device.

Note: In older Equipment *(before the IPTran-LT had the 'call home' feature)* the ***"Dial In Load"*** procedure was used to manually load the parameters as explained on page 278.

- After the Datatran device is powered on and loaded, load the PIN-Pad parameters by performing the **"Parameter Download"** procedure as explained on page 280. This operation tells the Pin-Pad to get new parameters from Datacap.
- Backup the program to the SD.

Important EMV Notes:

- **Close Batch** & **Delete SD EMV File –** Needs to be performed every day at the register even when the site is set for auto batch with their processor. This is how Sam4s clears the token file. The token file is used to allow for "By Record" transactions (such as Void and Gratuity entry).
- **PIN-Pad is customer facing**…. There is no indication to the cashier what the end-user is doing (or not doing).
- **Cannot suppress the signature line –** In the Non-EMV world we added a system option flag to the registers: "NO SIGNATURE IF TRANSACTION IS UNDER $xx.xx". When this flag is set, the register will not print the signature line if the transaction is under the configured amount (usually set at $25).
    - This option does not work with EMV enable devices. The register receives the receipt data from the Datacap device and the signature line is included in the receipt data … therefore it cannot be controlled by the register.
- **Debit cards with EMV chip –** Since Datacap \ mercury do not currently support EMV Debit, all EMV Debit cards are forced to be inserted and are then processed as regular credit cards. This usually means a higher rate for the merchant on transactions over $25.
    - **Please Note:** Debit Transactions are processed in Real-Time. The Debit Tender amount is deducted from the account when the approved by the processor.
- **Timeouts for Pin-Pads cannot be configured at the ECR –** Some say they are too short, other say they are too long… cannot configure at register.
- **Consolidated Reports –** If an end-user wants consolidated reporting, they must use the configuration with Tran server (even if only two registers in their system). All registers will have a separate batch and work independent of each other (separate batching, separate reporting).
- **The Tran devices will need to obtain an IP address via DHCP.** They are not able to be assigned a Static IP address.
    - It is recommended to set the DHCP lease time for 7 days if possible.
- **Surcharge on Credit Card Transactions –** Merchants in the U.S. and U.S. territories may add a surcharge to credit card transactions, subject to certain limitations. Merchants who choose to surcharge must follow consumer disclosure and other requirements.
    - Currently, several states have laws that prohibit or limit adding a surcharge.
    - Surcharging is only allowed for credit card transactions and is not allowed for debit card transactions or prepaid gift card transactions.
    - A merchant surcharge can be between 1% and 4% but cannot be higher than the cost of your card processing. Surcharges can only be applied to certain payment amounts. The payment or transaction amount must be at least $1.00.

Substantial fines can be assessed to merchants for adding a surcharge to Debit Card and Pre-Paid Gift Card transactions!

Payment Application Best Practice Notes

Password Security: The ER-900E 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-900E features a Mode Switch with various levels of key security. Refer to the "Mode Switch" chapter on page 20.

Important! Keys that access the "Z" mode switch position (where DataTran payment functions can be performed) should only be distributed to managers or employees authorized to perform those functions.

Configuration Information

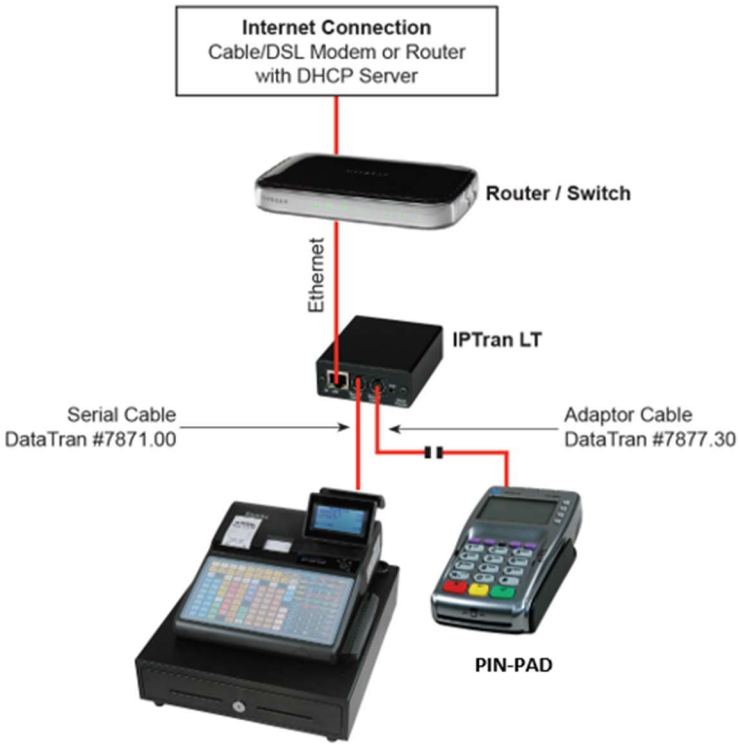
Datacap Current Equipment

These configuration diagrams show the connections when installing the latest generation EMV-Ready Datatran hardware (IPTran-LT) utilized in Non-EMV integrated payment installations.

IPTran-LT – Single Register Configuration

Notes:

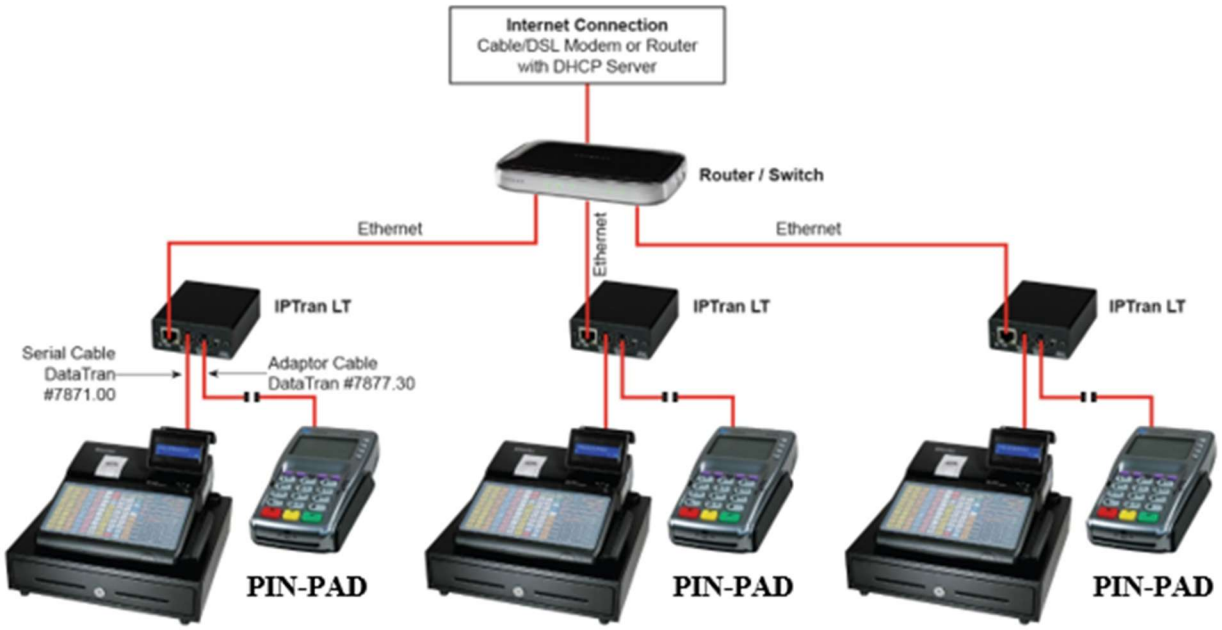
- IP Authorization Only *(must connect to internet)*



IPTran-LT – Multi ECR (3 or Less)

Notes:

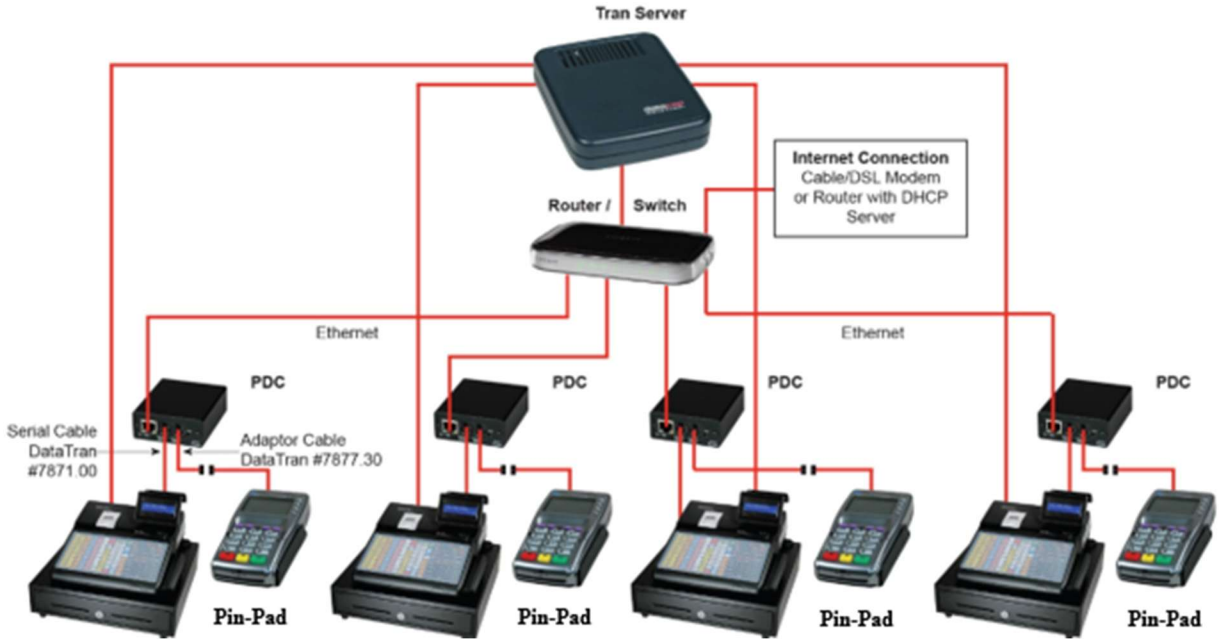
- IP Authorization Only *(must connect to internet)*
- At three units or fewer, it is more cost effective to use IPTran LT at each ECR (vs. Tran Server and PDCs)



IPTran-LT Multi ECR (4 or More)

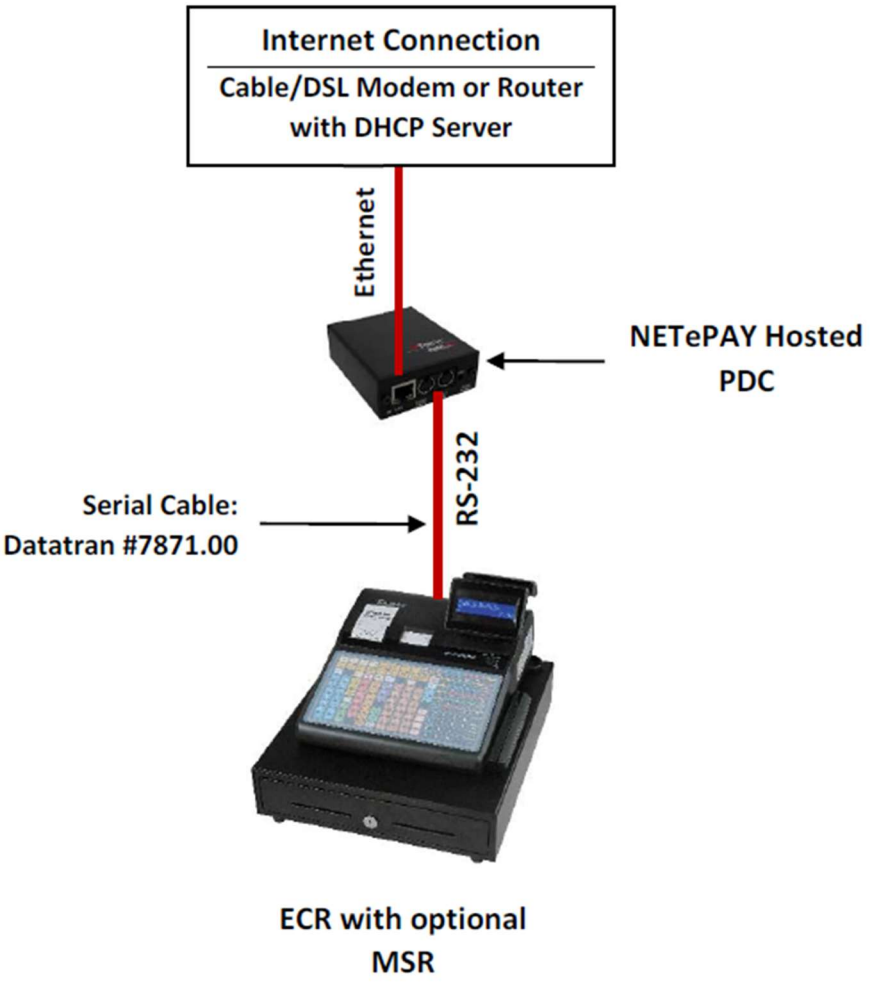
With Non-EMV load in the latest Datacap IPTran-LT Server with PDC's, each ER-900E Series ECR will need to have its own connection to the IPTran Server as well as a PDC connected to each station.

The IPTran Server and the PDC's will connect to a switch, the switch will then connect to an internet connection on the merchants internet router.



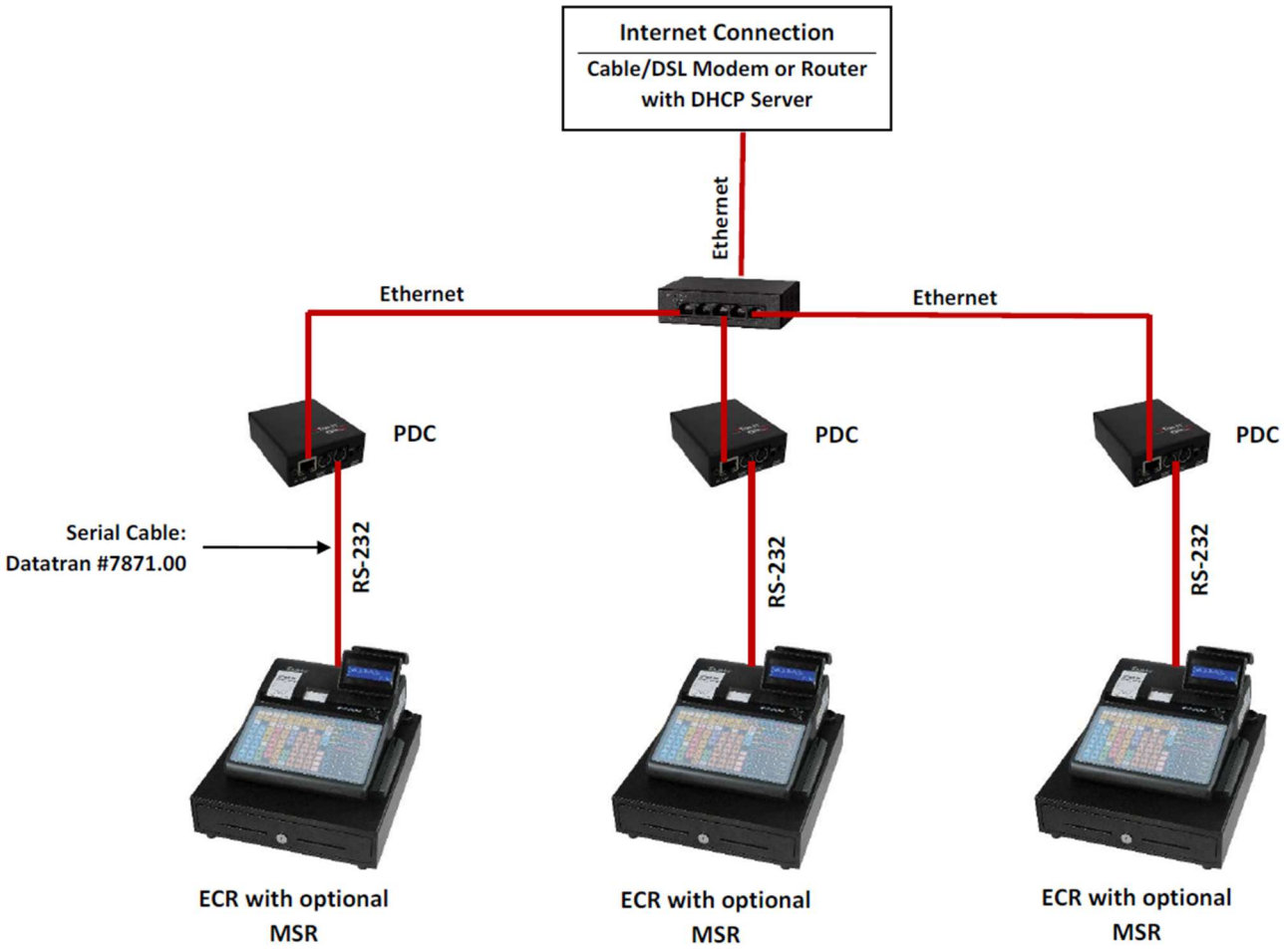
NETePay Hosted – Single ECR

You can use the optional integrated MSR on the ECR with the NETePay Hosted PDC.



NETePay Hosted – Multi ECR

You can use the optional integrated MSR on the ECR with the NETePay Hosted PDC.



Note: By default the PDC's will all be set up to talk to each other (single batch \ Tip entry at any terminal). If for some reason the merchant wanted them separate (separate batches \ tip entry only at the terminal that the original transaction occurred) the PDCs could be set up that way.

Required ECR Programs

The information provided here refers specifically to the Datacap-EMV Tran Series integrated payment solution with the Sam4s ER-900E Series ECR's utilizing the latest EMV enabled Datacap devices.

For Non-EMV installations, refer to the ER-900E Series Non-EMV Datacap document available on the CRS website. https://www.crs-usa.com/products/electronic-cash-registers/current-ecr-models/sam4s-ER-945-ecr-series

"RS-232 Communication Option Programs" Refer to page 127. You must set the EFT status for the port you are using. Set device function to "EFT Device" and set BAUD to "2400" for Non-EMV integrated payment devices.

- The Baud Rate setting for EMV enabled Datacap devices is 19,200 baud.
    - For Datacap-EMV integrated payment installations, refer to the separate document "ER-900E Datacap-EMV Supplement" available on the CRS website.
- The Baud Rate setting for EVO/Sterling SmartECR is 9600 baud.
    - For EVO\Sterling SmartECR integrated payment installations, refer to the separate document "ER-900E SmartECR Supplement" available on the CRS website.

"Function Key Assignment Programming" Refer to page for details 125. Function keys may be relocated, inactivated or changed with this program. Use this program if you need to add additional Charge keys or other keys.

"System Option Programming" Refer to page 167. Set up the system options to enable the Datacap-EMV.

Set address #37 = 1, Set address #38 = 0-4 for the Pin-Pad Port#, Set address #Set address #39 = 0 for Normal Draft with Normal Buffer Use, and Set address #43 = 1 or 3 to enable the PDC New Protocol.

"Print Option Programming" Refer to page 177. Set address #34 = 0 to Mask CC Number, Set address #35 for the number of Datatran receipt copies you wish to print (0-99).

"Function Key Programming" – Assign and Set up Charge Tender keys to use with integrated credit.

- **"CHARGE 1-8 – Function Options"** on page 197. Set option N5 to reflect the type of payment. Separate keys are required for Credit, NP Credit or Gift No NSF(check with your representative for availability of gift card processing).
  Typically, there is no need for a separate Debit key, the processor will define the specific card type – the Pin-Pad would prompt for Credit or Debit. If they chose Debit it would prompt for the PIN number.

**** Group Programming ** –** If you are integrating the sale of gift cards through the integrated payment device, you will need to set up two separate groups, one for Gift Card Activate status and one for Gift Card Add status.

**** PLU Programming ** –** If you are integrating the sale of gift cards through the integrated payment device, you will need to set up two separate PLUs, one to Activate new Gift Cards and one to Add Value to existing Gift Cards.

- Create a PLU for Gift Card Activate, link this PLU to the Gift Card Activate group.
- Create a PLU for Gift Card Add, link this PLU to the Gift Card Add group.
- If you are using EBT (Food Stamps) through the integrated payment device you will need to set up PLU's to be food stamp eligible in the PLU Status Programming.

Daily Procedures

Close Batch (Open Batch)

You must close the batch daily as this procedure clears the SD EMV file stored on the SD card and will automatically open a new batch for the next day. You can perform this operation at the close of business or at the beginning of the day before registering sales.

If the processor performs an 'Auto Batch" you will need to perform the 'Delete SD EMV File' operation each day at the register.

NOTE: When the current batch is closed a new batch is opened automatically for the next day.

1. Turn the Mode Switch to the **Z** position.
2. For non-debit applications: Enter **502**, press **SBTL**.
3. The message "WAITING FOR EFT" displays momentarily.
4. When communication is complete, the "Local Batch Status" report prints; then the
5. "Close Current Batch" report is printed.
6. The batch is closed and a new batch is automatically opened.

```
DATE 05/16/2017 MON   TIME 10:29

  **** LOCAL BATCH STATUS ****

BATCH STATUS    :          OPEN
BATCH NUMBER    :          0080
TRANSACTION CNT :             7
ITEM COUNT      :             7
BALANCE AMNT    :         16.00
FWD ITEM COUNT  :             *
FWD BALANCE AMNT:             *

CLERK 1           000065  00000




DATE 5/05/2017 THU    TIME 10:34

  *** CLOSE CURRENT BATCH ***

BATCH NUMBER    :          0080
NET AMNT SETTLED:         16.00
ITEM COUNT      :             7

 BATCH WAS CLOSED SUCCESSFULLY
CLERK 1           000097  00000
```

Sample Transaction

Close the previous day's batch before beginning a new sales day. The new batch is opened when the previous batch is closed.

The procedure below applies to Charge Tender keys set to connect to EFT and card type for Credit or Cash Benefit.

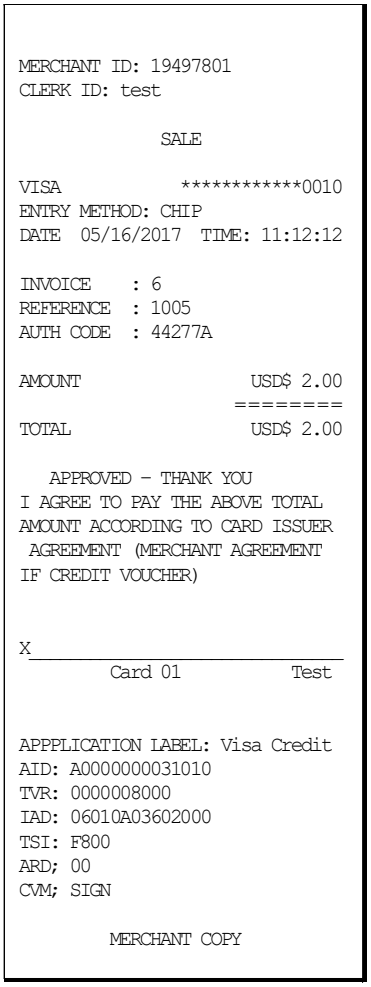
1. Register a normal transaction. Press the appropriate **CHARGE** key. The message "WAITING FOR EFT" displays.
2. At the Pin-Pad the amount confirmation message displays:

   SALE

   $20.00 – OK?
3. Press **OK** or press the **GREEN** button on the PIN-Pad keypad to accept.
   * *Pressing the RED button will CANCEL the operation.*
4. Insert the EMV card into the PIN-Pad. The PIN-Pad will display "PLEASE WAIT", then "DO NOT REMOVE CARD", and then "PROCESSING". When Complete, the "APPROVED" message will display.
5. Remove the card from the PIN-Pad.
6. At the register, the message "PRESS CASH TO CONTINUE" will display.
7. Press **CASH**. The receipt and card draft are printed.
8. If multiple documents are to be printed, the message "PRESS CASH TO CONTINUE" displays. Tear off the printer paper and press **CASH** to resume printing.

Sample Transaction Receipt (without tip)

Merchant and Customer Drafts (without tip)



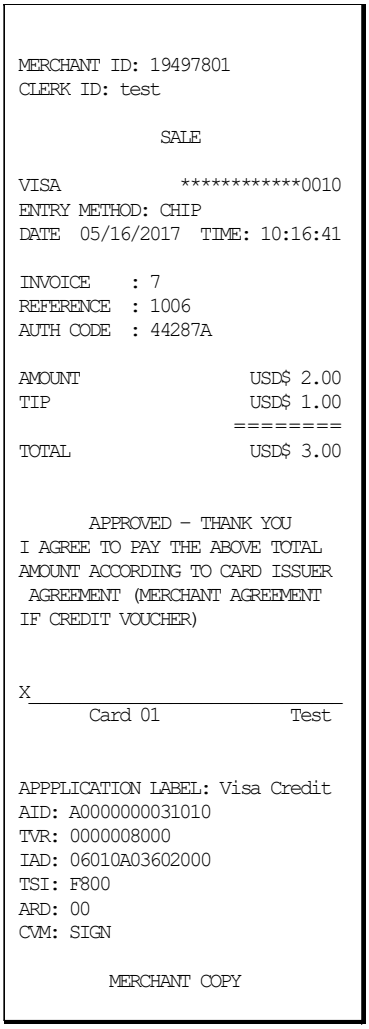
```
MERCHANT ID: 19497801
CLERK ID: test

             SALE

VISA            ************0010
ENTRY METHOD: CHIP
DATE  05/16/2017  TIME: 11:12:12

INVOICE    : 6
REFERENCE  : 1005
AUTH CODE  : 44277A

AMOUNT                 USD$ 2.00
                      ========
TOTAL                  USD$ 2.00

   APPROVED - THANK YOU
I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
 AGREEMENT (MERCHANT AGREEMENT
IF CREDIT VOUCHER)


X_____________________________
         Card 01           Test


APPPLICATION LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: F800
ARD; 00
CVM; SIGN

         MERCHANT COPY
```

```
DATE  05/16/2017 MON  TIME 11:12

PLU1                          $2.00
TOTAL                         $2.00
CHARGE1                       $2.00
----------------------------------------
SALE                          $2.00
VISA            ************0010
INVOICE    : 6
REFERENCE  : 1005
AUTH CODE  : 44277A
----------------------------------------
CLERK 1         No.000016  00000


MERCHANT ID: 19497801
CLERK ID: test

             SALE

VISA            ************0010
ENTRY METHOD: CHIP
DATE  05/16/2017  TIME: 11:12:12

INVOICE    : 6
REFERENCE  : 1005
AUTH CODE  : 44277A

AMOUNT                 USD$ 2.00
                      ========
TOTAL                  USD$ 2.00

   APPROVED - THANK YOU
I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
 AGREEMENT (MERCHANT AGREEMENT
IF CREDIT VOUCHER)


X_____________________________
         Card 01           Test


APPPLICATION LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: F800
ARD; 00
CVM; SIGN

         CUSTOMER COPY
```

Sample Credit Transaction Receipt (with PIN-Pad tip)

Charge key **N6** set to Show TIP on = PINPAD **(N6 = 1)**

Merchant and Customer Drafts (with PIN-Pad tip)



MERCHANT ID: 19497801
CLERK ID: test

SALE

VISA **********0010
ENTRY METHOD: CHIP
DATE 05/16/2017 TIME: 10:16:41

INVOICE : 7
REFERENCE : 1006
AUTH CODE : 44287A

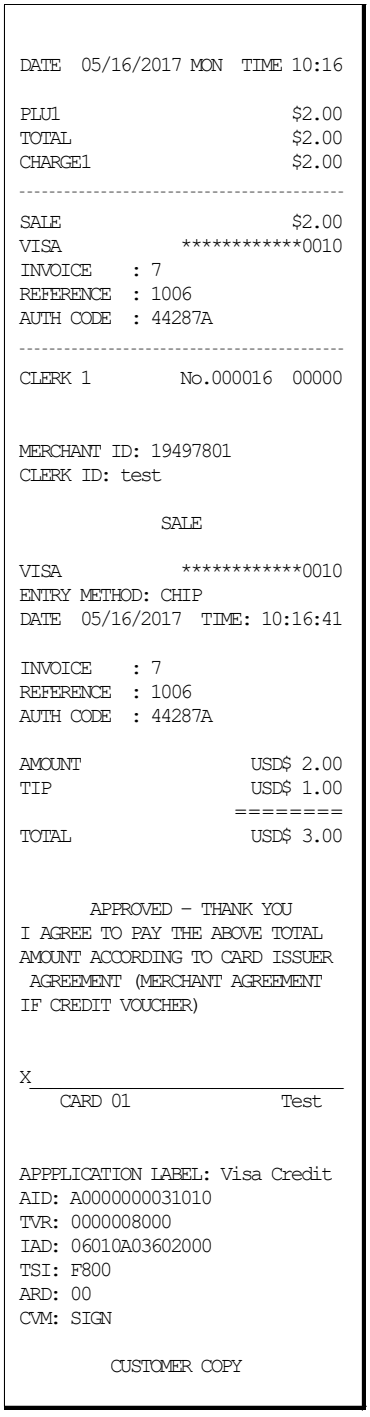
AMOUNT USD$ 2.00
TIP USD$ 1.00
========
TOTAL USD$ 3.00

APPROVED - THANK YOU
I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
AGREEMENT (MERCHANT AGREEMENT
IF CREDIT VOUCHER)

X_____
Card 01 Test

APPPLICATION LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: F800
ARD: 00
CVM: SIGN

MERCHANT COPY



DATE 05/16/2017 MON TIME 10:16

PLU1 $2.00
TOTAL $2.00
CHARGE1 $2.00

SALE $2.00
VISA **********0010
INVOICE : 7
REFERENCE : 1006
AUTH CODE : 44287A

CLERK 1 No.000016 00000

MERCHANT ID: 19497801
CLERK ID: test

SALE

VISA **********0010
ENTRY METHOD: CHIP
DATE 05/16/2017 TIME: 10:16:41

INVOICE : 7
REFERENCE : 1006
AUTH CODE : 44287A

AMOUNT USD$ 2.00
TIP USD$ 1.00
========
TOTAL USD$ 3.00

APPROVED - THANK YOU
I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
AGREEMENT (MERCHANT AGREEMENT
IF CREDIT VOUCHER)

X_____
CARD 01 Test

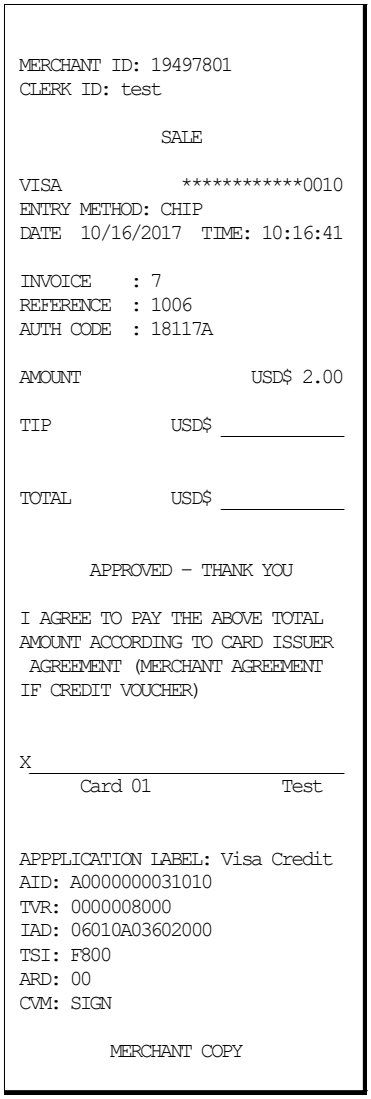
APPPLICATION LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: F800
ARD: 00
CVM: SIGN

CUSTOMER COPY

Sample Credit Transaction Receipt (with Print Tip Only tip)

Charge key **N6** Show tip = Print Tip Line Only **(N6 = 2)**

Merchant and Customer Drafts (with Print Tip Only tip)



MERCHANT ID: 19497801
CLERK ID: test

SALE

VISA **********0010
ENTRY METHOD: CHIP
DATE 10/16/2017 TIME: 10:16:41

INVOICE : 7
REFERENCE : 1006
AUTH CODE : 18117A

AMOUNT USD$ 2.00

TIP USD$ _____

TOTAL USD$ _____

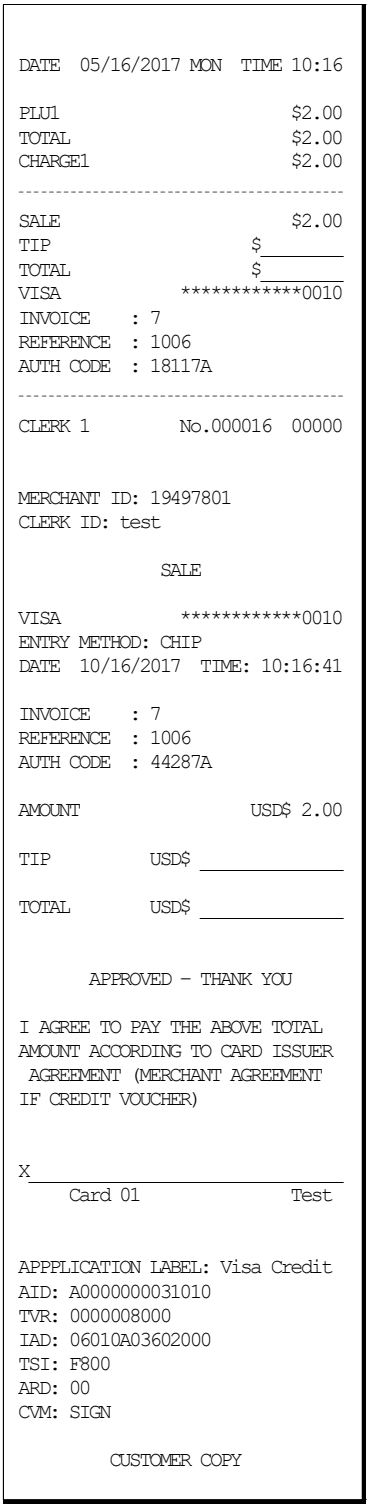
APPROVED – THANK YOU

I AGREE TO PAY THE ABOVE TOTAL AMOUNT ACCORDING TO CARD ISSUER AGREEMENT (MERCHANT AGREEMENT IF CREDIT VOUCHER)

X_____
Card 01 Test

APPPLICATION LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: F800
ARD: 00
CVM: SIGN

MERCHANT COPY



DATE 05/16/2017 MON TIME 10:16

PLU1 $2.00
TOTAL $2.00
CHARGE1 $2.00

SALE $2.00
TIP $_____
TOTAL $_____
VISA **********0010
INVOICE : 7
REFERENCE : 1006
AUTH CODE : 18117A

CLERK 1 No.000016 00000

MERCHANT ID: 19497801
CLERK ID: test

SALE

VISA **********0010
ENTRY METHOD: CHIP
DATE 10/16/2017 TIME: 10:16:41

INVOICE : 7
REFERENCE : 1006
AUTH CODE : 44287A

AMOUNT USD$ 2.00

TIP USD$ _____

TOTAL USD$ _____

APPROVED – THANK YOU

I AGREE TO PAY THE ABOVE TOTAL AMOUNT ACCORDING TO CARD ISSUER AGREEMENT (MERCHANT AGREEMENT IF CREDIT VOUCHER)

X_____
Card 01 Test

APPPLICATION LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: F800
ARD: 00
CVM: SIGN

CUSTOMER COPY

Manual Card Entry

If a credit card is not able to be read, we can manually enter the card information. Manual card entry is allowed on Credit, Gift and EBT transactions if the reader is unable to read the card or for card not present sales.

PIN Debit payments must be processed as card-present transactions – the 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.

1. Register a normal transaction. Press the appropriate **CHARGE** key. The message "WAITING FOR EFT" displays.
2. If the card will not read: At the PIN-Pad, press the **RED** button.
3. At the ECR press **CLEAR** once. The message "PRESS CASH FOR MANUAL ENTRY" displays.
4. At the ECR, press **CASH** and go to the PIN-Pad to complete the sequence of card entries. The Pin-Pad displays the message:

   SALE

   $2.00 – OK?
5. Press the **GREEN** button on the PIN-Pad keypad.
6. The message "ACCOUNT NUMBER" displays. Enter the card number and press the **GREEN** button on the PIN-Pad keypad.
7. The message "ENTER EXPIRY, DATE MMYY" displays. Enter the 4-digit card expiration date in MMYY format and press the **GREEN** button on the PIN-Pad keypad.
8. The message "ENTER CVV" displays. Enter the **CVV** (card verification value as shown on the reverse of the card) and press the **GREEN** button on the PIN-Pad keypad.
9. The message "ZIP CODE" displays. Enter the **5-digit zip code** of the card holder and press the GREEN button on the PIN-Pad keypad.
10. The message "CHIP CARD YES=OK?" displays. If the card is a chip card, press the **GREEN** button on the PIN-Pad keypad; if the card is not a chip card, press the **RED** button.
11. When verification is complete, the PIN-Pad displays "APPROVED" and the draft is printed at the ECR.
12. If multiple documents are to be printed, the message "PRESS CASH TO CONTINUE" displays. Tear off the printer paper and press **CASH** to resume printing.

Debit Transaction

1. Register a normal transaction.
2. Touch the charge key set for **DEBIT**. At the register, the message **"WORKING"** displays:
3. After several seconds, the PIN-Pad displays the message:

   SALE
   $2.00 OK?
4. Press the **GREEN** button on the PIN-Pad keypad.
   Pressing the RED button will CANCEL the operation.
5. Insert the EMV card into the PIN-Pad. The PIN-Pad will display **"PLEASE WAIT"**, then **"DO NOT REMOVE CARD"**, and then **"ENTER PIN & OK"**.
6. At the PIN-Pad, **enter the 4-digit PIN** and press the **GREEN** button.
7. The PIN-Pad will display **"DO NOT REMOVE CARD"** and then **"PROCESSING"**.
8. When the processing is complete, the **"APPROVED"** message will display.
9. Remove the card from the PIN-Pad.
10. At the register, the receipt and card draft are printed.

Manual Debit Card Entry Notes:

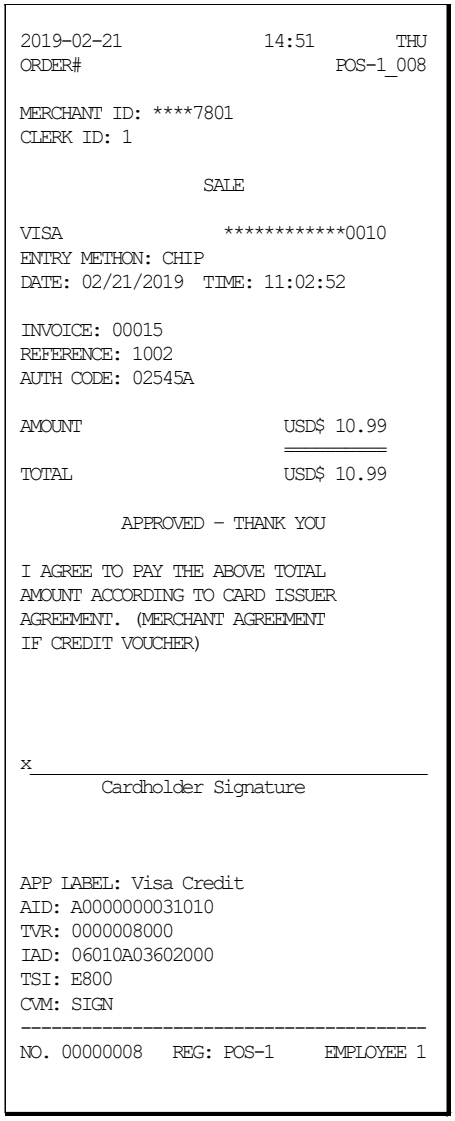
Typically, Debit Cards are set up to require a PIN number entry and are not able to be entered manually. However, Visa or MasterCard branded Debit cards used for PIN Debit may also be used like credit cards with just a signature.

- If a **DEBIT CARD** presented for a PIN Debit transaction fails to read, when the CARD ERROR message appears, press **CLEAR**. You can now choose an alternative payment method.
- Press the **CREDIT** function key. 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.

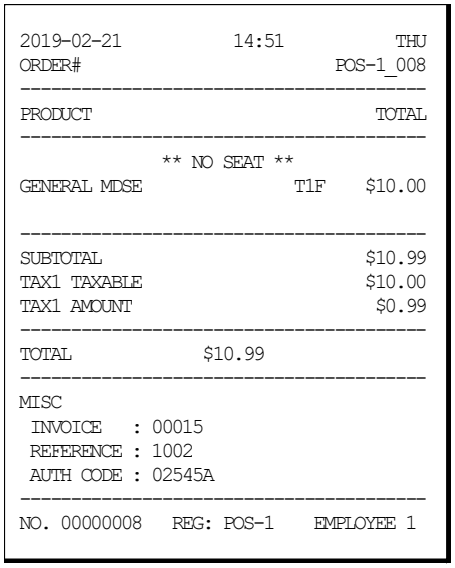
****Note:** The option to require ***CCV*** number or ***Zip Code*** entry are set by the processor. Your installation may not require this entry.

To allow Manual Entry for Debit Cards without a PIN Entry, the IPTran-LT option setting to require a signature for all transactions must be checked. This allows Debit Cards to process as Credit Cards. A Debit Card that is manually entered is always processed as credit.

Sample Merchant and Customer Drafts (without tip)

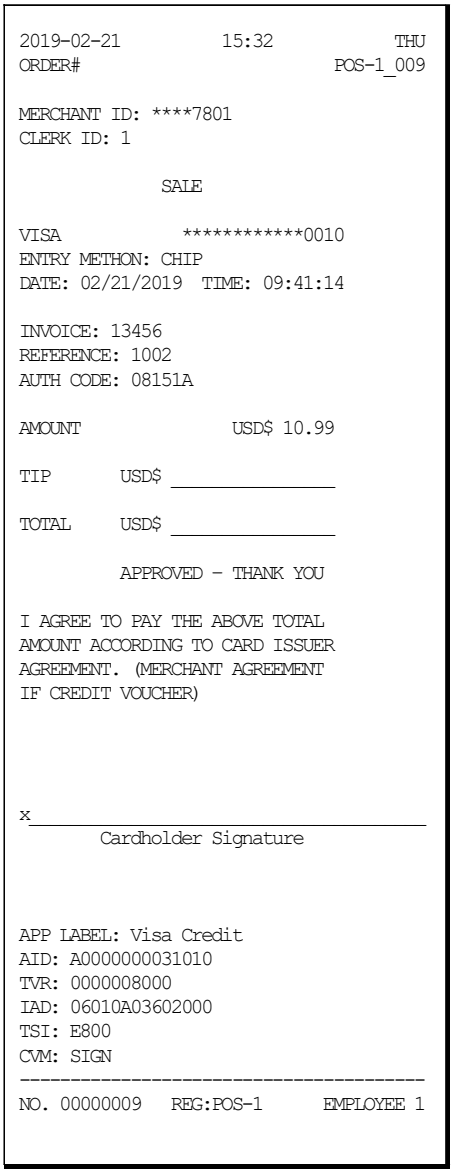


```
2019-02-21              14:51        THU
ORDER#                             POS-1_008

MERCHANT ID: ****7801
CLERK ID: 1

                  SALE

VISA                ************0010
ENTRY METHON: CHIP
DATE: 02/21/2019  TIME: 11:02:52

INVOICE: 00015
REFERENCE: 1002
AUTH CODE: 02545A

AMOUNT                      USD$ 10.99
                            ==========
TOTAL                       USD$ 10.99

          APPROVED - THANK YOU

I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
AGREEMENT. (MERCHANT AGREEMENT
IF CREDIT VOUCHER)



x_____________________________________
        Cardholder Signature


APP LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: E800
CVM: SIGN
----------------------------------------
NO. 00000008   REG: POS-1     EMPLOYEE 1
```



```
2019-02-21           14:51           THU
ORDER#                             POS-1_008
----------------------------------------
PRODUCT                              TOTAL
----------------------------------------
              ** NO SEAT **
GENERAL MDSE                 T1F    $10.00

----------------------------------------
SUBTOTAL                            $10.99
TAX1 TAXABLE                        $10.00
TAX1 AMOUNT                          $0.99
----------------------------------------
TOTAL             $10.99
----------------------------------------
MISC
 INVOICE   : 00015
 REFERENCE : 1002
 AUTH CODE : 02545A
----------------------------------------
NO. 00000008   REG: POS-1    EMPLOYEE 1
```

Sample Merchant and Customer Drafts (with tip)



2019-02-21 15:32 THU
ORDER# POS-1_009

MERCHANT ID: ****7801
CLERK ID: 1

SALE

VISA **********0010
ENTRY METHON: CHIP
DATE: 02/21/2019 TIME: 09:41:14

INVOICE: 13456
REFERENCE: 1002
AUTH CODE: 08151A

AMOUNT USD$ 10.99

TIP USD$ _____

TOTAL USD$ _____

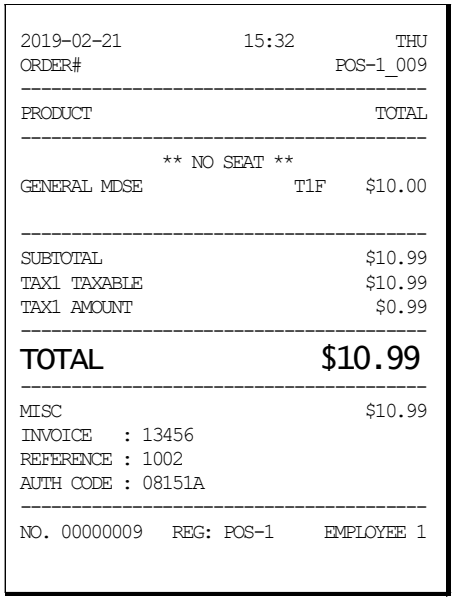
APPROVED - THANK YOU

I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
AGREEMENT. (MERCHANT AGREEMENT
IF CREDIT VOUCHER)

x_____
Cardholder Signature

APP LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: E800
CVM: SIGN

NO. 00000009 REG:POS-1 EMPLOYEE 1



2019-02-21 15:32 THU
ORDER# POS-1_009

PRODUCT TOTAL

** NO SEAT **
GENERAL MDSE T1F $10.00

SUBTOTAL $10.99
TAX1 TAXABLE $10.99
TAX1 AMOUNT $0.99

TOTAL $10.99

MISC $10.99
INVOICE : 13456
REFERENCE : 1002
AUTH CODE : 08151A

NO. 00000009 REG: POS-1 EMPLOYEE 1

Selling Gift Cards

If you are using integrated Gift Card with the Datacap equipment, to activate a new gift card or add value to an already active gift card, follow the procedure below. With EMV enabled Datacap equipment, only one PLU and Group is used for gift card activation and adding value to an already active gift card.

For Gift Card Sales, you will need a PLU setup for Selling Gift Cards. The Gift Card PLU must be assigned to a specific Group for Gift Card Sale with the option: **GIFT CARD = [ADD]**

- See Group Programming on page 231 for details.
- See PLU Programming on page 155 for details.

1. Register the amount to be loaded on to the gift card (to Add or Activate) into a PLU linked to a unique Group with the Gift Card option set as Add.
2. Immediately after the PLU is registered, the message "WAITING FOR EFT" displays on the ECR.
3. At the PIN-Pad the message "PLEASE WAIT' displays briefly then:

   REFUND
   $10.00 OK?
4. Press the GREEN button on the PIN-Pad keypad to accept the amount.
5. The Pin-Pad will then prompt to "TAP or SWIPE". At the Pin-Pad, Swipe, Tap, or insert thee gift card to be loaded with the amount. The PIN-Pad will display "PLEASE WAIT" briefly, then "PROCESSING".
6. When the processing is complete, the "APPROVED" message will display.
7. Tender the transaction with the appropriate CASH, CHECK, or CHARGE tender key.

Get Gift Card Balance

If you are using integrated Gift Card with the Datacap equipment, you can get the current gift card balance at the ECR.

In the **REG Mode**, Outside of a sale, Press the **Gift Tender** Key. You will be prompted to swipe the card.

Swipe the Gift Card, the balance will print to the receipt.

Gift Card Notes:

Support for partial authorizations is a card brand mandate which eases acceptance of major card branded open loop gift cards by allowing their remaining to be depleted without a decline and call to the issuer to find out what the balance is. Merchants who opt not to support partial authorizations may be charged fees/fines for not doing so.

Because of the above, we document support for partial authorizations as being a requirement for EMV interfaces. It is however still possible to send a request where partial auth support is not indicated and this would be honored by most processors with TSYS Summit being the big exception. If you do not indicate support for partials to TSYS you will get an error.

EBT (Food Stamp) Transaction

When integrated EBT is utilized, tendering a sale using the Food Stamp Tender key set to Connect To EFT requires entry of the PIN number.

1. Register a normal transaction.
2. Pres the **F/S SBTL** key to get the total of food stamp items.
3. Enter the F/S SBTL amount and press the **F/S TEND** key.
   At the register, the message **"WORKING"** displays:
4. At the PIN-Pad the message displays:

   SALE

   $2.00 – OK?
5. Press the **GREEN** button on the PIN-Pad keypad.
6. Swipe the EBT card at the PIN-Pad. The PIN-Pad will display **"PLEASE WAIT"**, then **"DO NOT REMOVE CARD"**, and then **"ENTER PIN & OK"**.
7. At the PIN-Pad, **enter the 4-digit PIN** and press the **GREEN** button.
8. The PIN-Pad will display **"PROCESSING"**.
9. When the processing is complete, the **"APPROVED"** message will display.
10. At the register, the receipt and card draft are printed.

Notes: ***EBT refunds/returns*** are performed as a ***Merchandise Return*** operation.

EBT balance will print on both the merchant copy and the customer copy of the EBT receipt as received from the Datacap device.

EBT Cash Benefit

The EBT Cash Benefit operation is essentially the same as the F/S tender operation. The main difference being the tender key utilized. ***EBT Cash Benefit uses a Charge Key set for CASH BENEFIT.***

1. Register a normal transaction.
2. Enter the tender amount; Touch the **CASH BENEFIT** key. At the register, the message **"WORKING"** displays:
3. At the PIN-Pad the message displays:

   SALE

   $2.00 – OK?
4. Press the **GREEN** button on the PIN-Pad keypad.
5. At the PIN-Pad, **enter the 4-digit PIN** and press the **GREEN** button.
6. The PIN-Pad will display **"PROCESSING"**.
7. When the processing is complete, the **"APPROVED"** message will display.
8. At the register, the receipt and card draft are printed.

Merchandise Return

The Merchandise Return operation allows an 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.

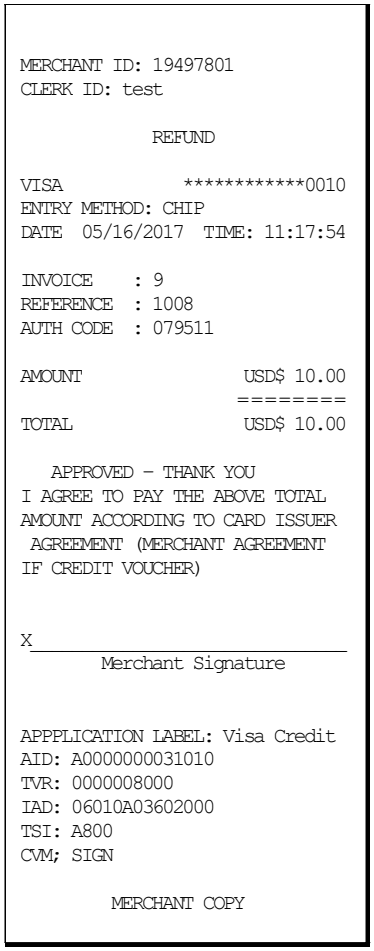
1. Press the **MDSE RTRN** key; Register an item to be returned. Repeat this operation for each item to be returned.
2. Press the appropriate **CHARGE** key. The message 'WAITING FOR EFT" displays:
3. The PIN-Pad displays the message:

   REFUND

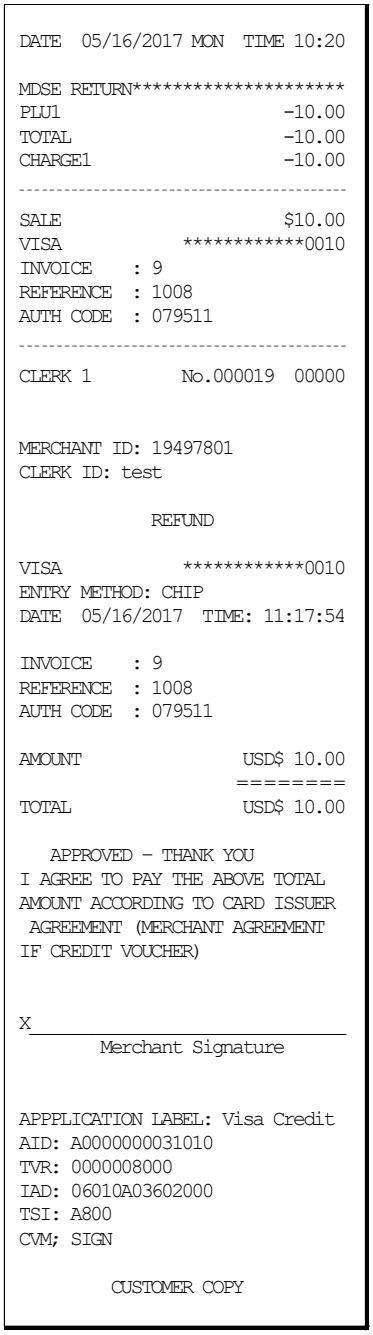
   $10.00 – OK?
4. Press the **GREEN** button on the PIN-Pad keypad.
5. Insert the EMV card into the PIN-Pad. The PIN-Pad will display "PLEASE WAIT", then "DO NOT REMOVE CARD", and then "PROCESSING". When Complete, the "APPROVED" message will display.
6. Remove the card from the PIN-Pad.
7. At the register, the message "PRESS CASH TO CONTINUE" will display.
8. Press **CASH**. The receipt and card draft are printed.
9. If multiple documents are to be printed, the message "PRESS CASH TO CONTINUE" displays. Tear off the printer paper and press **CASH** to resume printing.

Sample Merchandise Return Receipt

Merchant and Customer Drafts (with tip)



```
MERCHANT ID: 19497801
CLERK ID: test

            REFUND

VISA            ************0010
ENTRY METHOD: CHIP
DATE  05/16/2017  TIME: 11:17:54

INVOICE    : 9
REFERENCE  : 1008
AUTH CODE  : 079511

AMOUNT                USD$ 10.00
                      ========
TOTAL                 USD$ 10.00

   APPROVED - THANK YOU
I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
 AGREEMENT (MERCHANT AGREEMENT
IF CREDIT VOUCHER)


X_____________________________
        Merchant Signature


APPPLICATION LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: A800
CVM; SIGN

        MERCHANT COPY
```



```
DATE  05/16/2017 MON  TIME 10:20

MDSE RETURN**********************
PLU1                        -10.00
TOTAL                       -10.00
CHARGE1                     -10.00
----------------------------------------
SALE                         $10.00
VISA            ************0010
INVOICE    : 9
REFERENCE  : 1008
AUTH CODE  : 079511
----------------------------------------
CLERK 1         No.000019  00000


MERCHANT ID: 19497801
CLERK ID: test

            REFUND

VISA            ************0010
ENTRY METHOD: CHIP
DATE  05/16/2017  TIME: 11:17:54

INVOICE    : 9
REFERENCE  : 1008
AUTH CODE  : 079511

AMOUNT                USD$ 10.00
                      ========
TOTAL                 USD$ 10.00

   APPROVED - THANK YOU
I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
 AGREEMENT (MERCHANT AGREEMENT
IF CREDIT VOUCHER)


X_____________________________
        Merchant Signature


APPPLICATION LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: A800
CVM; SIGN

        CUSTOMER COPY
```

Void Transaction

Transaction Void allows a transaction to be removed from the current batch and not be reported to the cardholder statement. This operation also updates the report totals on the register.

1. Turn the Mode Switch to the **VOID** position.
2. Register the transaction to be voided; Press the appropriate **CHARGE** key. The message "ENTER INVOICE NUMBER" displays.
3. Enter the **Invoice Number** printed for the transaction to be voided, press **CASH**. The message "ORIG TRAN AMOUNT" displays:
4. Enter the total of the **Original Transaction Amount** of the transaction being voided, press **CASH**. The message: "WAITING FOR EFT" will display on the ECR. The "Void Sale" amount confirmation message will display on the PIN-Pad:

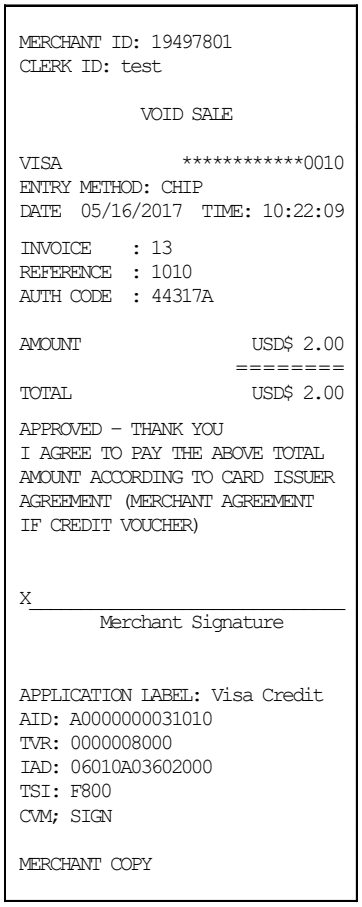
   VOID SALE

   $1.00 – OK?

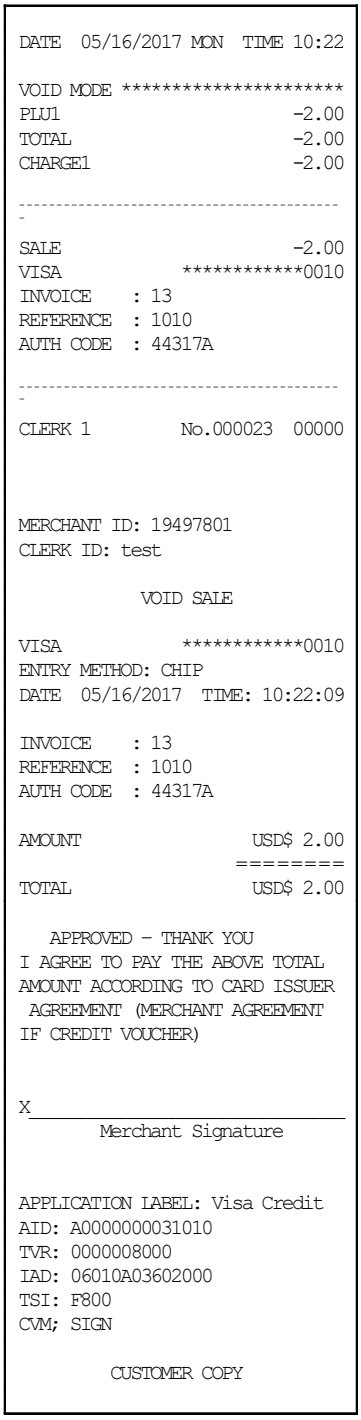
5. Press the **GREEN** button on the PIN-Pad keypad to accept. The Pin-Pad will display "PLEASE WAIT" briefly then "TAP, INSERT or SWIPE". *(Pressing the RED button will CANCEL the operation.)*
6. Insert the original card used when purchased into the PIN-Pad. The PIN-Pad will display "PROCESSING". When Complete, the "APPROVED" message will display.
7. Remove the card from the PIN-Pad.
8. At the register, the message "PRESS CASH TO CONTINUE" will display.
9. Press **CASH**. The receipt and card draft are printed.
10. If multiple documents are to be printed, the message "PRESS CASH TO CONTINUE" displays. Tear off the printer paper and press **CASH** to resume printing.

Sample Void Transaction Receipt (without tip)

Merchant and Customer Drafts (with tip)



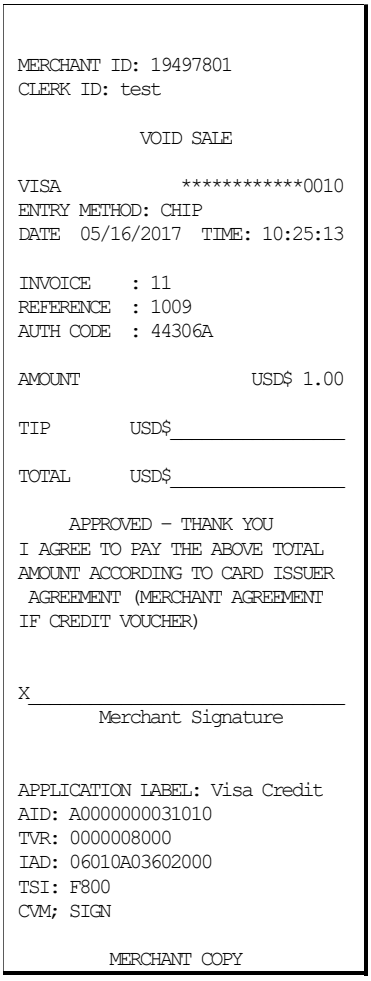
```
MERCHANT ID: 19497801
CLERK ID: test

          VOID SALE

VISA           ************0010
ENTRY METHOD: CHIP
DATE  05/16/2017  TIME: 10:22:09

INVOICE    : 13
REFERENCE  : 1010
AUTH CODE  : 44317A

AMOUNT                USD$ 2.00
                     ========
TOTAL                 USD$ 2.00

APPROVED - THANK YOU
I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
AGREEMENT (MERCHANT AGREEMENT
IF CREDIT VOUCHER)


X_____________________________
       Merchant Signature


APPLICATION LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: F800
CVM; SIGN

MERCHANT COPY
```



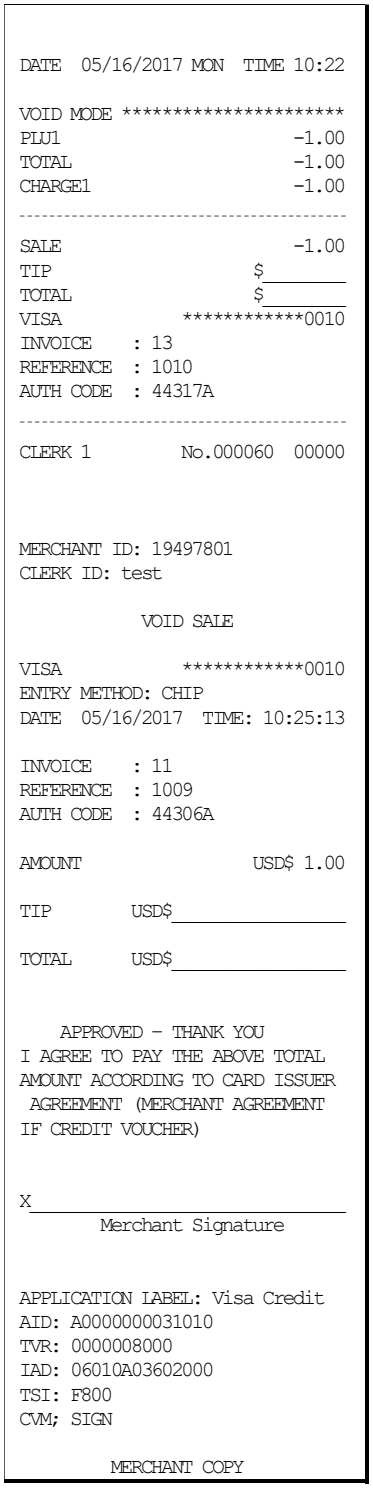
```
DATE  05/16/2017 MON  TIME 10:22

VOID MODE **********************
PLU1                        -2.00
TOTAL                       -2.00
CHARGE1                     -2.00

----------------------------------------
-
SALE                        -2.00
VISA           ************0010
INVOICE    : 13
REFERENCE  : 1010
AUTH CODE  : 44317A

----------------------------------------
-
CLERK 1         No.000023  00000



MERCHANT ID: 19497801
CLERK ID: test

          VOID SALE

VISA           ************0010
ENTRY METHOD: CHIP
DATE  05/16/2017  TIME: 10:22:09

INVOICE    : 13
REFERENCE  : 1010
AUTH CODE  : 44317A

AMOUNT                USD$ 2.00
                     ========
TOTAL                 USD$ 2.00

   APPROVED - THANK YOU
I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
 AGREEMENT (MERCHANT AGREEMENT
IF CREDIT VOUCHER)


X_____________________________
       Merchant Signature


APPLICATION LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: F800
CVM; SIGN

        CUSTOMER COPY
```

Sample Void Transaction Receipt (with tip)

Merchant and Customer Drafts (with tip)



```
MERCHANT ID: 19497801
CLERK ID: test

          VOID SALE

VISA           ***********0010
ENTRY METHOD: CHIP
DATE  05/16/2017  TIME: 10:25:13

INVOICE    : 11
REFERENCE  : 1009
AUTH CODE  : 44306A

AMOUNT                USD$ 1.00

TIP        USD$_________________

TOTAL      USD$_________________

     APPROVED - THANK YOU
I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
 AGREEMENT (MERCHANT AGREEMENT
IF CREDIT VOUCHER)


X_____________________________
        Merchant Signature


APPLICATION LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: F800
CVM; SIGN

         MERCHANT COPY
```



```
DATE  05/16/2017 MON  TIME 10:22

VOID MODE **********************
PLU1                        -1.00
TOTAL                       -1.00
CHARGE1                     -1.00
----------------------------------
SALE                        -1.00
TIP                        $_____
TOTAL                      $_____
VISA           ***********0010
INVOICE    : 13
REFERENCE  : 1010
AUTH CODE  : 44317A
----------------------------------
CLERK 1         No.000060  00000



MERCHANT ID: 19497801
CLERK ID: test

          VOID SALE

VISA           ***********0010
ENTRY METHOD: CHIP
DATE  05/16/2017  TIME: 10:25:13

INVOICE    : 11
REFERENCE  : 1009
AUTH CODE  : 44306A

AMOUNT                USD$ 1.00

TIP        USD$_________________

TOTAL      USD$_________________


    APPROVED - THANK YOU
I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
 AGREEMENT (MERCHANT AGREEMENT
IF CREDIT VOUCHER)


X_____________________________
        Merchant Signature


APPLICATION LABEL: Visa Credit
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: F800
CVM; SIGN

         MERCHANT COPY
```

Cancel EFT

Once the CC tender is selected you cannot immediately press Cancel at ECR. You would need to accept the amount on Pin-Pad first, then you should be able to press RED button to cancel at Pin-pad. (Only if the processor allows.)

1. Register a normal transaction. Press the appropriate **CHARGE** key. The message "WAITING FOR EFT" displays.
2. At the PIN-Pad the 'SALE Amount' confirmation message displays:

   SALE

   $2.00 – OK?
3. You need to accept this transaction amount. When the prompt to Tap \ Insert \ Swipe displays Press the **RED** button on the PIN-Pad keypad to **CANCEL** the operation.
4. Press **CLEAR** on the ECR; at the "PRESS CASH FOR MANUAL ENTRY" prompt; press **CLEAR** again. After a pause the original transaction is displayed.
5. Press **CANCEL** to cancel the sale or, if a partial tender has already been entered, complete the sale with other tender.

Note: You can select to Disable Amount Confirmation in System Option Programming.

Tip (Gratuity) Entry

TIPs can be entered after the sale using the DATATRAN TIP function key or at the time of sale on the Pin-Pad if the Charge key is set to SHOW TIP ON: PINPAD.

The processor must support "By Record" operations *(Tokenization)* to be able to use the Tip (Gratuity) Entry.

- **Tips cannot be edited/added to Debit transactions after the sale.**
- **No TIP entry is allowed for Gift Card transactions. Tips must be entered using a PLU prior to finalization with a *Gift Card*.**
- **When using IPTran LT terminals at each register, tips must be entered at the terminal that the transaction was registered on.**

NOTE: If using Datatran TIP function key (key code 451) for entering Tips in register mode. TIPS are reported on the financial report. If prompt for TIP at the Pin-Pad: Datacap will not edit ECR report.

Datatran TIP

Tip Entry After the Sale

When the Charge key setting SHOW TIP ON = PRINT TIP LINE ONLY, Gratuities (Tip's) indicated by the customer on the payment draft must be entered into the ECR before the batch is closed using the Datatran TIP function key. The Tips entered using the Datatran TIP key replace any previous TIP entry for the same transaction. Option settings for the DATATRAN TIP function key can be found on page 205.

* If the Datatran Tip key is set for Under Manager Control:
  Turn the mode key to the X position (MANAGER MODE).
* If the Datatran Tip key does not require manager control:
  Leave the mode key in the REG position (REGISTER MODE).

1. Turn the Mode Switch to the **REG** position; Press the **Datatran Tip** function key.
   The prompt ENTER INVOICE NUMBER displays:
2. At the ECR, enter the invoice number of the transaction and press **CASH**.
3. The message now displays: "ORIG TRAN AMOUNT".
   Enter the original transaction amount and press **CASH**.
4. The message now displays: "TIP AMOUNT". Enter the tip amount and press **CASH**.
5. The message displays: "WAITING FOR EFT". 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

```
05/10/16      10:41          139
SALE                      $10.00
TIP                        $1.50
VISA            ************0010
INVOICE   : 139
REFERENCE : 1001
AUTH CODE : 43516A

     APPROVED  - THANK YOU
```

If Not Valid, the message: "INV_ITEM_NUM" displays

Prompt At PINPAD

TIP Entry at Time of Sale

Alternately, if the charge key used to tender the sale is set to SHOW TIP ON: PINPAD, the customer is prompted to choose to enter a TIP at the time of the sale.

1. Register a normal transaction. Press the appropriate **CHARGE** key.
   The message "WAITING FOR EFT" displays.
2. At the PIN-Pad the SALE amount confirmation message displays:
   SALE
   $2.00 – OK?
3. Press the **GREEN** button on the PIN-Pad keypad to accept.
   * *Pressing the RED button will CANCEL the operation.*
4. At the PIN-Pad the message "ADD TIP?" displays:
   ADD TIP?
   YES
   NO
5. Select **YES** to add a TIP, the message "ENTER TIP + OK $ 0.00" appears.
6. Enter the **TIP amount** and press the **GREEN** button on the PIN-Pad to accept.
   ENTER TIP + OK
   $ 1.00
7. The sale amount confirmation displays; press the **GREEN** button on the PIN-Pad to accept. The PIN-Pad will display "PLEASE WAIT" briefly then "TAP, INSERT OR SWIPE".
   SALE
   $3.00 – OK?
8. Insert the EMV card into the PIN-Pad. The PIN-Pad will display "PLEASE WAIT", then "DO NOT REMOVE CARD", and then "PROCESSING".
9. When Complete, the message "REMOVE CARD" displays then "APPROVED" message will display.
   REMOVE CARD
   APPROVED
10. The receipt and the customer copy of the EFT draft will print on the ECR. Remove the card from the PIN-Pad. At the register, the message "PRESS CASH TO CONTINUE" will display.
11. Press **CASH**; the merchant copy of the EFT draft for the customer to sign. If multiple documents are to be printed, the message "PRESS CASH TO CONTINUE" displays.
12. Tear off the merchant copy EFT receipt, then press **CASH**.

NOTE: If using Datatran TIP function key (key code 451) for entering Tips in register mode. TIPS are reported on the financial report. If prompt for TIP at the Pin-Pad: Datacap will not edit ECR report.

Reset (Z) Mode Procedures

EMV related Datatran EFT operations *(integrated credit operations)* are performed in the Z-Mode as shown in the Datatran Operations Table; Follow the summary table for details for each of these processes.

Note: ***Many operations in the Datatran EFT Operation menu are not used when EMV is enabled.***

In the Pre-EMV environment Datacap stored some information at the Tran that allowed the registers to run some reports, such as the local transaction report.

In the EMV environment Datacap is no longer storing information at the Tran so there are no reports available.

On the ER-900E we are storing some information on the approvals on the SD card in the register (EMVBACK.txt file). This is required to be able to perform *"By Record"* transactions.

Important! ***Absolutely No credit card or customer information is stored at the ECR.***

Currently, if a Local Transaction Report is run, we print the information from the approvals, however this data should only be used for troubleshooting and should not be relied upon as accurate.

For example, if you perform a sale for $1.00 and then perform a Void by Record Number of the same transaction, you will have two transactions. The register is only printing the information from the approvals.

EMV-Datatran EFT Operations Table

Operations available for Non-EMV integrated credit and EMV integrated credit are listed below.

Procedure	Operation	Definition
Z-Mode: Enter **500** press **SBTL**	**Initialize EFT**	Use this function to check the connection and initialize the Datatran EFT device. The IPTran LT software version will print at the register.
Z-Mode: Enter **502** press **SBTL**	**Close Current Batch**	Typical EMV processing is setup to Auto-Batch. You can use this operation to manually close the current batch. When closed a new batch is automatically opened.
Z-Mode: Enter **507** press **SBTL**	Issue Batch Status	Prints the current batch status.
Z-Mode: Enter **508** press **SBTL**	Dial In Load	When connected to the internet, the Datacap device will automatically receive any new software\load from the server by turning off and turning on the Datacap device. In older Equipment (before the IPTran-LT had the 'call home' feature) the "Dial In Load" procedure was used to manually load the parameters as explained on page 278 in this guide.
Z-Mode: Enter **513** press **SBTL**	Datatran Diagnostics	Use with Datacap Support, if necessary to troubleshoot Datatran issues.
Z-Mode**: Enter **516** press **SBTL	EBT Voucher	Manually enter EBT transactions.
Z-Mode: Enter **517** press **SBTL**	**EMV Parameter Download**	Used only with EMV integrated credit. This operation tells the Pin-Pad to get new parameters from Datacap.
Z-Mode: Enter **518** press **SBTL**	Void Sale By Record Number	Use these operations to void transactions when the card is not present. CAUTION: These voids will not correct ECR sales totals (i.e. PLU sales) but will maintain a total on the Financial Report. Use the void mode operation at the ECR to perform transaction voids that will correct the appropriate ECR sales totals.
Z-Mode: Enter **519** press **SBTL**	Void Return By Record Number	
Z-Mode: Enter **520** press **SBTL**	Voice Authorization	Use this operation with EMV applications to Enter a transaction authorized via phone/voice.
Z-Mode: Enter **521** press **SBTL**	Adjust (TIP) By Record Number	Adjusts/corrects the current TIP entry for a transaction in the current batch.
Z-Mode: Enter **522** press **SBTL**	Zero Authorization	Use this operation to verify if a credit card is active or not reported as stolen.
Z-Mode: Enter **523** press **SBTL**	**Clear SD EMV File**	Used only with EMV integrated credit. Deletes the EMVBACK.txt File (token file) stored on the SD Card. *(This operation should be ran Daily.)*

*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.

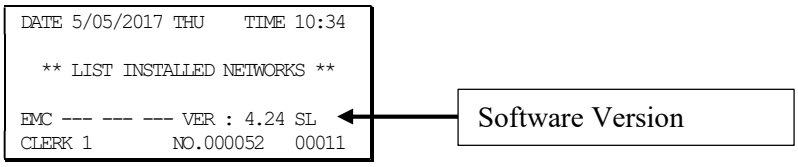
Datatran EFT Operations

Initialize EFT

Z-Mode: Enter **500**, press **SBTL**

Select Initialize EFT to verify communications and software version.

1. Turn the Mode Switch to the **Z** position.
2. Enter **500**, press **SBTL**.
3. The message "WAITING FOR EFT." displays momentarily.
4. After a pause, the register will print "LIST INSTALLED NETWORKS". This is the verification that the connection from the ECR to the Datacap device is good.



Close Current Batch

Z-Mode: Enter **502**, press **SBTL**

You must close the batch daily as this procedure clears the EMV file stored on the SD card. (If the processor performs an 'Auto Batch" you will need to perform the 'Delete SD EMV File' operation.

NOTE: With EMV enabled applications, after a batch is closed a new batch is opened automatically for the next day.

1. Turn the Mode Switch to the **Z** position.
2. Enter **502**, press **SBTL**.
3. The message "WAITING FOR EFT" displays momentarily.
4. When communication is complete, the "Local Batch Status" report prints; then the "Close Current Batch" report is printed.
5. The batch is closed and a new batch is automatically opened.

Local Batch Status

Close Batch Receipt

```
DATE 05/16/2017 MON   TIME 10:29

  **** LOCAL BATCH STATUS ****

BATCH STATUS    :           OPEN
BATCH NUMBER    :           0080
TRANSACTION CNT :              7
ITEM COUNT      :              7
BALANCE AMNT    :          16.00
FWD ITEM COUNT  :              *
FWD BALANCE AMNT:              *

CLERK 1            000065  00000




DATE 5/05/2017 THU    TIME 10:34

  *** CLOSE CURRENT BATCH ***

BATCH NUMBER    :           0080
NET AMNT SETTLED:          16.00
ITEM COUNT      :              7

 BATCH WAS CLOSED SUCCESSFULLY
CLERK 1            000097  00000
```

Issue Batch Status

Z-Mode: Enter **507**, press **SBTL**

The Local Batch Status Report also prints when a batch is closed.

```
DATE 05/16/2017 MON   TIME 10:29

  **** LOCAL BATCH STATUS ****

BATCH STATUS    :          OPEN
BATCH NUMBER    :          0024
TRANSACTION CNT :             7
ITEM COUNT      :             7
BALANCE AMNT    :         16.00
FWD ITEM COUNT  :             *
FWD BALANCE AMNT:             *

CLERK 1           000065  00000
```

Dial In Load

Z-Mode: Enter **508**, press **SBTL**

When connected to the internet, the Datacap device will automatically receive any new software\load from the server by turning off and turning on the Datacap device.

In older Equipment *(before the IPTran-LT had the 'call home' feature)* the ***"Dial In Load"*** procedure was used to manually load the parameters.

1. Turn the Mode Switch to the **Z-Mode**: Enter **508**, press **SBTL**.
2. The message: "ENTER DEVICE ID" displays.
3. Enter the 6-digit serial number of the IP Tran or PDC. The device will call Datacap's host PC and load itself. This takes approximately 20 seconds.
    - During the load the register will display: "WAITING FOR EFT".
4. When complete the message: "LOAD SUCCESS" will display and print. The Datacap device load is complete.

After the Datacap device is loaded, you must load the PIN-Pad parameters; From the **Z-Mode**: Enter **517**, press **SBTL**. See the "Parameter Download" on page 280 for details. This operation tells the Pin-Pad to get new parameters from Datacap.

Datatran Diagnostics

Z-Mode: Enter **513**, press **SBTL**

Work with Datacap Support, if necessary, to troubleshoot Datatran issues.

1. Turn the Mode Switch to the **Z-Mode**: Enter **513**, press **SBTL**.
2. The message "DIAG NUMBER" will display.
3. Press the **0** key and then **CASH** to print a list of diagnostic options:

```
DATE 5/05/2017 THU    TIME 10:34

 *** DATATRAN SELF TESTS ***

1 - IPTRAN VERSION
4 - CREDIT MID SETTINGS
10- IP ADDRESS
11- DNS TEST
15- PARAM LOAD
40- EEPROM DATA
41- RESET SEQUENCE NUMBER

CLERK 1            000096  00000
```

4. Reselect the Diagnostic option. The message "DIAG NUMBER" will again display.
5. Enter the number of the diagnostic test you wish to perform and press **CASH**. The report will print.

EBT Voucher

Z-Mode: Enter **516**, press **SBTL**

When the EBT/Tran equipment is not able to connect to the processing center and the customer is not able to process EBT via the integrated system they will use this operation to manually enter the EBT transaction.

The customer would need to call the processing center to get an approval for the transaction.

1. Turn the Mode Switch to **Z-Mode**: Enter **516**, press **SBTL.**
2. At the prompt, Enter Amount on ECR and press **CASH**. (i.e. 500 CASH)
3. Enter the Auth. Code; enter the code on the ECR and press **CASH**.
4. Enter Voucher Number; enter the voucher number at the ECR and press **CASH**.
5. The PIN-Pad will display $5.00 OK? Press the **GREEN** button to confirm.
6. At the prompt: Tap, or Swipe the Card, insert the chip card into the Pin-Pad.

Note: When entering the Auth. Code, the keyboard overlay can be used if your ECR has the flat keyboard. For Raised keyboards use the alpha code entry method.

Parameter Download

Z-Mode: Enter **517**, press **SBTL**

This operation tells the Pin-Pad to get new parameters from Datacap.

1. With the Datacap Device connected to the register and an active Ethernet line turn the Mode Switch to the **Z-Mode**: Enter **517**, press **SBTL**.
2. At the register, the message: "WAITING FOR EFT" displays. On the PIN-Pad, the message "LOADING" displays.
3. When the load has completed the message: "LOAD SUCCESS" will display and print. The PIN-Pad will initialize.
4. At the register, press **CLEAR** to complete the procedure.

Void Sale By Record Number

Z-Mode: Enter **518**, press **SBTL**

The processor must allow "By Record" operations *(Enable Tokenization)* for Void by Record Number operations. You can void (remove from current batch) any sales transaction that resides in the current batch. Note that this operation does not adjust any other cash register totals or counters.

Note: This operation does not adjust any other cash register financial totals or counters.

1. From the **Z-Mode**: Enter **518**, press **SBTL.**
2. At the prompt window, enter the original transaction amount, press **CASH**.
3. Enter the invoice number, press **CASH**.
4. The Message "WAITING FOR EFT" displays. When the "COMPLETED" message displays press **CLEAR** to complete the procedure.

Void Return By Record Number

Z-Mode: Enter **519**, press **SBTL**

The processor must allow "By Record" operations *(Enable Tokenization)* for Void by Record Number operations.

You can void (remove from current batch) any sales transaction that resides in the current batch. Note that this operation does not adjust any other cash register totals or counters.

Note: This operation does not adjust any other cash register financial totals or counters.

1. From **Z-Mode**: Enter **519**, press **SBTL.**
2. Enter the original transaction amount, press **CASH**.
3. Enter the record number, press **CASH**.
4. The Message "WAITING FOR EFT" displays. When the "COMPLETED" message displays press **CLEAR**.

Voice Authorization

Z-Mode: Enter **520**, press **SBTL**

If electronic authorization is not approved and the merchant receives voice authorization, the transaction can be entered into the batch with this operation. Note that this operation does not adjust any other cash register totals or counters.

1. From **Z-Mode**: Enter **520**, 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.

Adjust (TIP) By Record Number

Z-Mode: Enter **521**, press **SBTL.**

Use this operation to adjusts/correct the current TIP entry for a transaction in the current batch.

Note: The system option 39 "EFT DRAFT IS" must be set for "FINE DINING" for this operation.

1. From **Z-Mode**: Enter **521**, press **SBTL.**
2. The prompt: "ENT INVOICE NUM." displays; enter the invoice number of the transaction and press **CASH**.
3. When the prompt "ORIG TRAN AMOUNT" displays, enter the original transaction amount, press **CASH**.
4. Enter the record number, press **CASH**.
5. The Message "WAITING FOR EFT" displays. When the "COMPLETED" message displays touch **CLOSE**.

Zero Authorization

Z-Mode: Enter **522**, press **SBTL.**

Use this operation to verify if a credit card is active or not reported as stolen. To use this feature, you must have a charge key setup to connect to the EFT and type set for credit. You must also have an SD card installed.

1. From **Z-Mode**: Enter **522**, press **SBTL**.
2. Register displays "PRESS CHARGE KEY", press the **CREDIT** card tender key.
   ECR displays "WAITING FOR EFT".
3. Insert card into PIN-Pad reader.
4. When verification is complete, a receipt will print on ECR.

Example Verification

```
VERIFY CARD

VISA            ************0010
ENTRY METHOD: CHIP
DATE: 09/13/2017  TIME: 09:08:51

INVOICE: 7
REFERENCE: 7
AUTH CODE: 09855A

AMOUNT                 USD$ 0.00
                       = = = = =
TOTAL                  USD$ 0.00

APPROVED - THANK YOU
I AGREE TO PAY THE ABOVE TOTAL
AMOUNT ACCORDING TO CARD ISSUER
AGREEMENT (MERCHANT AGREEMENT IF
CREDIT VOUCHER)


X_____________________________

  CARD 01              TEST


APPLICATION LABEL: VISA CREDIT
AID: A0000000031010
TVR: 0000008000
IAD: 06010A03602000
TSI: F800
ARC: 00
CVM: SIGN
```

Delete SD EMV File

Z-Mode: Enter **523**, press **SBTL.**

Use this operation to clear the EMVBACK.txt file saved on the SD Card in the:

SD Card > F:\ER900\EMVBACK.txt

This is the internally stored data file that stores the Authorization Response messages that allows "By Record Number" transactions. Specifically, the 'Void Transaction by Record Number' and 'Gratuity Entry'.

This file should be cleared each day as we have a limited amount of space to hold the file and most likely, "By Record Transactions" will take place on the same day as the original transaction. The EMV File is cleared automatically when the CLOSE CURRENT BATCH command is performed. Some sites are set to Auto Batch and some processors only allow Auto Batch. If Auto Batch is utilized, this operation should be executed every day.

1. From **Z-Mode**: Enter **523**, press **SBTL**.
2. Register displays "SUCCESS".

Clear Current Batch

S-Mode: Enter **5 0 3**, press **SBTL**

Warning! This operation cannot be undone and should only be performed under the direction of DATACAP.

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.

1. From the **S-Mode**: Enter **5 0 3**, press **SBTL**.

Glossary Of Terms

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 ensure that all cash is deposited, regardless of any 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 be 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 *(Transaction Number)*. 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 that is installed on the ER-900E Series. The register has a default program which makes it operational after a memory all clear is performed. Nearly all option, rate, and status programs are set to zero as the default condition.

Department

The ER-900E Series uses price lookups (PLUs) to perform the function of traditional cash register departments. PLUs 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-915E 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-900E 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 dependable. 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-900E 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-900E 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 registered 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 applied using a mix and match discount. The default ER-900E 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-900E 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.

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. PLUs can be programmed with a preset or open price. PLUs 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-900E 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 register or to record loans to the cash drawer.

Register Number

The number of the register (Machine Number) 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 to an activity counter. 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. 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 or Computation by Table

When 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). 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

A sequential number is printed on each receipt issued *(Consecutive Number)*. This is not a "customer count" as this number is incremented for non-sales activity such as no-sales and reports. The number of revenue generating transactions (true customer count) is printed with the Net Sales total on the financial report..

VAT

Value-Added Tax (VAT) is a tax collection system where a portion of the item's sale price is the 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" reports *(e**X**amine)* reads the reports without resetting and **"Z"** reports *(**Z**ero out)* read and reset your sales totals.

Manual Revision Record

Edition	Date Published	Revision Contents
v1.0	9-09-2011	Initial Printing
v1.1	9-19-2011	Corrected Function Key Descriptor Programming
v1.2	10-07-2011	Clarified bitmap copy from register to SD procedure. Updated ECR model photos.
v1.3	10/11/2011	Corrected: scale options; Drawer assignment options; Financial report descriptor table; sample reports.
v1.4	11/15/2011	Initial Clear on all models can be done by power up with SBTL key pressed. Updates now refer to Flash ROM rather than EPROM. Memory All Clear function clarified for raised-key models.
v1.5	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.
v1.6	12/28/2011	Programmability of Feed & Journal Feed keys clarified. Clarified Flash ROM Update by PC Instructions.
v1.7	1/11/2012	Foreign Language descriptor system option #35 corrected: A value of 2=French descriptors.
v1.8	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.)
v1.9	1/30/2012	Flash ROM update instructions updated.
v1.10	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 Options.
v1.11	3/14/2012	Flash ROM by PC Utility procedure clarified.
v1.12	4/16/2012	RAM Clear procedure clarified. Stock bitmap images for receipt information added (System Options 38-41).
v1.13	6/11/2012	Added Print Option #42 for printing Electronic Journal at a remote printer. (Version 1.026)
v1.14	6/20/2012	Post Authorization function added.
v1.15	8/01/2012	Updated balancing formula.
v1.16	8/03/2012	System Option #39 values corrected.
v1.17	8/27/2012	System Option #24 values corrected.
v1.18	8/30/2012	System Option #42 added to allow transactions over 200 items.
v1.19	9/12/2012	Added EBT option to food stamp tender key with Version 1.030.
v1.20	9/17/2012	Tip function description clarified.
v1.21	11/16/2012	Flash Program file name changed from NEWNET.bin to ER900.bin

Edition	Date Published	Revision Contents
v1.22	1/24/2012	Updated System Options #21, #22 and Subtotal Function Options to accommodate Canadian rounding on cash transactions.
v1.23	2/18/2012	Updated EBT/Food Stamp Information.
v1.24	5/3/2013	Cash Benefit function added to Charge function keys at version 1.030.
v1.25	5/15/2013	Added explanation for manual card entry: Credit, gift EBT allowed, PIN debit not allowed. Clarified Tare Weight program entries.
v1.26	5/31/2013	Quick Start Straight Tax Rate Programming Updated.
v1.27	8/15/2013	Check Gift Card Balance procedure added.
v1.28	12/18/2013	Standard memory expanded from 4MB to 16MB. Refer to "Memory Allocation" to determine maximum feature limits.
v1.29	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.
v1.30	6/5/2014	Added "Not Found PLU Report" to report table.
v1.31	6/19/2014	Added Print Option #29, Print on Kitchen Printer by Item.
v1.32	7/01/2014	Corrected system option reference (option #31) for PLU Descriptor Programming by alpha code. Updated version # in footer.
v1.33	8/14/2014	Not Found PLU Procedure updated. Clear function required after PLU error.
v1.34	10/7/2014	Added features associated with version 1.053: Price Change key added; Print Options 43 and 44 added.
v1.35	10/10/2014	Correct system option #34 to say: "Type 3" instead of "Type 2". Updated barcode explanation diagram for option #34.
v1.36	2/26/2015	Corrected Tare Weight program instructions.
v1.37	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-915E information; Print Option #47 Print on Journal; Edited Tare Weight programming
v1.42	5/21/2018	Updated ER-915E information
v1.43	5/23/2018	Corrected ER-915E Memory Clear
v1.44	11/30/2018	Updated Scale Function key
v1.45	1/7/2019	Updated Logo
v1.46	5/31/2019	X/Time displays Date & Time
v1.47	6/6/2019	System Options: 26 Disable Amount Confirmation In EFT *(requires v1.107 or later)*
v1.48	8/6/2019	Financial/Clerk Report Descriptors
v1.49	8/21/2019	Added Charge Key option digit N6 in flow chart
v1.50	1/23/2020	Added System Option #44; Print Option #47; Age Verification operation
v1.51	6/5/2020	Revised Flash ROM Updates; Added % key Option: Print Tax Symbol; Corrected System Option Table
v1.52	12/17/2020	Updated Descriptor Code Chart; Alpha Keyboard Overlays
v1.53	2/16/2021	Added % key option definitions; Updated Program Scans
v1.54	5/3/2021	Updated Integrated Payment

Edition	Date Published	Revision Contents
v1.55	9/1/2021	Updated % key Flow chart
v1.56	9/27/2021	Updated Non-EMV Integrated Payment Configuration Diagrams
v1.57	10/14/2021	Added Quick Journal Review
v1.58	12/7/2021	Removed blank pages
v1.59	1/27/2022	System Option definitions
v1.60	3/28/2022	FLASHROM Updates
v1.61	6/9/2022	Reports saved to SD sample receipt
v1.62	6/10/2022	Added details for saving Reports to SD; Successful\Unsuccessful reports backup to SD receipt samples
v1.63	8/15/2022	Save X1 reports as *.csv & *.rep
v1.64	10/21/2022	Validation Note and X/Time operation
v1.65	11/18/2022	PLU Descriptor printing notes
v1.66	12/01/2022	SD Card Utilities, Starting KP Order Number,
v1.67	12/15/2022	Clarified MACRO programming
v1.68	4/13/2023	Identifying Components, Memory Allocation Notes, Check Endorsement
v1.69	5/5/2023	Discounts & Coupons, Mix & Match, X/Time operation, Modifier Entries, Function Keys, Validation Sample
v1.70	3/1/2024	Report Samples Notes; EFT Datatran EFT Operations Table; At v1.124 the Charge 1-8 function keys: N5 status #3 changed from Gift to NPCredit
v1.71	8/20/2024	Keyboard Expansion, Datacap-EMV Integrated Payment Programming
v1.72	1/2/2025	System Option Reference Table, function keys
v1.73	4/2/2025	Program 990 – Age Verification
v1.74	6/30/2025	Added DC Direct related settings, Z-Mode Procedures. Updated 101 SBTL-SD Card Saving Reports. Charge key, F/S TEND key, System Options.
v1.75	8/20/2025	Integrated Payment, FS/Tend
v1.76	9/30/2025	EPROM INFO; Z-Mode Procedures; F/S TEND
v1.77	12/23/2025	System Options-Reference Information; Subtotal key; Daily Sales Report
v1.78	1/12/2026	Report Table
v1.79	2/10/2026	Function Key Codes
v1.80	2/26/2026	System Options
v1.81	4/23/2026	Added Dejavoo information; Edited Function keys