

NT2324

OPERATING MANUAL

CODE:EX-5/E

NOTICE

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While every precaution has been taken to make this manual accurate, the Manufacturer shall not be liable for any errors or omissions, nor for any damages resulting from the use of the information herein.

This manual may not be copied or transmitted by any means, in whole or in part, without prior written consent from the Manufacturer.

FEDERAL COMMUNICATIONS COMMISSION NOTICE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to section J in Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause disruptive interference of radio communications. Operation of this equipment in a residential area is likely to cause interference, in which case the user will be required to correct the problem at his own expense

Introduction

We very much appreciate your purchase of this cash register. This cash register is equipped with function keys which allow you to program and use various functions and with numeric keys for entering numbers.

This manual explains the methods for programming and entering transactions with this cash register and it describes precautions and accessory items necessary to use it. This manual also shows examples of the receipts that will be printed out for each case described.

Before using the cash register, please read this manual so that you understand its operation.

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FEDERAL COMMUNICATIONS COMMISSION NOTICE

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Overview of Steps Required to Use This Cash Register

1. Understand your cash register.

Before using your cash register, check the specifications and part names, and confirm the precautions for using it.

→ See Chapter 1, "Before Starting Operations."

2. Install your cash register.

Place the cash register in a location near a wall outlet and plug the power cord into the outlet.

→ See section 2.1 "Installing the Cash Register."

3. Initialize the cash register.

Initialize the cash register's memory, before programming the cash register.

→ See section 2.2 "Initializing Your Cash Register."

4. Install the paper roll.

Install paper rolls for the receipt and journal correctly.

→ See section 2.3 "Installing and Removing a Paper Roll."

5. Program your cash register.

Program certain items for your store into the memory of the cash register, for example, the price of an item, the taxes levied on the item, the functions of the keys and so on.

→ See Chapter 3 "Programming."

6. Operate the cash register.

Perform the sales transaction according to your programming.

→ See "Chapter 4 Cash Register Operation," "Chapter 5 Making Correction," and "Chapter 6 Special Functions."

7. Check and reset the sales information.

Review and reset the daily sales information. You can also check the information from a certain period of time, such as a week and a month. After resetting the information, you can enter the new information from the next day.

→ See Chapter 7 "Checking and Resetting the Sales Information."

1 Before Starting Operations

This chapter describes the specifications, precautions and part names of this cash register.

1.1 General Specifications

Item	Description
Power source	AC117V, 220V, 230V or 240VA $\pm 10\%$ Depends on the country
Power consumption	23W
Ambient operating temperature	32°F to 140°F (0°C to 40°C)
Memory	C-MOS RAM
Memory back-up time	Approx. 500 hours
Printer	2 station print wheel selective impact type
Printing speed	Average 3.0 lines per sec.
Paper roll	Width 44.5 mm (1.75 inches)
	Max diameter 80 mm (3.15 inches)
External dimensions	410 mm (W) x 415 mm (D) x 310 mm (H)
	(16.1" (W) x 16.3" (D) x 12.2" (H))
Weight	11.5kg (25.4 lb)

1.2 Precautions

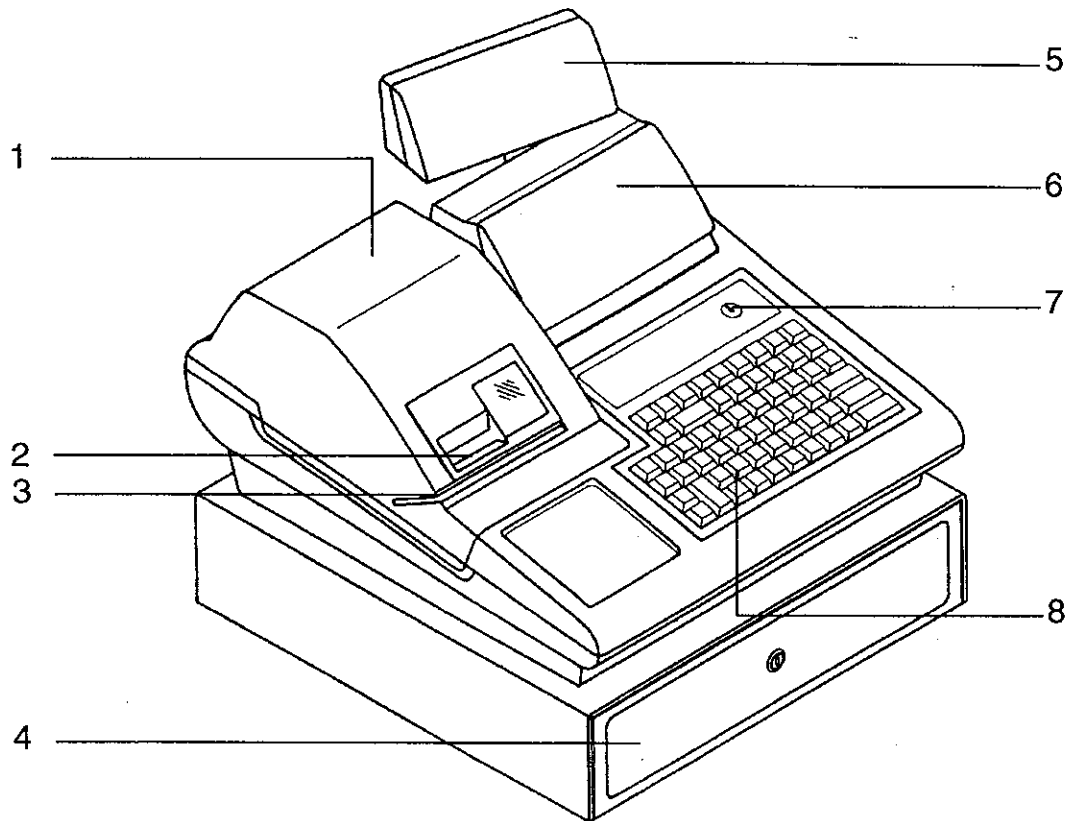
Please note the following items before using the cash register.

- Avoid using the cash register in the following conditions:
 - Exposed to direct sunlight or water
 - Hot or humid environments
 - Near equipment that generates strong electromagnetic fields
 - Anywhere there may be sudden changes in temperature
- Do not touch the cash register if your hands are wet.
- If the register malfunctions, do not attempt to repair the cash register by yourself.
- Plug your cash register into any standard wall outlet. Other electrical devices on the same circuit may damage the cash register.
- The main outlet for this cash register must be located near the unit and easily accessible.

1.3 Part names and Functions

This section shows part names and describes the function of each part of the cash register.

■ An External View

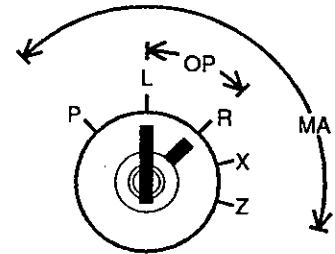


Part names	Functions
1. Printer cover	This cover protects the printer.
2. Receipt dispenser	This is where the receipt comes out.
3. Validation slot	This slot is validation printing. Insert the validation paper here.
4. Drawer	This drawer is used to store cash, checks, coupons, etc. There is a lock on it. Lock or unlock with the drawer open key which came with this cash register.
5. Display (Customer's side)	This display shows the customer the price, total, change due, department codes, PLU codes and various types of symbols during sales transaction.
6. Display (Operator's side)	This display shows the operator the price, total, change due, department codes, PLU codes and various types of symbols during sales transaction.
7. Control lock	The control lock allows you to change cash register modes.
8. Keyboard	The keyboard includes 24 function keys which allow you to perform various functions. There are also 16 department keys and 11 numeric keys.

1 Before Starting Operations

■ Control Lock

The control lock allows you to change the cash register mode. Your register is equipped with five modes. The cash register is always in one of these five modes for any operation. To change modes, use the manager's key (marked with "MA") and the operator's key (marked with "OP") which came with this cash register. Insert the manager's key or the operator's key into the control lock and turn it to a required position. The manager's key can select any mode. The operator's key can select the "L" or "R" positions.



MA: Area the manager's key
can access

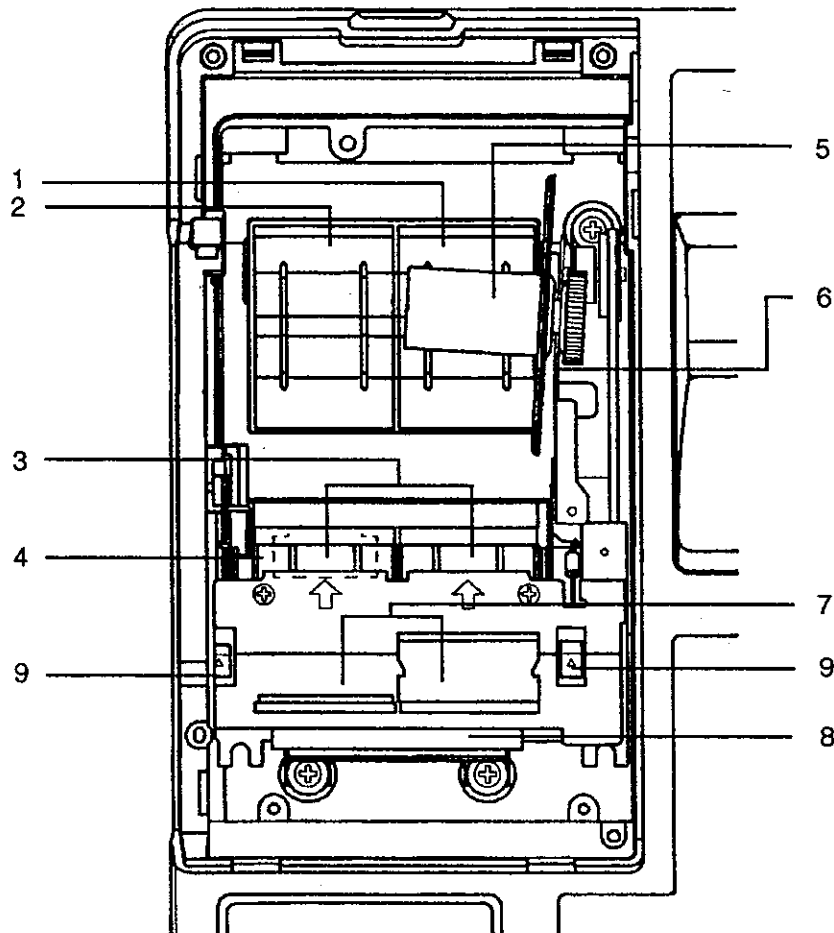
OP: Area the operator's key
can access

The following table shows the modes the cash register is equipped with.

Mark	Mode Name	Functions
P	Program mode	Used to programming various cash register functions.
L	Lock mode	Used to turn off the cash register. This mode disables all operations.
R	Register mode	Used for normal checkout operations.
X	Read mode	Used to print sales information reports.
Z	Reset mode	Used to read or reset the sales information.

Printer

The figure below shows the printer with the cover removed.

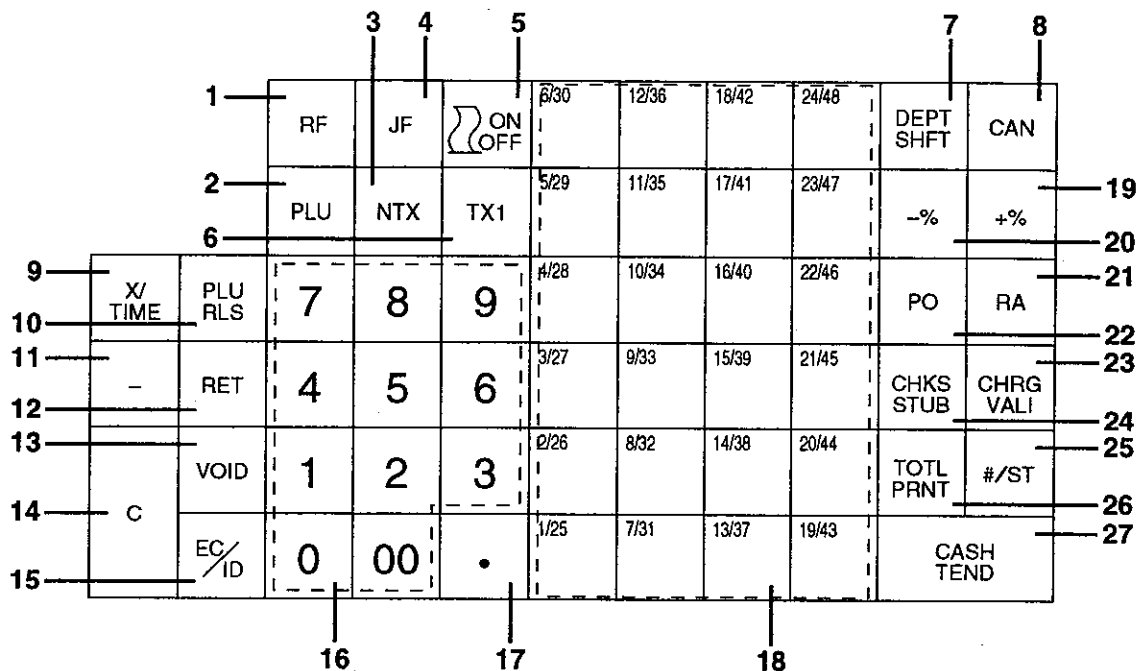


Part names	Functions
1. Journal Location	The paper roll for record keeping (the journal) is located here.
2. Receipt Location	The paper roll for receipts is located here.
3. Paper Entrance	The end of each paper roll is inserted into the printer here.
4. Message Stamp	Automatically prints the message "YOUR RECEIPT THANK YOU," for the customer on the receipt. The stamp is located under the paper entrance.
5. Journal Spindle (Take-Up Reel)	Used to take up the paper used for record keeping (the journal).
6. Journal Spindle Support	Used for the journal spindle (take-up spool) to take up the journal paper used for record keeping.
7. Paper Exit	The paper exits here.
8. Ink Roller	Used to supply ink to the printer.
9. Paper Release Levers	Used to release paper feed and to open the clamshell printer to access the paper path.

1 Before Starting Operations

■ Keyboard

The figure below shows the standard keyboard for this cash register.



Name	Abbreviation	Functions
1. Receipt feed Key	RF	Used to advance the receipt paper.
2. Price look up Key	PLU	Used for registering a PLU item.
3. Non-tax Key	NTX	Used for registering a taxable item as a nontaxable item.
4. Journal feed Key	JF	Used to advance the journal paper.
5. Receipt ON/OFF Key	ON/OFF	This key allows you to turn off receipt printing, to save paper.
6. TAX Key 1	TX1	Used to add tax to the sales amount. The tax rate for this Key can be programmed.
7. Department shift Key	DEPT/SHFT	Changes the code used by the Department Keys. For example, it is pressed to use the 1 key (marked 1/25) for department 25.
8. Cancel Key	CAN	Used to cancel a transaction before it is completed.
9. Multiplication/Time Key	X/TIME	Used when register multiple items. Also used to display the current time and for programming.
10. PLU price entry key	PLU / RLS	Used to entering the price of PLU items. This key is also used for programming.
11. Minus/Coupon Key	[-]	Used to discount a certain amount or subtract an amount of an item when you receive coupon.
12. Return Key	RET	Used to register the price of returned items.
13. Void Key	VOID	Used to void an amount you have entered and stored.
14. Clear Key	C	Used to clear an error that displays the error code "E" or an amount you entered mistakenly.

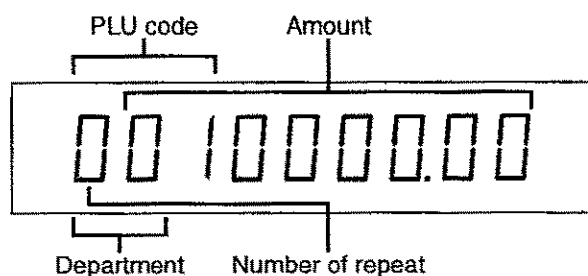
1 Before Starting Operations

15. Error correction/Clerk ID Key	EC/ID	Used for voiding an incorrectly entered item immediately after entering it and for entering clerk passwords.
16. Numeric Keys	1 to 00	Used for entering numbers.
17. Point Key	•	This key is used to enter decimal values.
18. Department Keys	1/25 to 24/48	Used to classify the source of an item from up to 48 departments. You must press one of these keys every time you sell an item assigned to a department key.
19. Premium Key	[+ %]	Used to add a percentage, such as a premium, to the price of an item.
20. Discount Key	[- %]	Used to give a discount as a percentage of the price of an item.
21. Received on account Key	RA	Used to register money received on account. This key is also used for programming.
22. Paid-out Key	PO	Used to register a non-sales amount of cash removed from the drawer. For example, you can register an amount of petty cash when the store opens. This key is also used for programming.
23. Charge/Validation Key	CHRG/VALI	This key is used when a customer charges an item. It is also used for validation printing.
24. Check/Stub Key	CHKS/STUB	This key is used when receiving check for a sale and it is also used to issue a stub receipt.
25. Non-add/Subtotal Key	#/ST	Used to print a non-add code and to display a subtotal during operations. This key is also used for programming.
26. Total/Print Key	TOTL/PRNT	Used to display a subtotal including tax or to issue a second receipt immediately after issuing the first one. This key is also used for programming and for issuing training reports.
27. Cash/Tender Key	CASH/TEND	Used to register the amount of cash tendered by the customer, complete the sales transaction and display the amount of change due. This key is also used for programming and for issuing reports.

1 Before Starting Operations

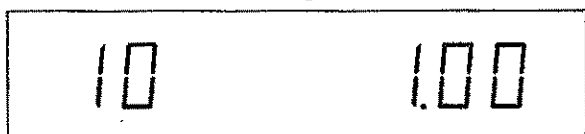
■ Display

Your cash register has two seven-segment displays: one for the operator and one for the customer. They display prices, subtotals, change due, status codes and so on. Each display can show up to nine digits. The figure below shows the display positions for each type of item.

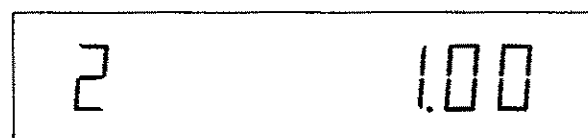


Examples of display conditions

Shows a sale from Department 10.



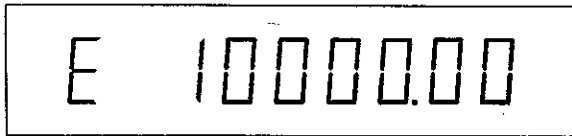
Shows that two of the same item are being sold.



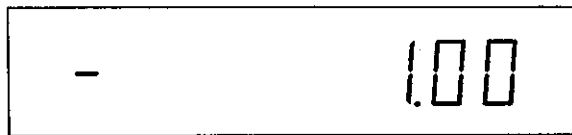
Examples of status symbols

Your register has seven types of status symbols: "E", "-", "[", "□", "U", and food stamp symbol "▲". Each symbol is displayed as shown below:

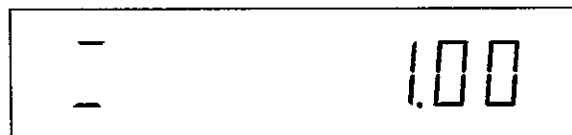
Appears when an error, such as an overflow, occurs.



Appears when discounting.



Appears when registering non-sales amount. For example, entering money received on account and entering petty cash removed from the drawer (paid-out).



Appears when the amount received from a customer is more than the sales total.



Appears when the cash register calculates the subtotal after pressing the #/ST Key or when the amount received from a customer is less than the sales amount.



Appears when voiding and entering returned item from a customer.



Appears a period "▲" at the eight digit to the left of the decimal point when the DEPT/SHFT Key is pressed.



2 Setting Up

This chapter explains what steps are required before programming the cash register.

2.1 Installing the Cash Register

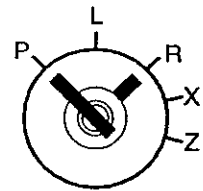
To install the cash register:

1. Place the cash register in a location near a wall outlet.

CAUTION

- Be sure not to locate the cash register in any of the conditions described in section 1.2, "Precautions".

2. Plug the power cord into the outlet.
3. Insert the manager's key (marked with "MA") into the control lock and turn it to the "P" position.
4. Make sure that the register display reads "0,".
5. Turn the manager's key to the "L" position to turn off the display.



2.2 Initializing Your Cash Register

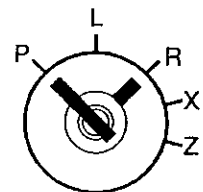
Before programming the cash register, you must initialize the cash register's memory.

CAUTION

- Do not perform the following steps during programming or normal operation. These steps will clear all of the settings you have programmed and erase all sales information in the register.

To initialize the cash register:

1. Turn the manager's key to the "L" position.
2. Remove the power cord from the outlet.
3. Turn the manager's key to the "P" position.
4. If you want to use the Clerk Key function, press any clerk key. For more information about the Clerk Key function, see "Clerk Keys" in section 1.3, "Part Names and Functions".
5. Plug the power cord while pressing the **C** Key and hold the key down for at least two seconds. When you release the key, "0," will appear in the display. At this point, the register has been initialized.
6. Turn the manager's key to the "L" position to turn off the display.



2.3 Installing and Removing a Paper Roll

This section describes how to install and remove a paper roll. Install two paper rolls in your cash register. One is for receipts. The other is for your records (journal).

Before installing a paper roll, be sure to do the following to avoid causing a paper jam:

- Orient the paper roll so that it rotates in a counterclockwise direction, as shown in Fig.1.

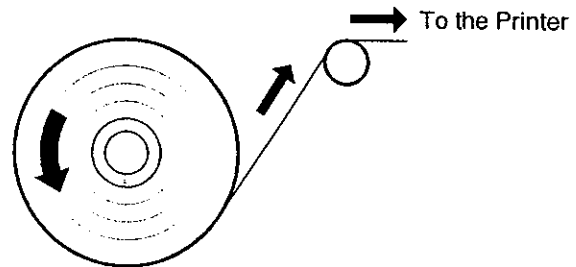


Fig.1

- The end of the paper which will be inserted into the printer must look like the one shown in Fig.2. Do not insert a paper end that looks like the ones shown in Fig.3.



Fig.2

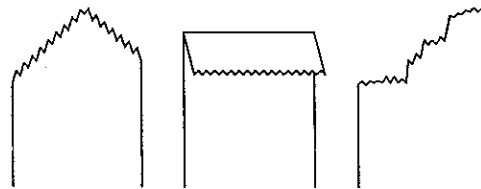


Fig.3

Installing a Paper Roll

To install a paper roll for receipts:

1. Make sure the control lock is in the "R" position.
2. From the front of the cash register, grab the rear of the printer cover and lift it up (See Fig.4.).

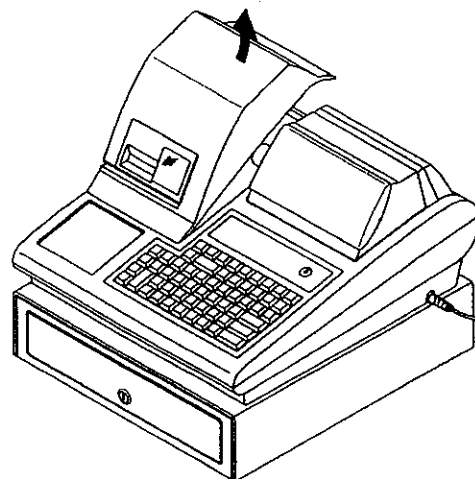


Fig.4

2 Setting Up

3. Load the paper roll into the receipt location.
4. Insert the end of the paper into the paper entrance. (See Fig.5).
5. Press and hold the Receipt feed Key until the paper comes out of the printer

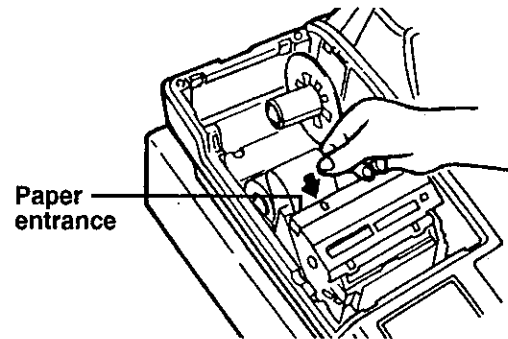


Fig.5

To install a paper roll for your journal:

1. Load a paper roll into the journal location.
2. Insert the end of the paper the same as done for the receipt paper.
3. Press and hold the Journal feed Key until the paper comes out of the printer.
4. Insert the end into the slot in the take-up reel and wind two or three turns of paper around the reel (See Fig.6).

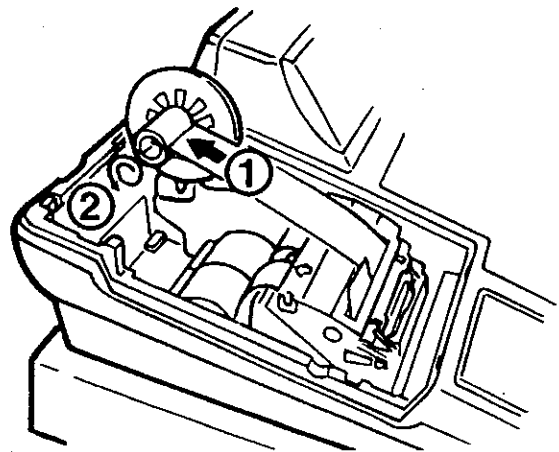


Fig.6

5. Load the take-up reel into the support (See Fig.7).

When you have finished installing the paper roll, close the printer cover.

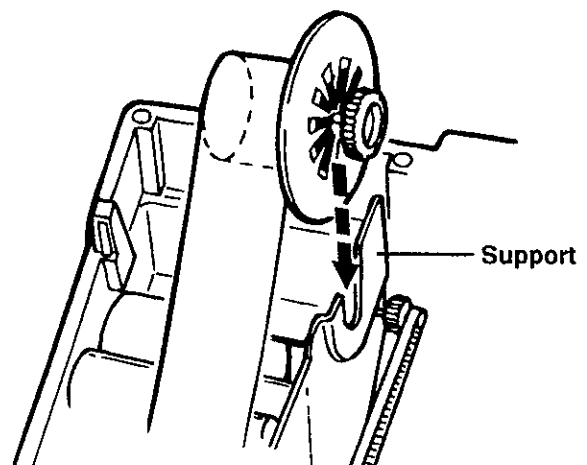


Fig.7

Removing a Paper Roll

When the paper begins to have a red area on it, replace the paper roll.

To remove the paper roll for receipts:

1. Turn the control lock to the "R" position.
2. Open the printer cover.
3. Cut the paper near the roll and remove the remaining paper on the roll.
4. Press and hold the Receipt feed Key until the remaining paper comes out of the printer (See Fig.8.).

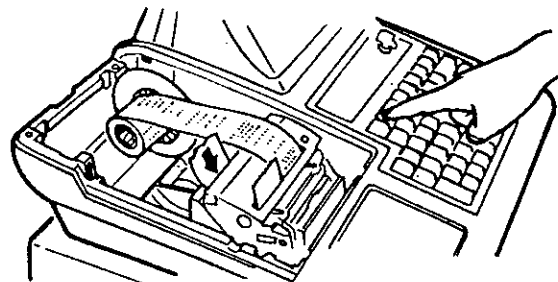


Fig.8

To remove the paper roll for the journal:

1. Turn the control lock to the "R" position.
2. Open the printer cover.
3. Feed the paper two or three lines forward with the Journal feed Key.
4. Remove the take-up reel from the support.
5. Cut the paper after the end of the printing (See Fig.9.).
6. Remove the paper record from the take-up reel (See Fig.10.).
7. Remove the remaining paper roll the same as done in step 3. and 4. in the instruction for removing the paper roll for receipt.

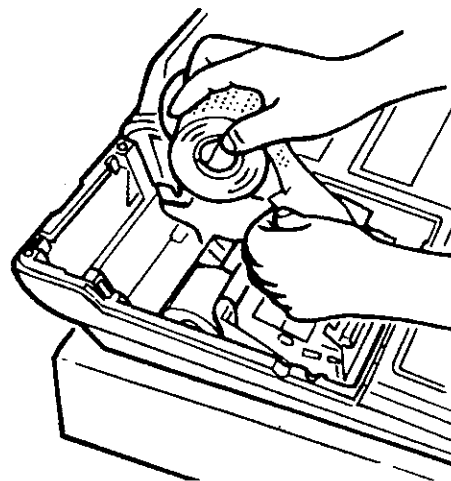


Fig.9

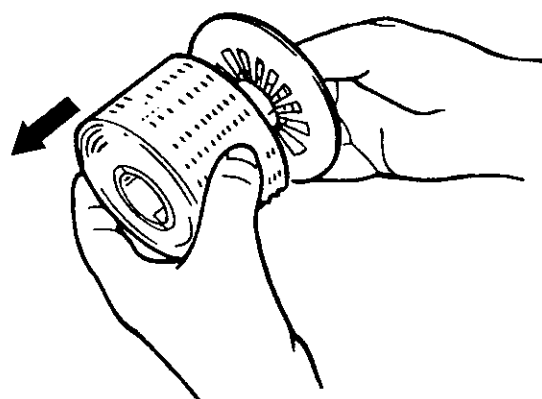


Fig.10

When you have finished removing the paper, install a new one and close the printer cover. See "Installing a Paper Roll."

3 Programming

This chapter presents the instructions for programming your cash register.

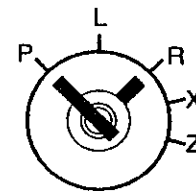
3.1 Before Programming

Before using your cash register, you must program certain items for your store into the memory of the cash register. Your cash register allows you to enter the price of an item, the taxes levied on the item, the functions of the keys and other useful functions. The instructions for programming are explained the following sections.

When you have finished all the programming you need to do, you can check the contents of your program. See section 3.12, "Checking the Contents of Your Program."

The following things must be done before programming:

- Initialize the memory. See section 2.2, "Initializing Your Cash Register."
- To select the "Program mode," insert the manager's key into the control lock and turn it to the "P" position. For more information about the control lock, see the "Control Lock" in section 1.3, "Part Names and Functions."



If the cash register hangs during programming, reset the cash register computer system as follows:

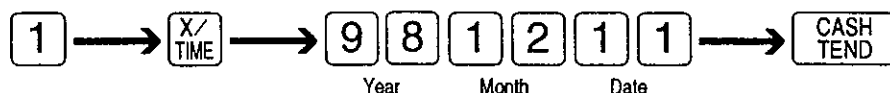
1. Turn the manager's key to the "L" position.
2. Remove the power cord from the outlet.
3. Turn the manager's key to the "P" position.
4. After waiting at least five seconds, plug in the register.

3.2 Setting the Date and Time

This section explains how to set the current date and time. Your cash register has a clock/calender memory. Once you set the date and time, you do not need to change the settings.

Setting the Date

The following example shows how to enter "December 11th 1998."

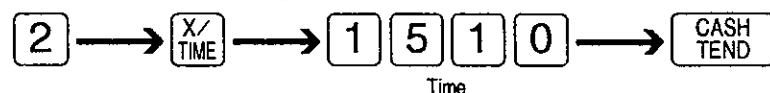


NOTE

- Enter the year, month and date in that order.
- If necessary, press the **C** Key to clear the display contents.

Setting the Time

The following example shows how to set the time to "15:10".



NOTE

- When you want to set the time to 3:10 PM, enter "1510". Do not enter "310".
- To check the time, turn the manager's key to the "R" position and press the **X/TIME** Key.

3.3 Setting the Machine Number

You can set machine number for your cash register to identify it. For example, if your store is a chain store, a unique number can be used for each cash register in each store. You can enter a maximum of two digits.



3.4 Setting the Transaction Number

You can set the starting transaction number printed on each journal. Once you set it, the number is increased by one for each transaction. You can enter a maximum of four digits.



3.5 Department Programming

This section describes how to program departments. You can distinguish between 48 departments with Department keys on the keyboard. To use departments, you must classify the items for sale by assigning them to a department, from "Department 1" to "Department 48". To enter an item in your register, you must press the Department Key for the department the item belongs to. The sales amount, the sales quantity and so on, are stored in separate Department files. When you print out a sales report, the sales amount and the number of sales for each Department will appear in the report.

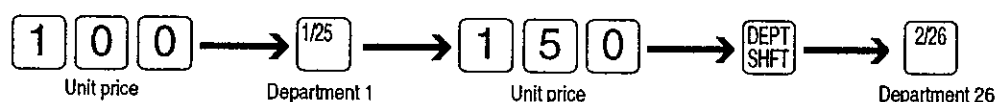
To program a department, you must set a unit price for each department. And if necessary, you can change the function flags settings for each department. The function flags control the "single-item cash sale" function, food stamps items, the maximum number of digits for a sales amount that can be entered in the register, assigning departments to a group, and selecting a tax status.

Setting a Unit Price

You can set a unit price up to seven digits long. If necessary, you can insert the decimal point in the displayed and printed amount before setting a unit price. For example, if you set unit prices in U.S. dollars and cents, insert the decimal point so that the number of decimal places are two digits. For inserting the decimal point, see section 3.10, "Setting System Flags." The following example shows that "\$1.00" and "\$1.50" are entered for Department 1 and Department 26 respectively.

NOTE

- When you want to set a unit price for Departments 25 to 48, press the **DEPT/SHFT** Key before pressing the Department Key. This key toggles the "Department 1 to 24 set mode" and "Department 25 to 48 set mode."



Setting Function Flags

There are five function flags you can set for each department. Function flags are flags to impose limitations on the use of each Department Key. Each flag has some options to be selected. For example, Flag 2, which limits the number of digits you can enter, has seven possibilities. If you assign a limit of six digits to Flag 2 in Department 1, you can only enter an amount up to six digits long when selling an item from Department 1. If you enter seven digits, an overflow error will occur and the error code "E" will appear on the display.

You can set the following function flags:

■ Flag 1

Each department can be programmed with a negative (minus) value. This is useful for convenient registration of deposit returns, bottle returns, etc. Each department can also be programmed for Gallonage mode which allows a 3 decimal unit price required for inputting cost per gallon of gas. In Gallonage mode, the department key will accept entering a price with a decimal point.

■ Flag 2

This flag allows you to create a "single-item cash sale" function for a department. The "single-item cash sale" function is used to shorten the number of key strokes when registering a single item sale for cash. When you press a Department Key which has "single-item cash sale" function, the transaction ends automatically without pressing the **CASH/TEND** Key. This flag also allows you to register items purchased with food stamps.

■ Flag 3

This flag limits the number of digits you can enter for a sale from that department. If you enter more digits than the setting allows, an overflow error will occur.

■ Flag 4

This flag assigns a department to a group. Classifying departments in groups allows you to get the group report and check the sales for each group. For example, if your store uses Department 1 for selling onions and Department 2 for selling carrots, when they are assigned to the same group, you can check the sales of vegetables.

■ Flag 5

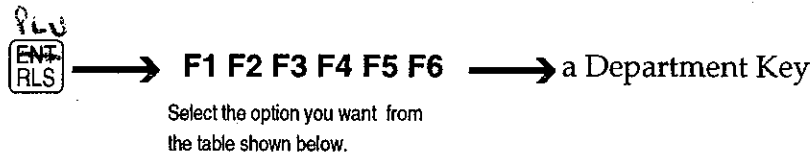
This flag allows you to add TAX4 to sales from that department. For details about taxes, see section 3.7, "Tax Programming".

■ Flag 6

This flag allows you to add TAX1, TAX2 or TAX3 to sales from that department. For details about taxes, see section 3.7, "Tax Programming".

3 Programming

To set the function flags for a department, press the **ENT/RLS** Key, use the numeric keys to enter the option number you want for each flag and then press the Department Key. In the default setting, F1 to F6 are all zeros.



Flags	Press:	To:
F1	0	Gallonage Mode (accepts 3 decimal price)
	1	Negative & Gallonage Mode
F2	0	Disable single-item cash sales and food stamp sales
	1	Enable single-item cash sales
	2	Enable food stamp sales
	3	Enable single-item cash sales and food stamp sales
F3	0 to 6	Limit the number of digits. If you enter 1 to 6, one digit to six digits are allowed. If you press 0, seven digits will be allowed.
F4	0 to 9	Assign the department to one of 10 groups.
F5	0	Do not add TAX4 for the department.
	1	Add TAX4 to the department.
F6	0	Add no TAX.
	1	Add TAX1.
	2	Add TAX2.
	3	Add TAX1 and TAX2.
	4	Add TAX3.
	5	Add TAX1 and TAX3.
	6	Add TAX2 and TAX3.
	7	Add TAX1, TAX2 and TAX3.

NOTE

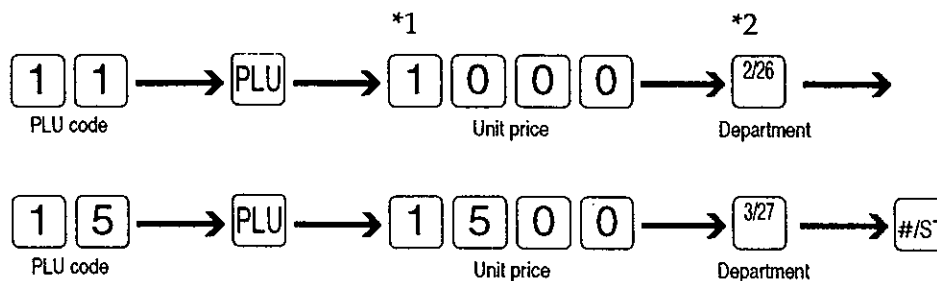
- The top zeros for F1 to F6 do not need to be entered. For example, you want to set "00010," enter "10."

3.6 Programming the PLU Function

This section describes the PLU function and how to program it. PLU is a function which allows departments to be subdivided. For example, with PLU, you can have different prices for one department. A maximum of 950 PLU codes can be programmed. To program a PLU code, you must enter a unit price and assign the department to which the PLU code belongs. When you enter a PLU code, the unit price which is programmed for the code is automatically recalled.

Programming PLU Codes

To program a PLU code, enter the unit price and assign it to a department. The following example shows how PLU code 11 and PLU code 15 are programmed. Unit prices of up to six digits can be used in a PLU code.



NOTE

- To enter a number of PLU codes at one time, repeat steps *1 and *2.
- To cancel a PLU code, enter PLU code number, press the PLU Key and press the **#/ST** Key without entering a unit price.

Setting the Maximum Number of PLU Codes

You can limit the number of PLU codes in use. The following example shows that only "20" PLU codes are allowed.



3.7 Tax Programming

You can program up to four types of tax to be added to each item. We call these four taxes TAX1, TAX2, TAX3 and TAX4. To program a tax, you must select a taxation system and enter the tax rate for that tax. For the instructions how to add these programmed taxes to an item, see "Setting Function Flags" in section 3.5, "Department Programming".

Selecting a Taxation System

Your cash register has three taxation systems. They are described as follows:

■ Add-on tax

This system calculates tax by using a tax rate you enter and it automatically adds the tax to the unit price or the price entered.

■ VAT

The Value Added Tax is a European tax system. It calculates tax by using the tax rate you enter and includes the calculated tax in the unit price or the price entered from the keyboard.

■ Tax table

This system calculates the tax by using a tax table that you enter. The tax table depends on the location of the store. Use the tax tables provided by the local tax office to enter the numbers. For instructions on entering a tax table, see "Tax Table" in this section.

To assign a taxation system to a tax (TAX1-TAX4), enter the tax number (1-4), press the **PO** Key, enter the number for the taxation system you want and then press the **CASH/TEND** Key.

N1
 Select an option from
 the table shown below.

→

PO

→

N2
 Select an option from
 the table shown below.

→

**CASH
TEND**

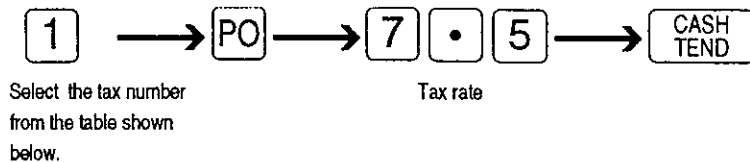
Numbers	Press:	To:
N1	5	Select TAX1
	6	Select TAX2
	7	Select TAX3
	8	Select TAX4
N2	0	Select Add-on tax
	1	Select VAT
	2	Select Tax table

NOTE

- You cannot assign the tax table system to TAX4.

Setting the Tax Rate

To set the tax rate for a tax (TAX1-TAX4), enter the tax number (1-4), press the **PO** Key, enter the rate and press **CASH/TEND** Key. Up to 99.9999% can be entered for the tax rate. The following example shows that 7.5 % has been entered for TAX1.

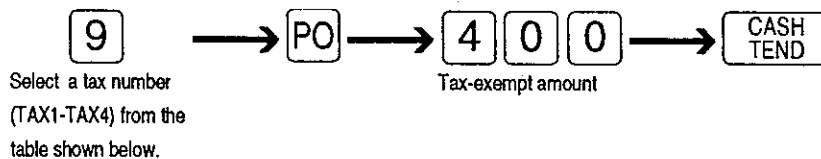


Press:	To:
1	Select TAX1
2	Select TAX2
3	Select TAX3
4	Select TAX4

Maximum Tax-exempt Amount

If necessary, you can set a maximum Tax-exempt amount for a given tax number (TAX1-TAX4). If you enter "\$4.00" for TAX1, when you sell an item which TAX1 will be added to, up to "\$4.00" will be Tax-exempt.

To set a maximum Tax-exempt amount, select the tax number (TAX1-TAX4), press the **PO** Key, enter an amount and press the **CASH/TEND** Key. Up to \$999.99 can be made Tax-exempt. The following example shows that "\$4.00" is entered for TAX1.



Press:	To:
9	Select TAX1
10	Select TAX2
11	Select TAX3
12	Select TAX4

Entering a Tax Table

If you select the "tax table system" for a tax number (TAX1-TAX3), you must enter a tax table for that tax. Enter the tax table provided by the local tax office.

About tax tables

A Tax table is a table which lists the applicable taxes for the amount of a sale. These can include city, state and federal taxes. The table lists sales amount ranges, and the tax to be levied on each amount, as a range of sales prices. Your cash register enables you to enter this table and then it will automatically calculate the tax.

The following table is an example of a state tax table.

An example tax table					
Rate: 3%					
Sales amount range			Tax amount		
\$0.00	to	\$0.14	None		*1
\$0.15	to	\$0.37	0.01	0.15 - 0.00	15
\$0.38	to	\$0.62	0.02	0.38 - 0.15	23
\$0.63	to	\$0.87	0.03	0.63 - 0.38	25
\$0.88	to	\$1.12	0.04	0.88 - 0.63	25
\$1.13	to	\$1.42	0.05	1.13 - 0.88	25
\$1.43	to	\$1.78	0.06	1.43 - 1.13	30
\$1.79	to	\$2.12	0.07	1.79 - 1.43	36
\$2.13	to	\$2.42	0.08	2.13 - 1.79	34
*5 - \$2.43	to	\$2.71	0.09	2.43 - 2.13	30
\$2.72	to	\$2.99	0.10	2.72 - 2.43	29
\$3.00	to	\$3.28	0.11	3.00 - 2.72	28
\$3.29	to	\$3.57	0.12	3.29 - 3.00	29
\$3.58	to	\$3.85	0.13	3.58 - 3.29	29
\$3.86	to	\$4.14	0.14	3.86 - 3.58	28
\$4.15	to	\$4.42	0.15	4.15 - 3.86	29
*6 - \$4.43	to	\$4.71	0.16	4.43 - 4.15	28
\$4.72	to	\$4.99	0.17	4.72 - 4.43	29
\$5.00	to	\$5.28	0.18	5.00 - 4.72	28
\$5.29	to	\$5.57	0.19	5.29 - 5.00	29
\$5.58	to	\$5.85	0.20	5.58 - 5.29	29
\$5.86	to	\$6.14	0.21	5.86 - 5.58	28
\$6.15	to	\$6.42	0.22	6.15 - 5.86	29
\$6.43	to	\$6.71	0.23	6.43 - 6.15	28
⋮		⋮	⋮	⋮	⋮

*1: Tax number
 *2: Tax rate
 *3: Tax rate
 *4: Tax rate
 *5: Minimum Break Value
 *6: Maximum Break Value
 *7: Tax amount
 *8: Tax amount

The tax table includes the following items:

■ **Tax rate**

■ **Sales amount range**

This range is the range of prices to which the tax amount given must be added. The minimum amount of each range is called the minimum break value, and the maximum amount is called the maximum break value.

■ **Tax amount**

This is the amount of tax that must be added to each sale within the corresponding range.

To enter the tax table, follow the steps below by using the items mentioned above.

1. Find the following items using the sample table:

a) Minimum break difference

This is the difference between the minimum break value of a range and the next minimum break value (marked with *1). Find the irregular cycles (marked with *2) and the regular cycles (marked with *3 and *4) for the minimum break values.

b) The first minimum break value in a regular cycle (marked with *5)

c) The difference between the first minimum break value (marked with *5) and the last one (marked with *6) for the first regular cycle

d) The difference between the first tax amount (marked with *7) and the last one (marked with *8) for the first regular cycle

e) The values of the irregular cycle (marked with *2)

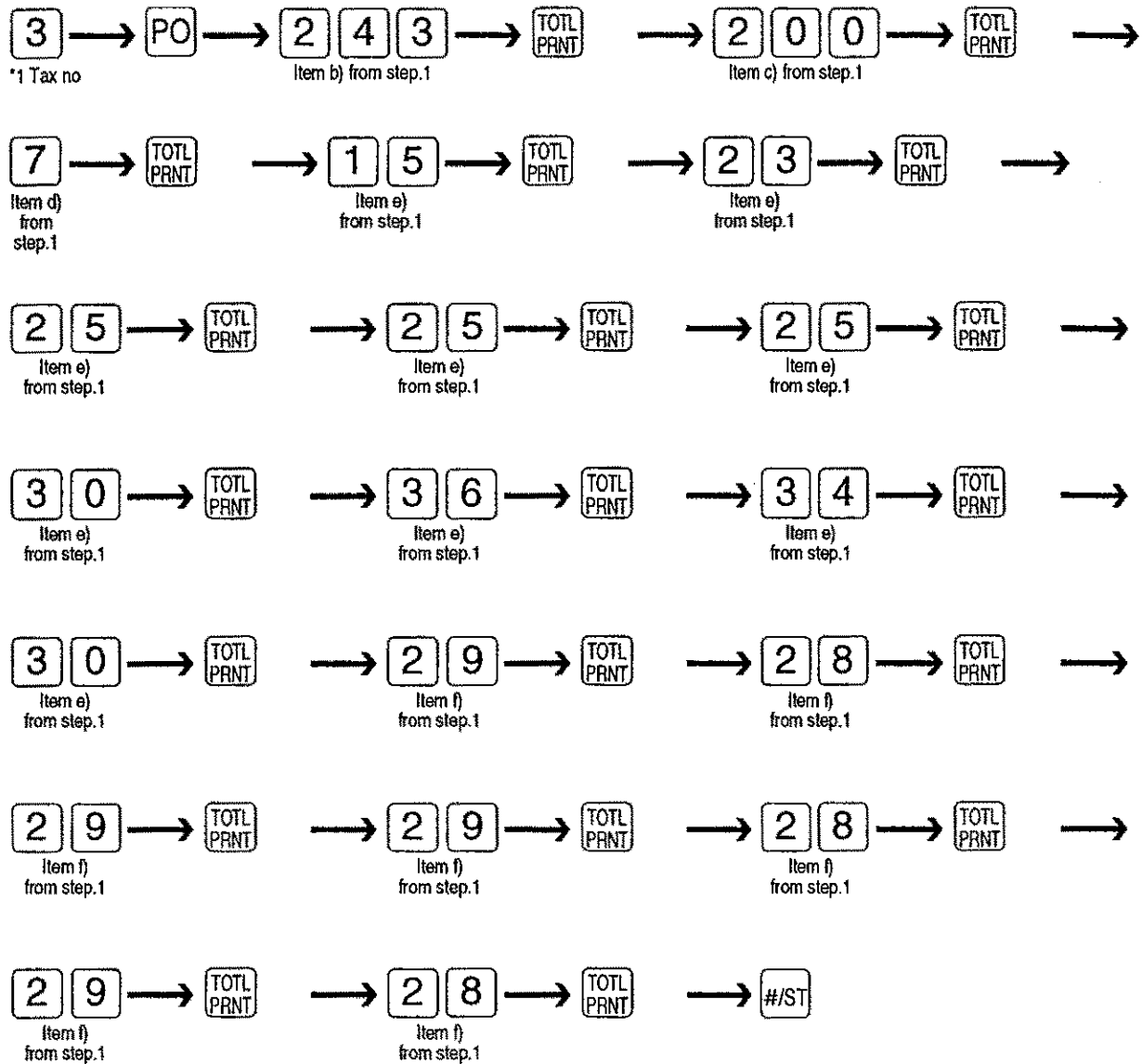
f) The values of first regular cycle (marked with *3)

3 Programming

2. Use the items found in step 1 and enter them as follows:

NOTE

Enter all the amounts as cents.



NOTE

- The applicable tax rate and "tax table system" must be set for the tax number which is used in this sequence (marked with *1). For the instructions of these settings, see "Setting the Tax Rate" and "Selecting a Taxation System" in section 3.7, "Tax Programming."

Canadian Taxation System

In Canada, there are two types of tax: the GST and PST. GST are taxes collected by the country. PST are taxes collected by the province. How the GST and PST are added to an item depends on the item. There are two methods as follows:

a) First, the GST is calculated, based on the cost of the item. Then the PST is calculated, based on the total cost of the item, including the GST which has already been added. For example, if a PST of 10% is calculated on a Department 1 item (originally \$10.00) to which a 7% GST has already been added, first the 7% (\$0.70) is added to reach \$10.70. Then the 10% PST (\$1.07) is added to the \$10.70 to arrive at \$11.77.

b) The GST and PST are added to an item separately, based only on the original price of the item. For example, if a 10% PST and a 7% GST are added to a Department 1 item (originally \$10.00), 10% (\$1.00) and 7% (\$0.70) are each added separately to the \$10.00, making a total of \$11.70.

To select the taxation system used in Canada, and to choose method a) or b), set System Flag 20, described in section 3.10, "Setting System Flags". If you select the Canadian taxation system, TAX1 will be used for GST, and TAX2, TAX3 and TAX4 are used for PST, automatically. You can also set the GST (TAX1) so that it is included in the PST, by setting System Flag 21, as described in section 3.10.

3.8 Programming the [-] Key, [%] Key, and the [-%] Key

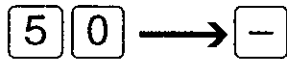
This section describes how to program the [-], [%] and [-%] Keys. These keys are used for discounting or adding a premium to the price of an item. If necessary, you can program other keys to be used as the [-] and [-%] Keys, as described in "Optional Keys" in section 3.11, "Programming Other Functions".

Programming the [-] Key

The [-] Key is used to discount a certain amount. You can enter the discount amount and change the function flags settings for this key. You can use this key with a preset discount amount or by entering a discount amount on the keyboard.

Setting the Discount Amount

You can enter a discount amount up to seven digits long. The following example shows that the [-] Key is set for a discount of "\$0.50".



Discount amount

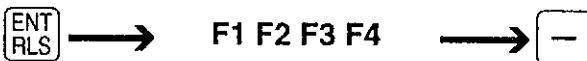
NOTE

- If you set the discount amount to an optional [-] Key, enter 27 and press the **X/TIME** Key before entering a discount amount. See "Optional Keys" in section 3.11, "Programming Other Functions".

Setting Function Flags

There are three function flags you can set for the [-] Key. For function flags details, see "Setting the Function Flags" in section 3.5, "Department Programming".

To set the function flags for the [-] Key, press the **ENT/RLS** Key, enter the selected option number for each flag and press the [-] Key.



Select an option from
the table shown on the next page.

NOTE

- If you set function flags to an optional [-] Key, enter 25 and press the **X/TIME** Key before pressing the **ENT/RLS** Key. See "Optional Keys" in section 3.11, "Programming Other Functions".
- In the default setting, F1 to F4 are all zeros.

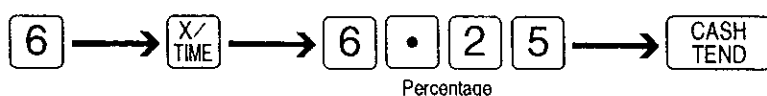
Flags	Press:	To:
F1	0 to 6	Set a limit on the number of digits that can be entered with the [-] Key. If you enter 1 to 6, the limit is set for one to six digits. If you enter 0, seven digits can be entered.
F2	0	Always enter 0.
F3	0	Do not add TAX4 to the discount amount calculated with this key.
	1	Add TAX4 to the discount amount calculated with this key.
F4	0	Add no TAX to the discount amount calculated with this key.
	1	Add TAX1 to the discount amount calculated with this key.
	2	Add TAX2 to the discount amount calculated with this key.
	3	Add TAX1 and TAX2 to the discount amount calculated with this key.
	4	Add TAX3 to the discount amount calculated with this key.
	5	Add TAX1 and TAX3 to the discount amount calculated with this key.
	6	Add TAX2 and TAX3 to the discount amount calculated with this key.
	7	Add TAX1, TAX2 and TAX3 to the discount amount calculated with this key.

Programming the [%] and [-%] Keys

The [%] and [-%] Keys are used to add or subtract a percentage of the price of an item. For example, you can use the [%] Key to add a premium, and the [-%] Key to give a discount. You can enter the percentage and change the function flags settings for these keys. You can use these keys with a preset percentage or you can enter the percentage from the keyboard at the time of the sales transaction.

Setting the Percentage

You can enter a preset percentage (up to 100.0000%) for the [%] and [-%] Key. The following example shows how to set the [-%] Key for a discount of "6.25%."



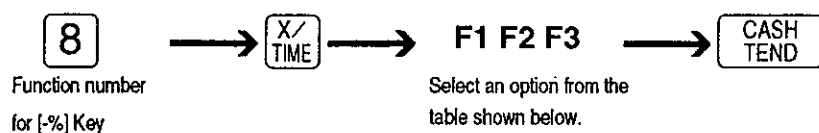
NOTE

- To set the percentage for the [%] Key, press 5 instead of 6 before pressing the X/TIME Key.
- If you set the percentage for the optional [-%] Key, enter 23 instead of 6, before pressing the X/TIME Key. See "Optional Keys" in section 3.11, "Programming Other Functions".

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Setting Function Flags

There are three function flags you can set for the **[+%**] or **[-%**] Keys. For function flags details, see "Setting the Function Flags" in section 3.5, "Department Programming". To set the function flags for the **[-%**] Key, do the following:



NOTE

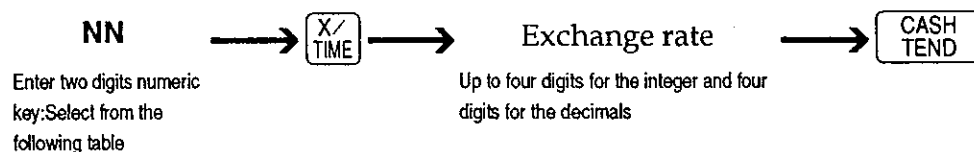
- To set the flags for the **[+%**] Key, press 7 instead of 8, before pressing the **X/TIME** Key.
- If you want to assign an optional **[-%**] Key, enter 24 for the function number, before pressing the **X/TIME** Key. See "Optional Keys" in section 3.11, "Programming Other Functions".
- The default for F1, F2 and F3 is zero.

Flags	Press:	To:
F1	0	Add or subtract the amount calculated with this key to or from the total original price of the items. When this setting is enabled, taxes are calculated based on the first price after the calculations from this key operation have been performed. The settings in F2 and F3 are ignored.
	1	Add or subtract the amount calculated with this key to or from the total original price of items. When this setting is enabled, taxes are added as follows: <ul style="list-style-type: none">■ Any tax which is specified in F2 or F3 is calculated based on the first price after the calculations from this key operation have been performed.■ Any tax which is not specified in F2 or F3 is calculated directly on the original price of the item.
F2	0	Do not specify TAX4.
	1	Specify TAX4.
F3	0	Specify no TAX.
	1	Specify TAX1.
	2	Specify TAX2.
	3	Specify TAX1 and TAX2.
	4	Specify TAX3.
	5	Specify TAX1 and TAX3.
	6	Specify TAX2 and TAX3.
	7	Specify TAX1, TAX2 and TAX3.

3.9 Setting the Exchange Rate

Your cash register allows you to convert your currency to a foreign currency with a currency exchange key (**FC** Key).

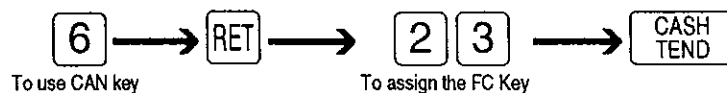
To use the **FC** Key, you must enter a currency exchange rate. You can preset up to four exchange rates. These rates are stored as values FC1 to FC4 inside this register. If you normally enter your sales as US\$, you must set an exchange rate so that US\$ can be converted to another currency. You must enter exchange rates as an eight digit number, four digits for the integer and four digits for the decimal portion. Do not press the decimal point Key while entering these eight digits. You do not have to enter leading zeroes. For example, if the current exchange rate between the US\$ and the British pound is "\$1.51," enter "15100".



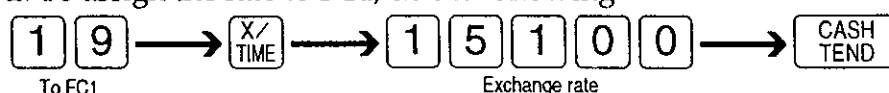
Enter:	To:
19	Assign the exchange rate to FC1
20	Assign the exchange rate to FC2
21	Assign the exchange rate to FC3
22	Assign the exchange rate to FC4

There is no pre-defined **FC** Key on the keyboard. So, to convert currency, you must program the other key to be used as the **FC** Key. The following example shows how you assign the exchange rate "\$1.51" to the FC1 rate. For the details of programming a key to be used as the **FC** Key, see "Optional Keys" in "3.11 Programming Other Functions" section.

1. To program **CAN** Key to be used as the **FC** Key, do the following:



2. To assign the rate to FC1, do the following:

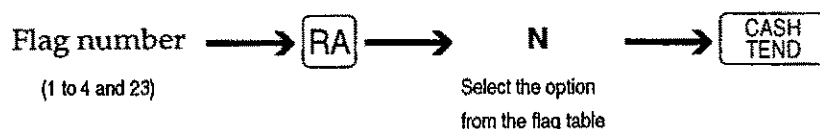


3.10 Setting System Flags

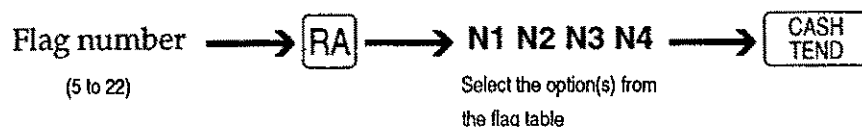
This section describes how to set the system flags which control the operation of this cash register, for example, selecting the printing format, the method used for rounding and so on. There are 23 system flags that can be set. Each flag has some options to choose from.

To set a system flag, enter the flag number, press the **RA** Key, enter the option number(s) you want for each flag and then press the **CASH/TEND** Key. The key sequence "A)", shown below, is used for Flags 1 to 4 and for flag 23. The key sequence "B)" is used for Flags 5 to 22, excepting Flag 19. For Flag 19, set as described in the part of Flag 19.

A)



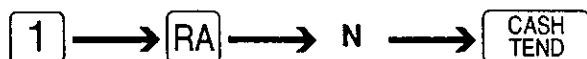
B)



The description of each of the system flags is on the following pages. The default setting for each flag depends on the country. If you want to check the default setting, see section 3.12, "Checking the Contents of Your Programming."

■ Flag 1

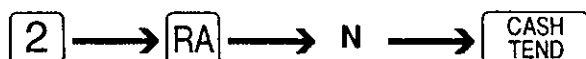
This flag allows you to select the number of decimals to be displayed and printed on a receipt, and to select the method used for registering multiple items.



Press:	To display and print:	register:
0	0	First enter the unit price, then enter the quantity
1	0.0	First enter the unit price, then enter the quantity
2	0.00	First enter the unit price, then enter the quantity
3	0.000	First enter the unit price, then enter the quantity
4	0	First enter the quantity, then enter the unit price
5	0.0	First enter the quantity, then enter the unit price
6	0.00	First enter the quantity, then enter the unit price
7	0.000	First enter the quantity, then enter the unit price

■ Flag 2

This flag allows you to select the printing format for the date.



Press:	To print:
0	Year, month, date, in that order.
1	Date, month, year, in that order.
2	Month, date, year, in that order.

■ Flag 3

This flag allows you to select the method used for rounding in percentage and multiplication calculations. The point at which rounding takes place depends on the Flag 5 setting.

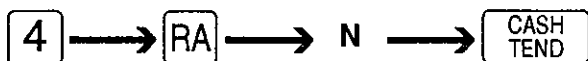


Press:	To select:
0	Round down (0.1 to 0.9 becomes 0.0) The rounding point may be changed by Flag 5.
5	Rounding (0.1 to 0.4 becomes 0.0, 0.5 to 0.9 becomes 1.0)
9	Round up (0.1 to 0.9 becomes 1.0)

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■ Flag 4

This flag allows you to select method used for rounding in tax calculations. The point at which rounding takes place depends on the Flag 5 setting.



Press: To select:

0	Round down (0.1 to 0.9 becomes 0.0) The rounding point may be changed by Flag 5
5	Rounding (0.1 to 0.4 becomes 0.0, 0.5 to 0.9 becomes 1.0)
9	Round up (0.1 to 0.9 becomes 1.0)

■ Flag 5



Options	Press:	To:
N1	0	Print on the journal at "REG" position.
	1	Do not print on the journal at "REG" position.
N2	0	Disable the Swiss method of rounding For information about the Swiss method, consult your dealer.
	1	Enable the Swiss method of rounding
N3	0	Select the first digit in the decimal to be rounded in tax calculations.
	1	Select the last digit to be rounded in tax calculations.
N4	0	Select the first digit in the decimal to be rounded in percentage and multiplication calculations.
	1	Select the last digit to be rounded in percentage and multiplication calculations.

■ Flag 6



Options	Press:	To:
N1	0	Print the quantity of each item sold on the receipt and the journal.
	1	Do not print the quantity of each item sold.
N2	0	Print the transaction number (Consecutive number) on the receipt and the journal.
	1	Do not print the transaction number on the receipt and the journal.
N3	0	Print the date on the receipt and journal.
	1	Do not print the date on the journal.
N4	0	Print the time on the receipt and journal.
	1	Do not print the time.

■ Flag 7



Options	Press:	To:
N1	0	Do not print the individual tax amounts on the receipt and journal.
	1	Print the individual tax amounts on the receipt and journal.
N2	0	Do not print the amount which the tax is added to.
	1	Print the amount which the tax is added to.
N3	0	Do not print the Value Added Tax (VAT) on the receipt and journal.
	1	Print the Value Added Tax (VAT) on the receipt and journal.
N4	0	Do not print the amount excluding VAT for items which include VAT.
	1	Print the amount excluding VAT for items which include VAT.

3 Programming

■ Flag 8



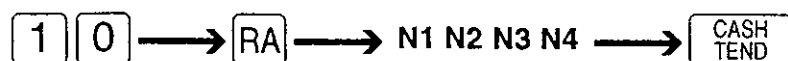
Options	Press:	To:
N1	0	Print the total sales for departments, on the reports.
	1	Do not print the total sales for departments on the reports.
N2	0	Print the gross sales on the reports.
	1	Do not print the gross sales on the reports.
N3	0	Print a grand total amount on the reports.
	1	Do not print a grand total amount on the reports.
N4	0	Print voided amounts and so on, on the reports.
	1	Do not print voided amounts and so on, on the reports.

■ Flag 9



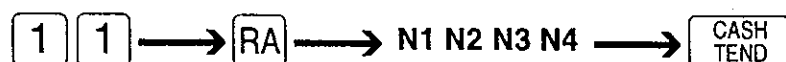
Options	Press:	To:
N1	0	Enable issuing stub receipt (printed total only).
	1	Disable issuing stub receipt (printed total only).
N2	0	Enable issuing a second complete receipt immediately after issuing the first one.
	1	Disable issuing a second complete receipt after issuing the first one.
N3	0	Disable issuing a second complete receipt immediately after issuing the first one when the Receipt ON mode (the Receipt mode indicator is off).
	1	Enable issuing a second complete receipt immediately after issuing the first one when the Receipt ON mode (the Receipt mode indicator is off).
N4	0	Enable printing the tax symbol "TX".
	1	Disable printing the tax symbol "TX".

■ Flag 10



Options	Press:	To:
N1	0	Disable printing the duplicate Z report.
	1	Enable printing the duplicate Z report.
N2	0	Print the department total sales amount as a net amount on the report: the total amount including calculations made with the [-] Key.
	1	Print the department total sales amount as a gross amount on the report: the total amount not including calculations made with the [-] Key.
N3	0	Print the department total sales amount as a net amount on the report: the total amount including calculations made with the [%] and [-] Keys.
	1	Print the department total sales amount as a gross amount on the report: the total amount not including calculations with the [%] and [-] Keys.
N4	0	Disable pressing another clerk key during operation.
	1	Enable pressing another clerk key during operation.

■ Flag 11



Options	Press:	To:
N1	0	Do not automatically add the preset percentage for the [%] Key to the sales amount.
	1	Automatically add the preset percentage for the [%] Key to the sales amount.
N2	0	Print the grand total as a net sales amount on the Z report: the report which is issued after resetting the sales.
	1	Print the grand total as a gross sales amount on the Z report: the report which is issued after resetting the sales.
N3	0	Print the number of transactions on the hourly report.
	1	Print the number of items on the hourly report.
N4	0	Do not reset the transaction number (Consecutive number) after issuing the Z report.
	1	Reset the transaction number after issuing the Z report.

3 Programming

■ Flag 12



Options	Press:	To:
N1	0	Enable registering transactions which more than one media is received, for example, cash and a check (Split tendering).
	1	Disable registering transactions which more than one media is received.
N2	0	Enable registering the amount received from a customer and the calculation of the change.
	1	Disable registering the amount received from a customer.
N3	0	Do not require the amount received from a customer to be registered.
	1	Require the amount received from a customer to be registered. (Compulsory tendering)
N4	0	Disable registering items whose price is entered as 0.
	1	Enable registering items whose price is entered as 0.

■ Flag 13



Options	Press:	To:
N1	0	Do not print a subtotal.
	1	Print a subtotal.
N2	0	Print the amount that is not taxed on the reports.
	1	Do not print the amount which is not taxed on the reports.
N3	0	Skip printing items whose price is entered as 0 on the reports.
	1	Print items whose price is entered as 0 on the reports.
N4	0	Skip printing PLU items whose sales amount as 0 on the reports.
	1	Print PLU items whose sales amount as 0 on the reports.

■ Flag 14



Options	Press:	To:
N1	0	X1, X2 report counter on the Full Training Report (Flag 22, #1 = "1") will not count up.
	1	X1, X2 report counter on Full Training Report (Flag 22, #1 = "1") will count up.
N2	0	Enable to issue the Cash in drawer report.
	1	Disable to issue the Cash in drawer report.
N3	0	Print the report number which shows the number of counts of printing the daily report (X1 report).
	1	Do not print the report number on the daily report (X1 report).
N4	0	Print the report number of the periodic report (X2 report).
	1	Do not print the report number of the periodic report (X2 report).

■ Flag 15



Options	Press:	To:
N1	0	Do not allow validation printing.
	1	Allow validation printing.
N2	0	Do not require registering the cash amount in the drawer before resetting the sales.
	1	Require registering the cash amount in the drawer before resetting the sales.
N3	0	Print the report number of the daily report which is issued after resetting (Z1 report).
	1	Do not print the report number on the daily report which is issued after resetting (Z1 report).
N4	0	Print the report number on the periodic report which is issued after resetting (Z2 report).
	1	Do not print the report number on the periodic report which is issued after resetting (Z2 report).

3 Programming

■ Flag 16



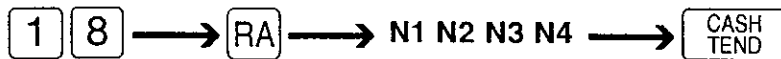
Options	Press:	To:
N1	0	Print the training information on the journal while in the operator training mode.
	1	Do not print the training information on the journal while in the operator training.
N2	0	Print the training mode symbol "TR" on the receipt while in the operator training mode.
	1	Do not print the training mode symbol "TR" on the receipt while in the operator training mode.
N3	0	Enable reports for training.
	1	Disable reports for training.
N4	0	Print the training information on the journal and count the training operations as transaction numbers.
	1	Do not print the training information on the journal and do not count the training operations as transaction numbers.

■ Flag 17



Options	Press:	To:
N1	0	Make a key stroke sound.
	1	Do not make a key stroke sound.
N2	0	Open the drawer when you press the CASH/TEND Key.
	1	Do not open the drawer when you press the CASH/TEND Key.
N3	0	Open the drawer when you press the CHRG/VALI Key.
	1	Do not open the drawer when you press the CHRG/VALI Key.
N4	0	Open the drawer when you press the CHKS/STUB Key.
	1	Do not open the drawer when you press the CHKS/STUB Key.

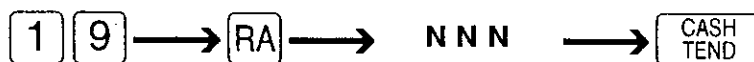
■ Flag 18



Options	Press:	To:
N1	0	Entry of Clerk Password is not required before printing Clerk Report.
	1	Entry of Clerk Password is required before printing Clerk Report.
N2	0	Change the "Department 25 to 48 entry mode" back to the "Department 1 to 24 entry mode" when the current sales transaction is finished.
	1	Stay in the "Department 25 to 48 entry mode" until the DEPT/SHFT Keys pressed again to change back to the "Department 1 to 24 entry mode".
N3	0	Do not reset the clerk password after each sales transaction is finished.
	1	Reset the clerk password after each sales transaction is finished.
N4	0	Do not reset the clerk password each time the position of the Control Lock is changed.
	1	Reset the clerk password each time the position of the Control Lock is changed.

■ Flag 19

To set this flag, enter the Flag number "19", press the **RA** Key, enter the option number and press the **CASH/TEND** Key.



Option no.	Description:
0	Print the clerk number, year, month, date and amount, in the order with the clerk number at the leftmost, on the validation paper.
1	Print the clerk number, month, year, the transaction number and amount, in the order with the clerk number at the leftmost, on the validation paper.
10	Print the clerk number, date, month, the transaction number and amount, in the order with the clerk number at the leftmost, on the validation paper.
11	Print the clerk number, time, month, the transaction number and amount, in the order with the clerk number at the leftmost, on the validation paper.
100	Print the validation code and amount, in the order with the validation code at the left, on the validation paper.

3 Programming

■ Flag 20



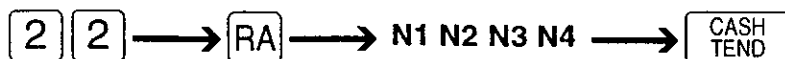
Options	Press:	To:
N1	0	Enable pressing just the #/ST Key.
	1	Disable pressing just the #/ST Key.
N2	0	Enable pressing the #/ST Key immediately after entering numeric Keys.
	1	Disable pressing the #/ST Key immediately after entering numeric Keys.
N3	0	Add PST to any item which includes GST. This setting is valid only when you select "1" for N4.
	1	Add GST and PST to an item separately. This setting is valid only when you select "1" for N4.
N4	0	Do not select the Canadian taxation system.
	1	Select the Canadian taxation system.

■ Flag 21



Options	Press:	To:
N1	0	Print a non-sale total in the clerk report. The non-sale total is a total amount given by the key sequence: entering amount and pressing the #/ST Key two times, which is not added to the sales amount.
	1	Print the tax total in the clerk report.
N2	0	Do not include TAX1 (GST) in TAX4 (PST): Add TAX1 and TAX4 respectively to any item for which TAX1 and TAX4 are set.
	1	Include TAX1 (GST) in TAX4 (PST): Only add TAX4 to items for which both TAX1 and TAX4 are set.
N3	0	Do not include TAX1 (GST) in TAX3 (PST): Add TAX1 and TAX3 respectively to any item for which TAX1 and TAX3 are set.
	1	Include TAX1 (GST) in TAX3 (PST): Only add TAX3 to items for which both TAX1 and TAX3 are set.
N4	0	Do not include TAX1 (GST) in TAX2 (PST): Add TAX1 and TAX2 respectively to any item for which TAX1 and TAX2 are set.
	1	Include TAX1 (GST) in TAX2 (PST): Only add TAX2 to any item for which both TAX1 and TAX2 are set.

■ Flag 22

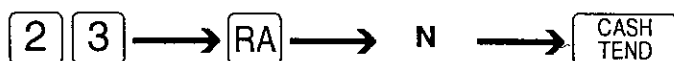


Options	Press:	To:
N1	0	Print only the sales total amount in the operator's training report.
	1	Print all the operator training information in the operator's training report (The maximum programmable PLU will be 800).
N2	0	Exempt food stamp items from taxes. (No tax will be charged on food stamp items.)
	1	Do not exempt food stamp items from taxes. (Tax will be charged on food stamp items.) (For details on sales paid with food stamps)
N3	0	12-hours (AM/PM) time format.
	1	24-hour (Military) time format.
N4	0	Select the Hourly Sales Report.
	1	Select the Each Day Sales Total one month.

NOTE

- For the details for use of Department 13 to 16 Keys for food stamps, see section 4.8, "Food Stamp."

■ Flag 23



Options	Press:	To:
N	0 to 9	Set the number of times a validation can be printed in one sales transaction.

■ Flag 24



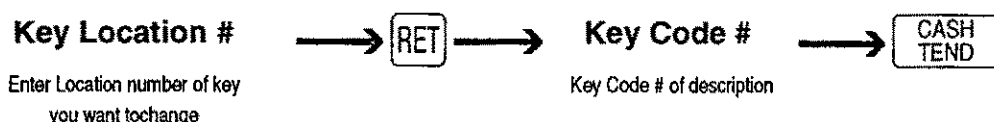
Options	Press:	To:
N	0	Select 24/48 Department Layout.
	1	Select 18/36 Department Layout.

3.11 Programming The Keyboard Layout

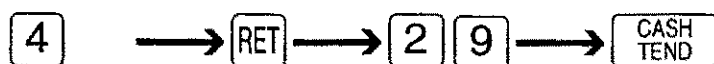
The location of function keys can be changed as desired. For example, if you prefer the PLU Key to be located next to the PLU/RLS Key, this can be easily changed in one easy step. This feature is often called a "free" or open keyboard layout.

This Keyboard Layout Procedure is also used to program special function keys such as Food Stamp Function Keys and Currency Conversion.

1. First, refer to the Keyboard Chart on the next page to find the key and the number assigned to that key.
2. Next, refer to the Key Code Table on Page that lists the key code assigned to each key function.
3. Follow the procedure below to change the key location.



Example: Change the Department 24/48 Key to a second percent discount key (2-%).



Programming of secondary charge key (Charge 2)

The standard keyboard includes one Charge Function Key (CHRG/VALI) which is used to finalize a sales transaction when the customer pays by a credit card. Using the Free Key Layout Function, you can easily designate a "Charge 2" Key which is helpful in separating payments by type of credit card. For example, separate Mastercard sales from Visa, or use the Charge 2 Key to denote an in-house charge.

Example: Change the Check Stub Key to be the Charge 2 Key.



NOTE

Please note in this example that you have eliminated the Check Function Key. You may want to assign the Check Function to another un-used key, i.e., one of the department keys that you are not using.

Keyboard Chart

		RF	JF	ON OFF	6/30 (01)	12/36 (02)	18/42 (03)	24/48 (04)	DEPT SHFT (05)	CAN (06)
		PLU (07)	NTX (08)	TX1 (09)	5/29 (10)	11/35 (11)	17/41 (12)	23/47 (13)	-% (14)	+% (15)
X/ TIME (16)	PLU RLS (17)	7 (18)	8 (19)	9 (20)	4/28 (21)	10/34 (22)	16/40 (23)	22/46 (24)	PO (25)	RA (26)
- (27)	RET (28)	4 (29)	5 (30)	6 (31)	3/27 (32)	9/33 (33)	15/39 (34)	21/45 (35)	CHKS STUB (36)	CHRG VALI (37)
C (38)	VOID (39)	1 (40)	2 (41)	3 (42)	2/26 (43)	8/32 (44)	14/38 (45)	20/44 (46)	TOTL PRNT (47)	#/ST (48)
	EC/ ID (49)	0 (50)	00 (51)	. (52)	1/25 (53)	7/31 (54)	13/37 (55)	19/43 (56)	CASH TEND (57)	

The number in parentheses in the lower right corner of the key is the Key Location Number. For example, the PLU Key is #7, the Non-Tax Key is #8.

Key Code Table For "Free Key Layout"

Key Name	Key Code	Key Name	Key Code
0	01	PLU	36
1	02	RA	37
2	03	PO	38
3	04	RA/+%	39
4	05	PO/-%	40
5	06	#/ST	41
6	07	TOTL PRNT	42
7	08	CASH TEND	43
8	09	CHRG VALI	44
9	10	CHRG 2	45
00	11	CHKS STUB	46
"." (Decimal Point)	12	Dept.1	47
C	13	Dept.2	48
X/TIME	14	Dept.3	49
VOID	15	Dept.4	50
EC/ID	16	Dept.5	51
RET	17	Dept.6	52
NTX	18	Dept.7	53
TX1	19	Dept.8	54
TX2	20	Dept.9	55
TX3	21	Dept.10	56
TX4	22	Dept.11	57
FC (Foreign Currency)	23	Dept.12	58
CAN	24	Dept.13	59
PLU RLS	25	Dept.14	60
DEPT SHIFT	26	Dept.15	61
+%	27	Dept.16	62
-%	28	Dept.17	63
-%2	29	Dept.18	64
-	30	Dept.19	65
-2	31	Dept.20	66
NFS	32	Dept.21	67
FS	33	Dept.22	68
FST	34	Dept.23	69
FS TEND	35	Dept.24	70

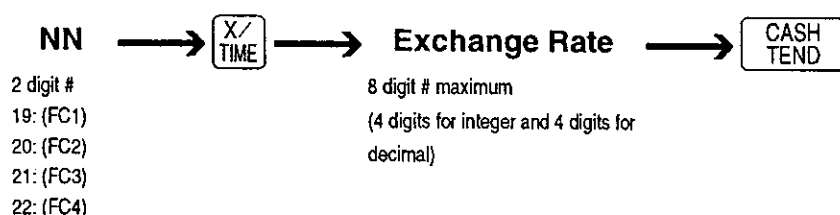
3.12 Currency Conversion

To convert local currency into a foreign currency, the Currency Exchange Key must first be programmed since there is no pre-defined Currency Exchange (FC) Key on the keyboard. Please refer to "Programming Optional keys" on Page

Setting The Exchange Rate

The Foreign Currency Key (FC) can contain up to four pre-set exchange rates. They are stored as values FC1 to FC4.

Exchange rates must be entered as an eight digit number (four digits for the integer and four digits for the decimal portion). Do not press the Decimal Point Key while entering these digits. Also it is not required to enter leading zeroes.



Example: If the current exchange rate between the U.S Dollar and the British Pound is 1.51, enter "15100". Example: Program "15100" to (FC1):

1. If Manager password has been programmed, **TYPE** the **(PASSWORD #)**, then **PRESS** the **(EC/ID)** Key, or if you did not program a Manager Password, go to Step 2.
2. **TYPE (19)**, **PRESS (X/TIME)**, **TYPE (15100)**, then **PRESS** the **(CASH TEND)** Key.

3.13 Programming Other Functions

This section describes how to program various optional functions, such as changing the standard keyboard and setting up passwords.

Disabling the Return and Void Function

You can disable the use of both the **RET** and **VOID** Keys. To disable these keys, do the following:

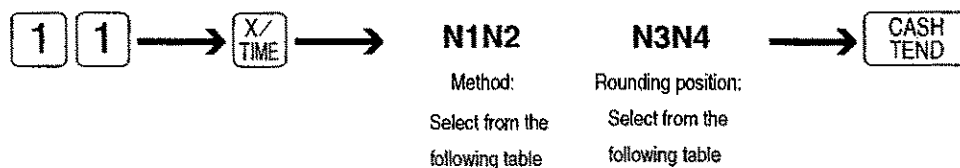
1. Turn the control lock to the "X" position.
2. Press the **1** Key and then press the **VOID** Key.

To re-enable their use, do the following:

1. Turn the control lock to the "X" position.
2. Press the **9** Key and then press the **VOID** Key.

Rounding Method

Your cash register allows you to select the method used for rounding when a sales transaction is finished. There are five methods for rounding: round up, rounding (If the 0.00 is displayed and printed, 0.01 to 0.04 becomes 0.00, 0.05 to 0.09 becomes 0.10), round down, the Swiss method and the Danish method. For information about the Swiss and Danish methods, consult your dealer. Select the rounding method as follows:



Nos.	Enter:	To:
N1N2	00	Select rounding up.
	04	Select rounding.
	09	Select rounding down.
	02	Select the Swiss method of rounding.
	12	Select the Danish method of rounding.
N3N4	10	Round the last digit.
	05	Round the position according to the Swiss method of rounding.
	25	Round the position according to the Danish method of rounding.

NOTE

- You can select the method of rounding to be used in calculating percentages, taxes and multiplications using System Flags described in section 3.10, "Setting System Flags".

Validation Code

You can enter a validation code for the validation paper which allows you to identify it. For example, in chain stores, a unique code can be used for the validating paper in each store. You can enter a maximum of eight digits. The following example shows how to enter "5000" as the code.

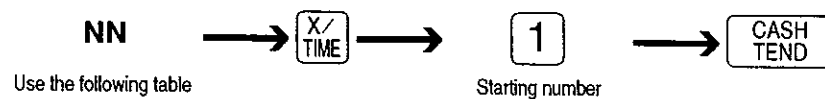
NOTE

- The validation code will only be printed when you select "Print the validation code and amount, in the order with the validation code at the left, on the validation paper." for System Flag 19.



The Starting Number of Reports

You can set the starting number used when printing a full report. There are four types of full report: X1, X2, Z1 and Z2. Once you set it, the number is increased by one each time a full report is printed out. You can enter a maximum of four digits. For more information about X1, X2, Z1 and Z2, see chapter 7, "Reading and Resetting Sales Amounts". The following example shows how to enter "0001" for the starting number.



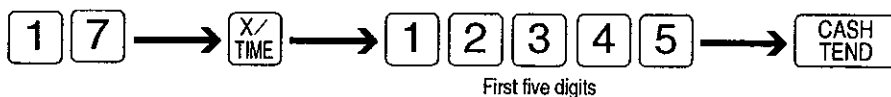
Use the following table

Enter:	To:
13	Set the starting number for the X1 report
14	Set the starting number for the X2 report
15	Set the starting number for the Z1 report
16	Set the starting number for the Z2 report

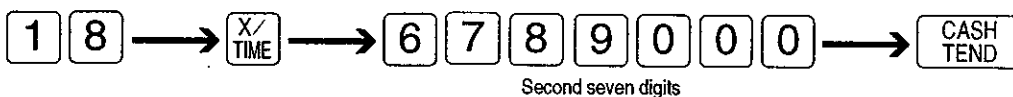
The Grand Total

You can preset the grand total in the memory of your cash register. If you mistakenly initialize the cash register's memory, you can enter a grand total that you have written down. If you enter a grand total, all future sales will be added to it. To enter a grand total, first enter the most significant five digits, then enter the seven least significant digits (12 digits in all). Please note that four digits and then eight digits (also 12 digits) will be printed in sequence on the report generated when you check your program.

a) To enter 12345 for the first five digits, do the following:

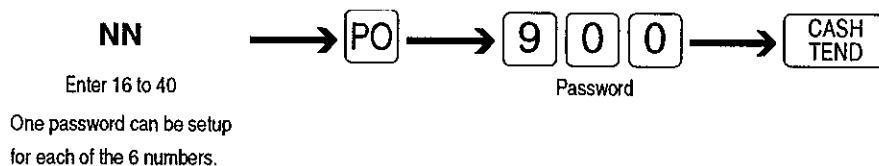


b) To enter 6789000 for the next seven digits, do the following:



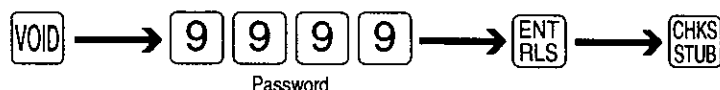
Clerk Password

You can have a maximum of 25 different clerk passwords which will allow operators to operate the cash register in the "R" mode. If you enable the use of passwords, an operator cannot operate the cash register without entering a correct password. Passwords can contain four digits. In the "R" mode, an operator can operate the cash register after entering a valid password and pressing the **EC/ID** Key.

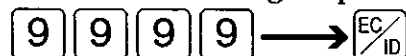


Manager's Password for "P" (program) Mode

You can enter a manager's password which will allow you to operate the cash register in the "P" mode. After you program in a manager's password, you cannot operate the cash register in those modes without entering the correct password. The password can contain four digits. In the "P" mode, you can operate the cash register after entering a valid password and pressing the **EC/ID** key. If you don't need to perform operations in the "P" mode, you can still operate the cash register by pressing the **EC/ID** Key and entering a valid clerk password.



To access the manager's password, the key sequence is:



Password for Generating X Reports

You can enter a password for printing reports in the "R" mode. If you program a password, a operator can print reports, without changing to the "X" mode, by entering the password. In the "X" mode, you can print the "X" reports by entering the password and pressing the **CHRG/VALI** Key. The password can contain four digits. It can only be used to print "X" reports.

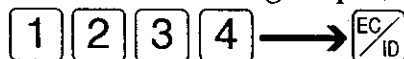
For more information about X1, X2, Z1 and Z2 reports, see chapter 7, "Reading and Resetting Sales Amounts".



"X" and "Z" Mode Manager Password



To access the manager's password, the key sequence is:



NOTE

If the Manager Password is Programmed as (0000), the machine will not acknowledge this password.

CAUTION

Please write your passwords down in a safe place. If the passwords are forgotten, a FULL SYSTEM CLEAR procedure will be necessary. A Full System Clear will erase all transaction data and programming. For details on the Full System Clear see Page .

3.14 Checking the Contents of Your Programming

When you have finished all the programming you need to do, or anytime while you are programming the cash register, you can check the contents of your program. To check the contents, request a report which prints out the programming contents.

You can issue four types of reports to check the contents of your program. The following receipts are examples of these report types. Before trying to print one of these reports, make sure the control lock is in the "P" position.

An example of a report for checking system flags, departments, [-], [-%] and [%] Keys assignments and settings, tax settings, etc.

Press the **CASH/TEND** Key to print out the following report:

98-12-11	Date	01 000000	Department No.
	Flag No.	*1.00a	Function flag
	Option	02 000000	Unit price
		*5.00a	
01 6		18 000000	
02 0		*1.50a	
03 5		000 +%	Function flag for [%] key
04 5		005.0000	[+%] key rate
05 0000		000 -%1	Function flag for [-%] key
06 0010		006.2500	[-%] key rate
07 1111		000 -%2	Optional [-%] key
08 0010		000.0000	Tax-exempt amount
09 0010		00400 0 1x1	Tax rate
10 0000		07.5000	
11 0001		00000 1 1x2	
12 0000	System Flags	05.0000	
13 0100		00000 2 1x3	
14 0011		**	Tax table
15 0011		00000 0 1x4	
16 0000		05.0000	
17 0000		00 1000	Transaction No.
18 0000		950 0000	Rounding
19 0000		0000 1	Maximum PLU No.
20 0000		*0.50-	[-] key
21 0000		0000 2	Optional [-] key
22 0010		*0.00-	
23 0		14-10-11	Machine No.
24 0		1001 2	Time
			Clerk No.
			Transaction No.

An example of a report for checking the starting report number, passwords, currency exchange key, optional keys etc.

Press the **CHRG/VALI** Key to print out the following report:

98-12-11			
	0005X	1	Starting X1 report No.
	0001X	2	Starting X2 report No.
	0002Z	1	Starting Z1 report No.
	0001Z	2	Starting Z2 report No.
01	0001		
02	0002		
03	0003		
04	0004		
05	0005		Clerk password
06	0006		
07	0007		
21	0021		
22	0022		
23	0023		
24	0024		
25	0025		
	0099X		X report password in "R" mode
	1234P	1	X report password
	9999P	2	Manager's password
	00015100	EX 1	
	00000000	EX 2	
	00000000	EX 3	Exchange rate
	00000000	EX 4	
	00005000	#	Validation No.
ST	1234	*	
56870480	*		Current grand total
14-15	1.1		
1001	1 No		

3 Programming

An example of a report for checking PLU settings

Press the **PLU** Key to print out the following report:

98-12-11		PLU code
PL	1 01	Department No. the PLU belongs to
	*15.00a	Unit price
PL	2 02	
	*4.00a	

PL	15	03
	*15.00a	
	14-16	11
	1001	1 No

An example of a report for checking the Tax table settings

Enter the tax number which tax table is assigned to, press the **PO** Key and then press the **TOTL/PRNT** Key to print out the following report:

98-12-11		Tax No.
0243	TX 3	First minimum break value
0200	TX 3	Difference between first minimum break value and the last value within the first regular cycle
0007	TX 3	Difference between first tax amount and the last amount within the first regular cycle
0015	TX 3	Starting tax amount
23	TX 3	
25	TX 3	
25	TX 3	
25	TX 3	
30	TX 3	Value for the irregular cycle
36	TX 3	
34	TX 3	
30	TX 3	
29	TX 3	
28	TX 3	
29	TX 3	
29	TX 3	Value for the first regular cycle
28	TX 3	
29	TX 3	
28	TX 3	
14-17 11		
1001 1 No		

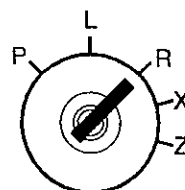
4 Cash Register Operation

This chapter presents examples of cash register operation and shows example receipts.

4.1 Before Operating Your Cash Register

Before operating your cash register, you must do the following:

- Make sure all the programming you need to do is complete. For various programming instructions, see Chapter 3, "Programming."
- Make sure that the receipt and journal paper rolls are set in the correct positions. See section 2.3, "Installing and Removing a Paper Roll."
- To select the "Register mode," insert the manager's key or operator's key into the control lock and turn it to the "R" position. For more information about the control lock, see the "Control Lock" in section 1.3, "Part Names and Functions".



- If the clerk password function has been enabled, enter the password using the numeric keys and press the **EC/ID** Key. If you don't, an error code will appear.
- If necessary, you can turn off receipt printing. To turn it off, press the Receipt ON/OFF Key. A period "." will appear on the display. While the "." is displayed, receipt printing is turned off.

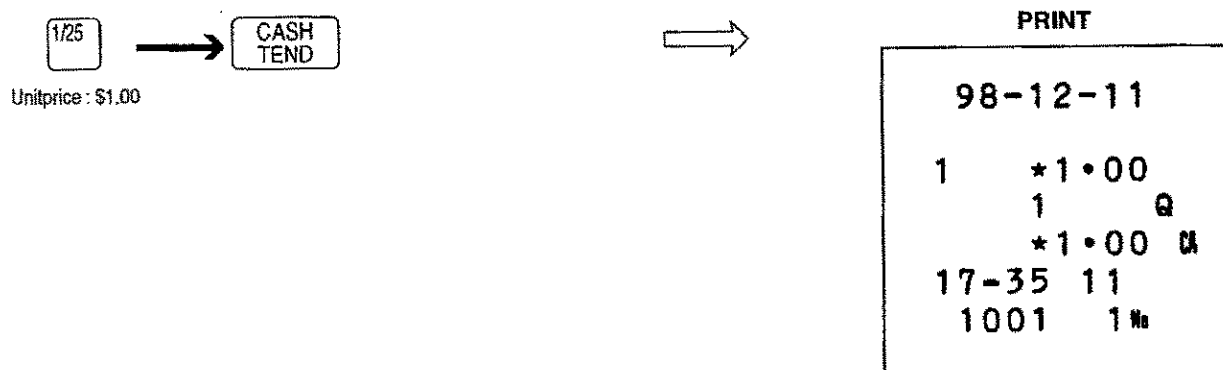
If an error code appears during operation, press the **C** Key to clear it and start the operation again. If the cash register hangs (won't accept any key presses), reset the cash register computer system as described in section 3.1, "Before Programming."

4.2 Basic Operation

This section shows how basic cash register operation are performed: selling a single item, multiple item sales, etc.

Single Item Entries

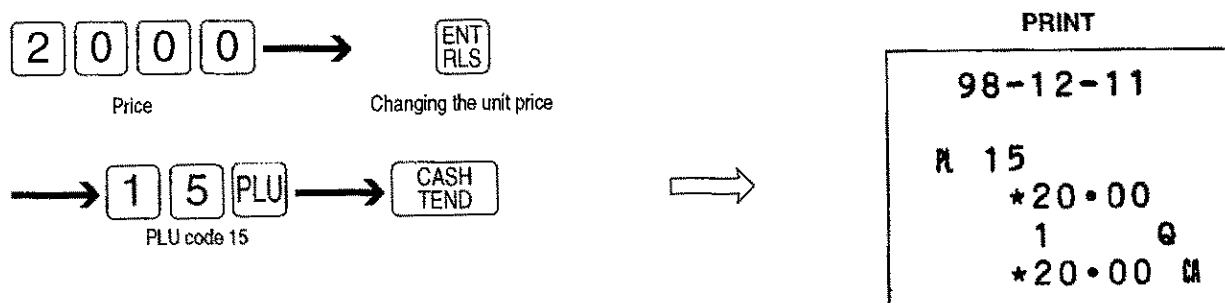
When you are registering a department item, press the department key or enter the price and then press the department key. If the preset unit price for the department is the correct price for the item, you do not need to enter the price. The following example shows that you are selling a Department 1 item for the unit price of \$1.00.



NOTE

- When you want to register items for Departments 17 to 32, press the **DEPT/SHIFT** Key before pressing the Department Key you need. A period "." will appear on the display. While the "." is displayed, the department keys will enter the price for items in Departments 17 to 32.

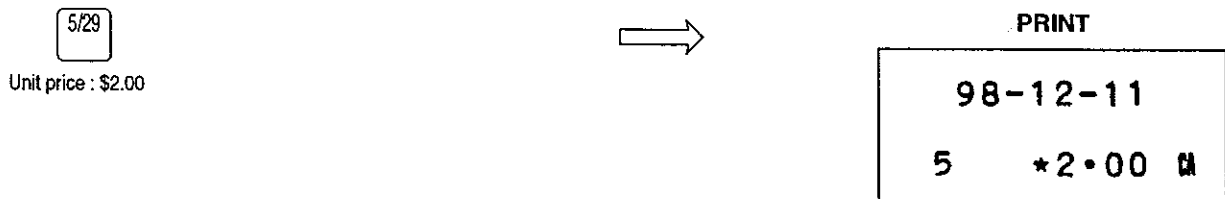
When you sell an item that has a PLU code, enter the PLU code and press the PLU Key. The unit price which is programmed for the code is automatically recalled. You can also temporarily change the unit price of a PLU code. To change the unit price, first enter the price and press the **ENT/RLS**. Then enter the PLU code and press the PLU Key. The following example shows how you sell an item PLU code 15 for \$20.00 which is not the unit price.



Single-Item Cash Sale

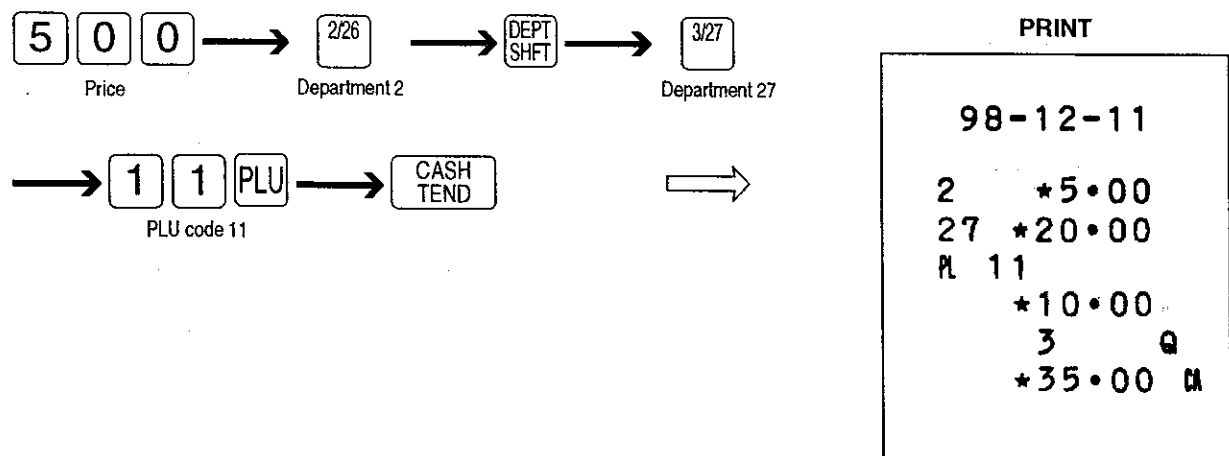
The single-item cash sale is a function which allows you to shorten the number of key strokes when registering a single item for a cash sale. To register an item as a "single-item cash sale", just press the department key. When you press a department key which has a "single-item cash sale" function, the transaction ends automatically without pressing the **CASH/TEND** Key. This function provides quick operation if your store sells a lot of items for cash. To use this function, the function flag must be set for the department. See "Setting Function Flags" in section 3.5, "Department Programming."

The following example shows how you sell a Department 5 (Unit price : \$2.00) item with the "Single-item cash sale" function.



Multiple Item Entries

You can register a number of items in a single transaction. The following example shows how you sell a Department 2 item with a price of \$5.00, a Department 27 item for the unit price of \$20.00, and an item with PLU code 11 when PLU code 11 is programmed for the unit price of \$10.00.

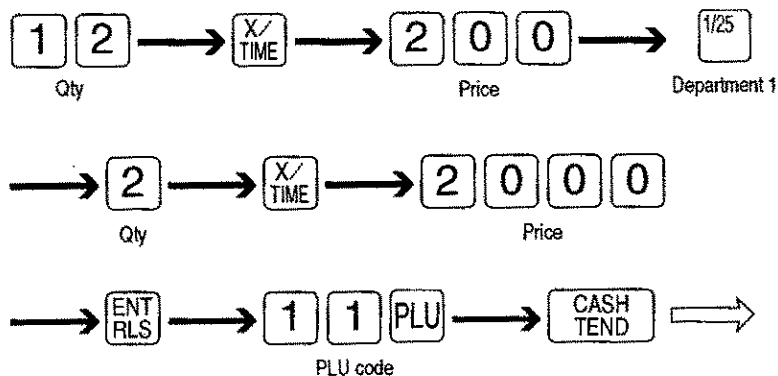


4 Cash Register Operation

Multiplication Entries

Your register can perform multiplication to register multiple identical items.

The following example shows how you sell 12 of the same item for \$2.00 each and 2 of the same item with a PLU code 11.



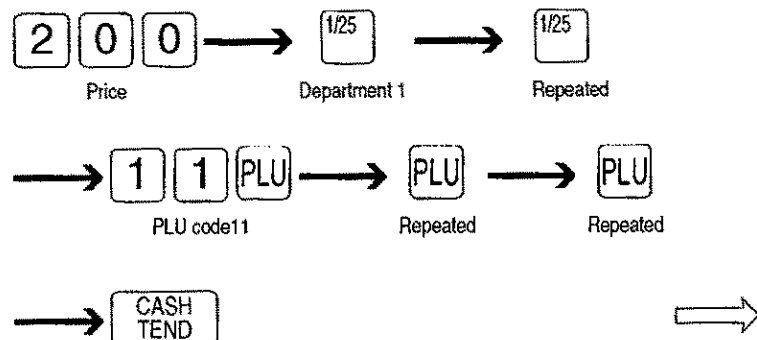
PRINT			
12		Q	
	*2.00		
1	*24.00		IX
2		Q	
	*20.00		
PL 11			
	*40.00		
14		Q	
	*2.64		IX
	*66.64		CH

NOTE

- If the system flag has been set for the "First enter unit price, then enter quantity" option, first enter the unit price, press the **X/TIME** Key, and then enter the number of the item. To select the order in which information is entered for multiplication, see "Flag 1" in section 3.10, "Setting System Flags."

Repeated Entries

Your register allows you to perform repeated entries. The following example shows how you can sell 2 of Department 1 items for \$2.00 each and 3 items with PLU code 11.



PRINT			
1	*2.00		
1	*2.00		
PL 11			
	*10.00		
PL 11			
	*10.00		
PL 11			
	*10.00		
5		Q	
	*34.00		CH

Displaying the Subtotal

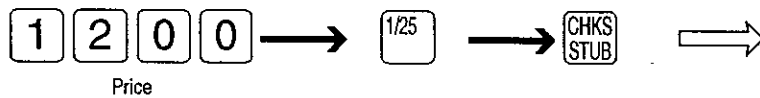
You can display the current subtotal during the sales transaction. Just press the **#/ST** Key.

4.3 Check and Charge

This section explains how to operate the cash register when you do not receive cash for the sale.

Check Sale

You can register sale paid by check with the **CHKS/STUB** Key. The following example shows how you enter the sales information when the customer pays by check for a \$12.00 item from Department 1.

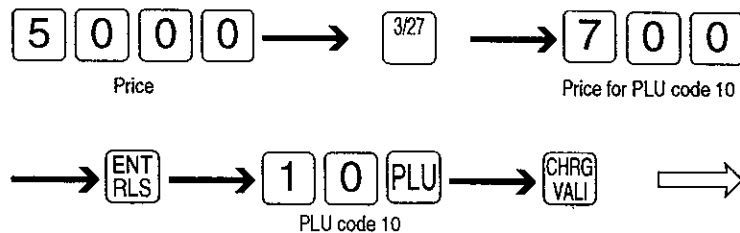


PRINT

1	*12.00	
1		Q
	*12.00	TX

Charge Sale

When your customer charges his purchase, you can enter the sales amount charged by the customer with the **CHRG/VALI** Key. The following example shows that the customer is charging a \$50.00 item from Department 3 and a \$7.00 item with PLU code 10.

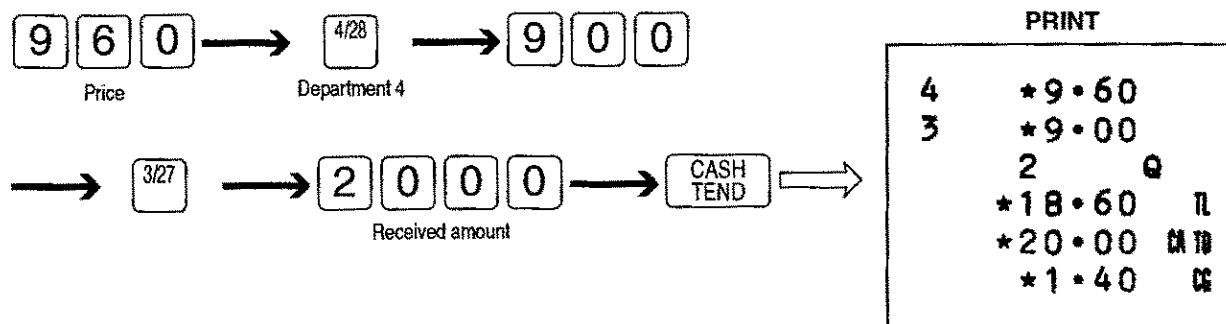


PRINT

3	*50.00	
PL 10		
	*7.00	
2		Q
	*57.00	CH 1

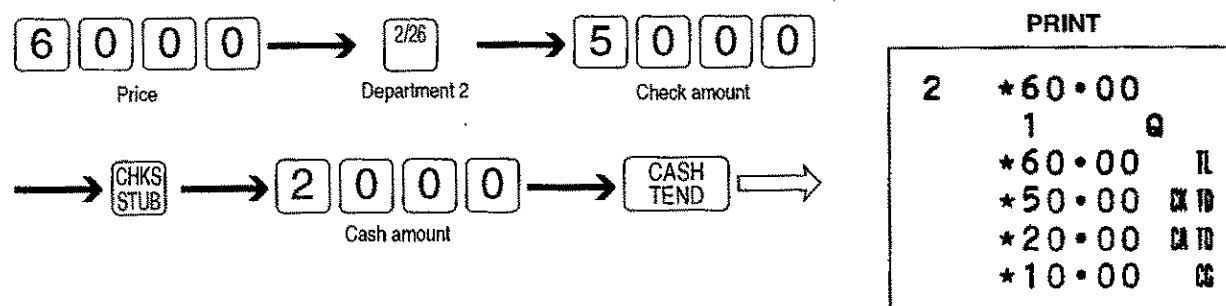
4.4 Change Calculations

Your register can calculate the change due when the amount received from a customer is more than the sales amount. The following example shows how you enter an amount of \$20.00 received from a customer when you are selling an item from Department 4 for \$9.60 and Department 3 for \$9.00.



4.5 Tendered Amount Entries

Your register allows you to enter the amount received from a customer. You can enter each of the amounts paid by cash, check or charge in a single sales transaction. The following example shows that the customer gives the operator a \$50.00 check and a \$20.00 bill for a \$60.00 total amount.



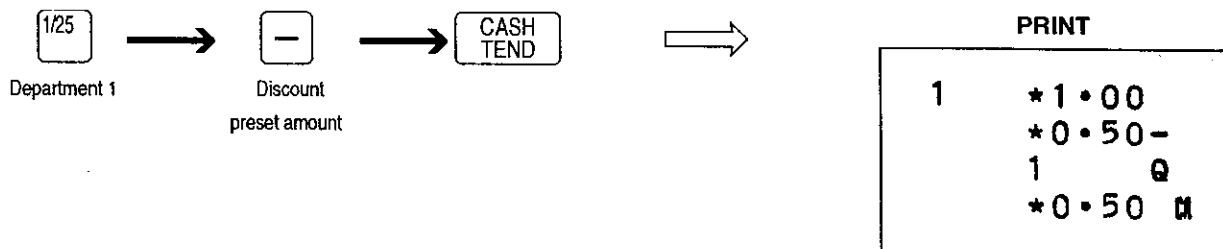
The cash register will show \$10.00 as the change to be given to the customer and the receipt will show a payment of \$50.00 by check and \$10.00 by cash.

4.6 Discounting with the [-] Key

This section describes how to operate the cash register when discounting a certain amount from the price of an item. You can either use the preset discount amount or you can enter the amount of the discount from the keyboard. For instructions about setting the discount amount, see section 3.8, "Programming the [-] Key, [%] Key, and the [-%] Key."

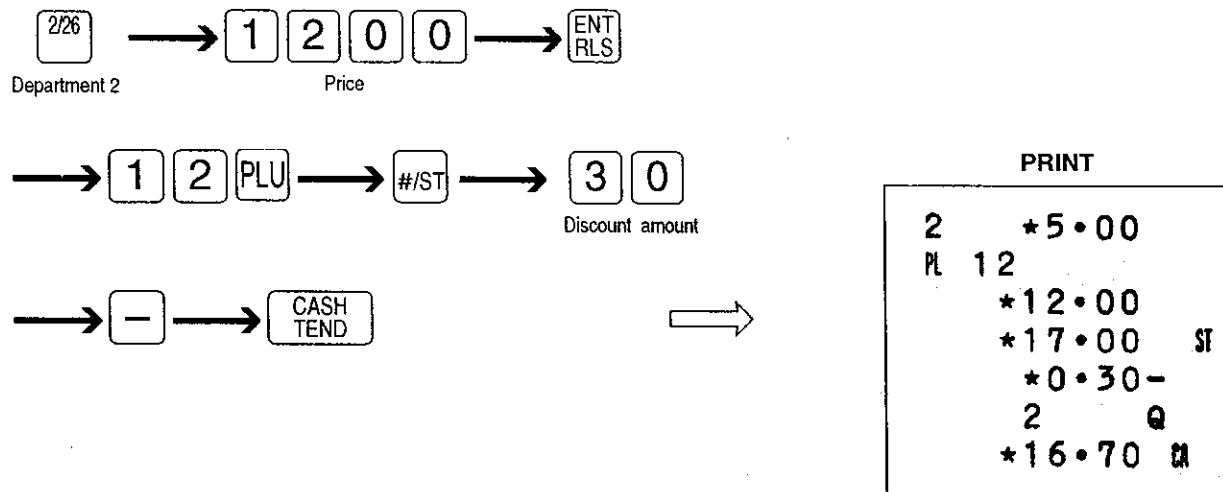
For Each Item

When you want to discount a preset amount from an item, do the following.



For the Total

When you want to discount an amount from the total amount, do the following.



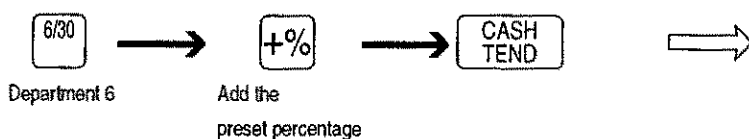
4.7 Using the [%] Key and [-%] Key

This section describes how to operate the cash register when giving a percentage discount or adding a percentage to the price of an item. You can use the preset percentage or you can enter the percentage to use with numeric keys. For instructions about setting discount percentage amount, see section 3.8, "Programming the [-] Key, [%] Key, and the [-%] Key."

4 Cash Register Operation

For Each Item

When you want to add a preset percentage to the price of an item, do the following.

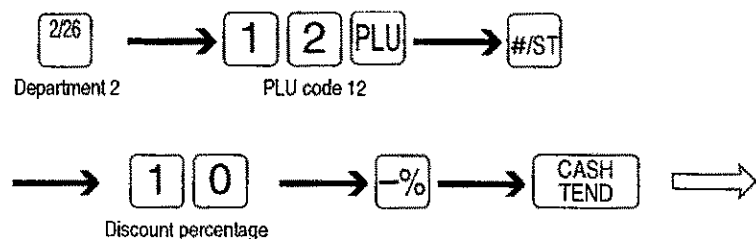


PRINT

6	*30.00	
5		+%
	*1.50	
1		Q
	*31.50	M

For the Total

When you want to discount a percentage from the total amount, do the following.



PRINT

2	*5.00	
PL 12		
	*8.50	
	*13.50	ST
10		-%
	*1.35-	
2		Q
	*12.15	M

4.8 Food Stamp

This section explains how to register items purchased with food stamps. If the customer will be giving you food stamps for the sales amount, you must use a Department Key set for food stamp items to register the sales. To set a department to be used for food stamp items, see "Setting Function Flags" in section 3.5, "Department Programming."

You must also program the following keys described in the table shown on the next page to register a food stamp sales transaction. To program these keys, set the system flag as described in "Flag 22" in section 3.10, "Setting System Flags." They are automatically programmed to be used as the corresponding keys shown in the following table, once you have set the system flag.

Key	Used as:	Function
21/45	NFS Key	Enters the price for an item in a department which is set as a food stamp item, as a non-food stamp item.
22/46	FS Key	Enters the price for an item in a department which is not set for food stamps, as a food stamp item.
23/47	FST Key	Displays food stamp subtotal amount before you enter the amount of food stamps received.
24/48 Key	FS TEND received.	Finalizes the sales transaction after entering the amount of food stamps

NOTE

- You can use these keys for food stamp sales transaction only when these keys are set for Departments 21 to 24, not when they are being used for Departments 45 to 48.

Food stamp sales transaction

To register a food stamp sales transaction, first perform the normal sales transaction operations, then press the **FST** Key to display the food stamp subtotal amount, enter the amount of food stamps received and press the **FS TEND** Key. The following example shows that you received \$10.00 worth of food stamps.

2 2 5 → 9/33 → 7 0 0 → 11/35

→ **FST** → 1 0 0 0
 To display the subtotal Food stamp amount

→ **FS TEND** →
 Finalize the transaction

PRINT

```

9      *2.25 FS
11     *7.00 FS
2             Q
        *9.25 TL
        *9.25 FS TL
      *10.00 FS TD
        *0.00 FS CG
        *0.75 CG
  
```

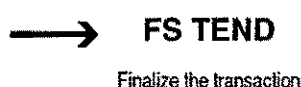
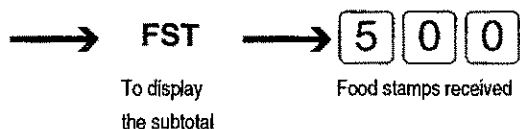
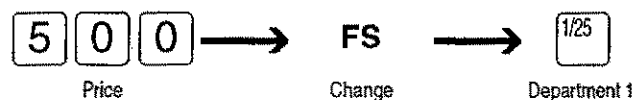
NOTE

- The change due marked with "*CG" on the receipt is the change to give a customer in food stamp and the one marked with "CG" is the change to give in cash (cents).

Food Stamp Shift

The department type can be changed between two possibilities: set for food stamp items or normal items. The change is made by pressing the **NFS** or **FS** Key before pressing the department key. The following example shows how you change the type for Department 1, which is not a food stamp item into a food stamp item.

4 Cash Register Operation



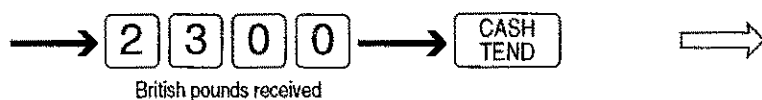
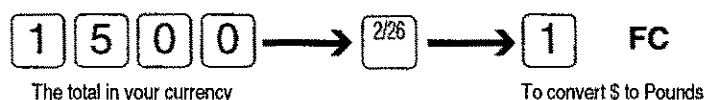
PRINT

1	*5.00	FS
1		Q
	*5.00	TL
	*5.00	FS TL
	*5.00	FS TB
	*0.00	FS CG

4.9 Currency Conversion

This section explains how to convert your currency into a foreign currency. To convert your local currency into a foreign currency, use the programmed currency exchange key: the **FC** Key. To program the **FC** Key, see "Optional Keys" in section 3.11, "Programming Other Functions."

The **FC** Key can contain up to four preset exchange rates. They are stored as values FC1 to FC4 inside this register. To use one of these rates, enter the rate number and press the **FC** Key. For example, to use FC1 rate, enter "1" and press the **FC** Key. To set a currency exchange rate, see section 3.9, "Setting the Exchange Rate." The following example presupposes that you normally enter your sales as US\$ in your store, and that you need to know how many British pounds your customer must pay. It is also assumed that the current exchange rate between the US\$ and the British pound is "\$1.51" and that the rate is stored in FC1.



PRINT

2	*15.00	
1		Q
	*15.00	TL
1 *		
	*22.65	*
	*23.00	* TB
	*0.23	CG

NOTE

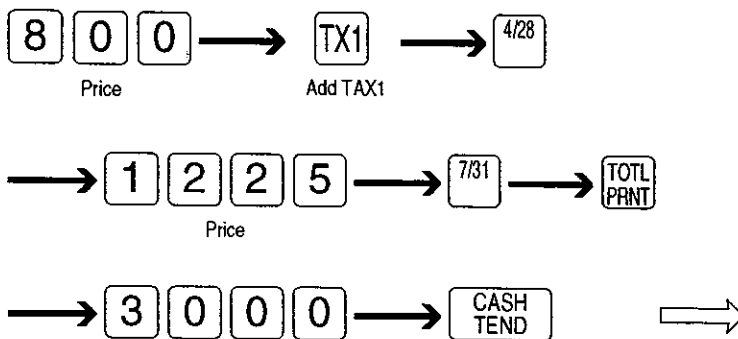
- The change due is calculated and displayed in your local currency.

4.10 Tax Calculations

This section shows examples of selling items to which tax is added. For details about programming taxes, see section 3.7, "Tax Programming."

Add-on tax system

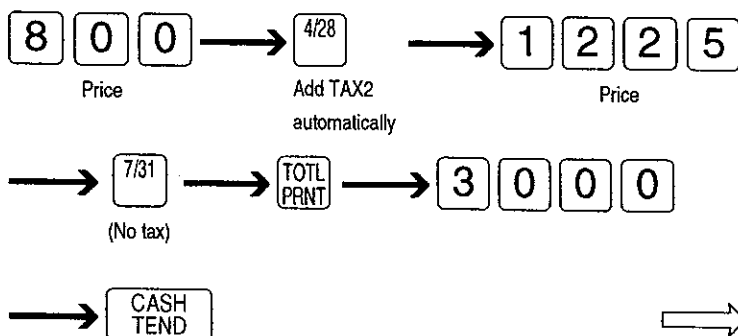
The following example shows how you sell a Department 4 item by manually adding TAX1 (Set for 7.5%) to its price and a Department 7 item to which you add TAX4 (Set for 5%).



PRINT			
4	*8.00	1	
7	*12.25	4	
2		Q	
	*8.00	1	
	*0.60	TX 1	
	*12.25	4	
	*0.61	TX 4	
	*21.46	TL	
	*30.00	CASH	
	*8.54	CG	

VAT system

The following example shows how you sell a Department 4 item which has TAX2 (Set for 5%) included in the price actually shown on the receipt and a Department 7 item which does not.

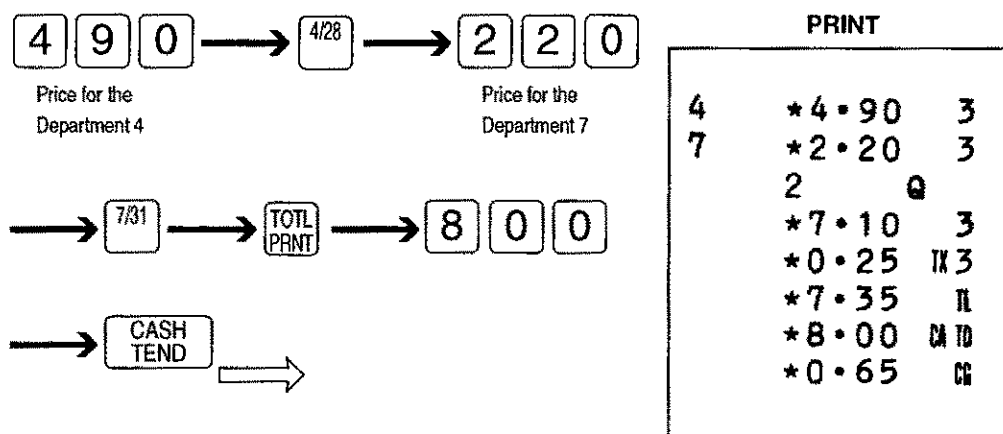


PRINT			
4	*8.00	2	
7	*12.25		
2		Q	
	*8.00	2	
	*0.38	TX 2	
	*19.87	*TL	
	*20.25	TL	
	*30.00	CASH	
	*9.75	CG	

4 Cash Register Operation

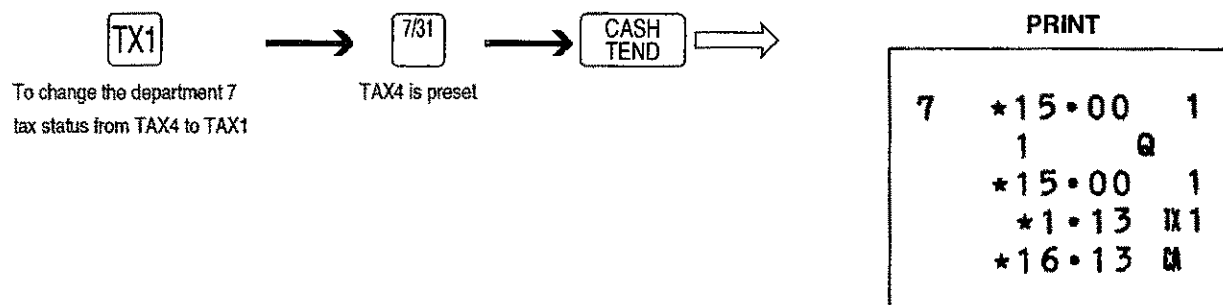
Tax table system

The following example shows how you sell a Department 4 item (TAX3 is added) and a Department 7 item (TAX3 is added). It is supposed that the TAX3 has been entered the Tax table shown on "Entering a Tax Table" in "3.7 Tax Programming" section.



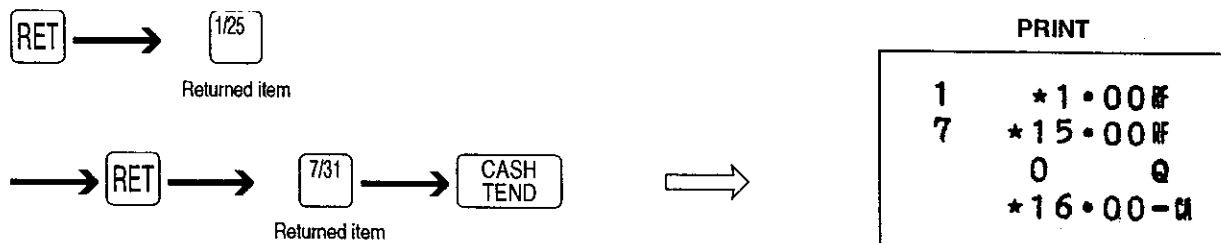
Tax Shift

You can change the current tax status of a department temporarily with the **NTX**, **TX1** or **TX2** Key. When you use the **NTX** Key, the department to which you have added a tax will be nontaxable. When you use the **TX1** or **TX2** Key, only **TAX1** or **TAX2** will be added to the department. If some taxes have been added to the department, they are not calculated. When you finish this tax shift transaction, the department's tax status will be reset. The following example shows that you change the tax status of Department 7 (TAX4).



4.11 Receiving a Returned Item

This section describes how to operate the cash register when your customer return an item which he or she has bought. If you register the item returned, it will be printed on the reports as a returned item and subtract the amount from the total sales amount. To register the returned item, do the following:

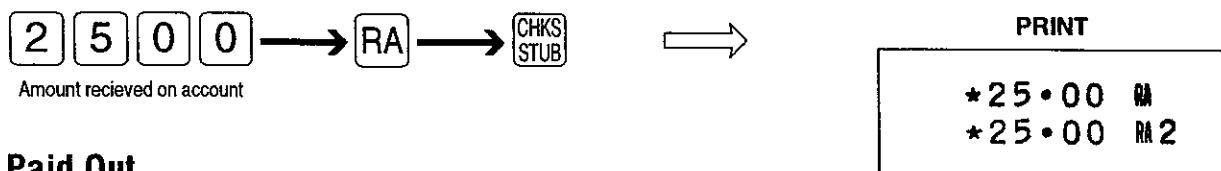


4.12 Received on Account and Paid Out

This section describes how to operate when you enter an amount received on account (RA) and a non-sales amount removed from the drawer (PO). For example, you can enter the amount which has been charged by a customer with the **RA** Key. And you can enter an amount of petty cash when the store opens with the **PO** Key. The RA or PO is entered either as cash or as check according to the media you received or paid. When the RA or PO is entered as cash, the mark "I" will appear at the right of the mark "RA" or "PO", and as check, "II" will appear.

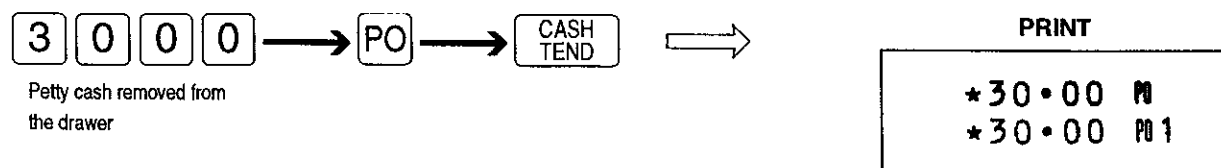
Received on Account

The following example shows how you register the \$25.00 received on account by check.



Paid Out

The following example shows how you register the \$30.00 petty cash removed from a drawer.

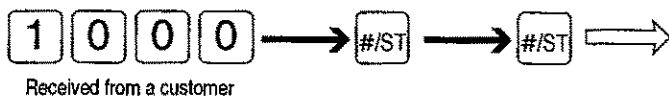


4.13 Changing Money and Opening the Drawer

This section explains how you operate when changing money. This section describes how to open the drawer without making a sale.

Changing Money

When a customer requests change, you can enter the amount received from the customer. The amount will be printed in the reports but it is not added to total sales amount.



PRINT

*10.00	NS
*0.00	NS

Opening the Drawer

You can open the drawer without making a sale. To open the drawer, just press the #/ST Key.



PRINT

*0.00	NS
-------	----

NOTE

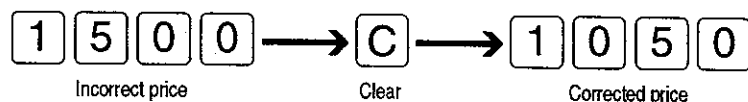
- You can also open the drawer with the lever on the bottom of the drawer. See section 8.2, "Opening the Drawer Manually."

5 Making Corrections

This chapter explains how to make corrections to sales information that has been entered or registered.

5.1 Correcting Numbers That Have Been Entered

This cash register allows you to correct the numbers you enter with the numeric keys. To correct a wrong number, press the **C** Key immediately after entering the number. The following example shows how you correct a mistakenly entered amount.



PRINT

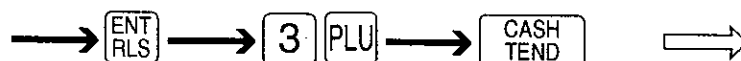
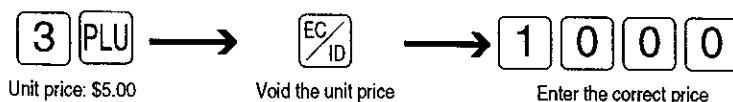
1	*10.50	
	1	Q
	*10.50	CA
10-45	11	
1041	1	CA

NOTE

- You cannot correct the number with the **C** Key after the department has been pressed.

5.2 Voiding the Last Entry

You can void an item you have registered immediately after you register it. To void the mistakenly registered item, press the **EC/ID** Key immediately after registering the item. The following example assumes that you entered a PLU code using the \$5.00 of unit price when you wanted to change price. It shows how to void the registered unit price and enter the price you want.

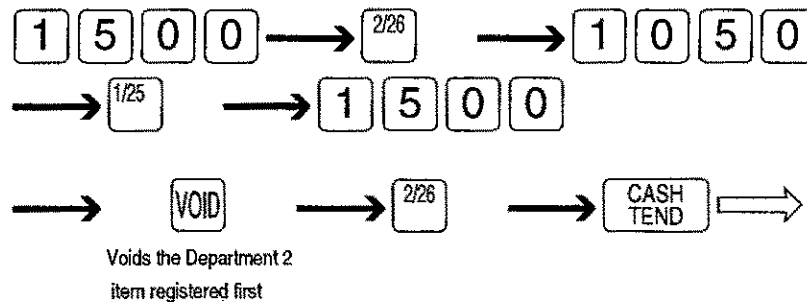


PRINT

PL	3	
	*5.00	
PL	3	
	*5.00	VD
PL	3	
	*10.00	
	1	Q
	*10.00	CA

5.3 Voiding Earlier Entries

You can also void items you have registered prior to the last item. To void items entered earlier, use the **VOID** Key. The following example shows how to void the first item registered during this transaction.



PRINT

2	*15.00
1	*10.50
2	*15.00 VD
1	Q
	*10.50 CA

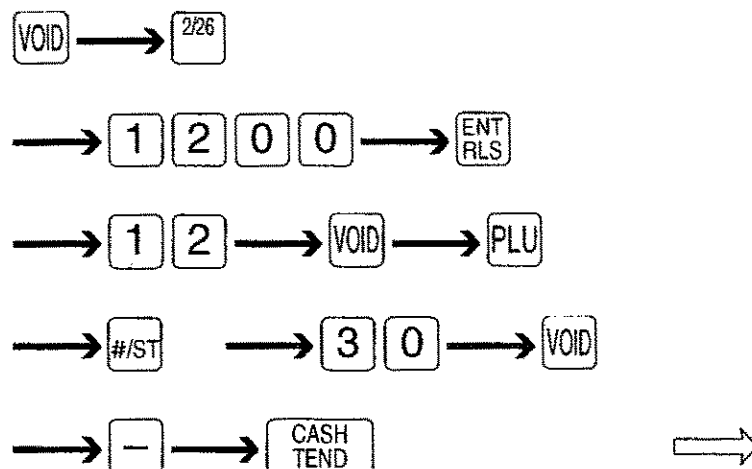
5.4 Voiding a Sales After the Transaction Has Been Finalized

You can void a sales transaction registered earlier. To void the earlier sales transaction, use the **VOID** Key. The following example shows how you void the sales shown by the receipt "A".

A)

PRINT

2	*5.00
PL 12	
	*12.00
	*17.00 ST
	*0.30-
2	Q
	*16.70 CA



PRINT

2	*5.00 VD
PL 12	
	*12.00 VD
	*17.00- ST
	*0.30 VD
2	-Q
	*16.70-CA

6 Special Functions

This chapter describes various special functions of this cash register. The settings for these functions are described in section 3.10, "Setting System Flags."

6.1 Validation Printing Function

Your cash register allows you to do validation printing. Validation printing is a function which prints the sales amount on the validation paper immediately after you finalize a sales transaction. This function also prints the date, time and so on. So, you can use this function for validation of the sales you have registered, validating parking tickets, and so on. The printing format of the validation printing depends on the setting for Flag 19, shown in section 3.10, "Setting System Flags."

CAUTION

- Do not try to validate a paper that is narrower or shorter than the validation slot. The paper will jam in the machine.

To print the sales amount on the validation paper:

1. Perform the normal sales transaction operations.
2. Insert the paper straight, all the way into the validation slot.
3. Press the **CHRG/VALI** Key to print the contents of the transaction.

1 981211

★12•00

NOTE

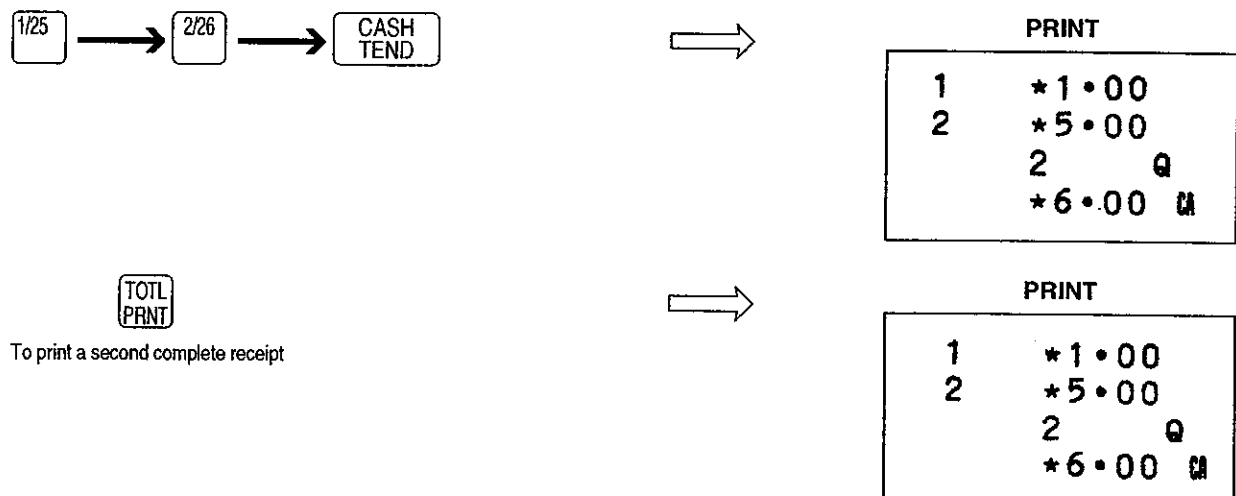
- You can limit the number of times a validation can be printed for a single transaction with Flag 23, in section 3.10, "Setting System Flags."

6.2 Printing a Second Receipt

Your cash register allows you to print a second receipt if the system flags have been set. The second receipt is a receipt which is issued immediately after the first receipt (normal receipt) is printed. There are two types of second receipt: a complete receipt and a stub receipt. A complete receipt shows all of the same sales information as the first one. A stub receipt only shows the total amount of the sales. To issue a second receipt, set Flag 9 in section 3.10, "Setting System Flags."

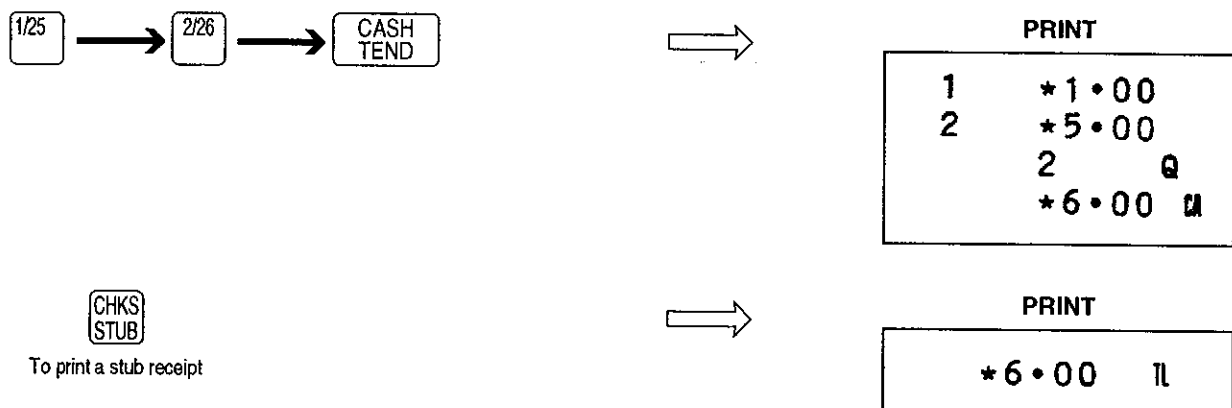
A Second Complete Receipt

To issue a second complete receipt, press the **TOTL/PRNT** Key after finalizing the sales. The following example shows how you issue a second complete receipt.



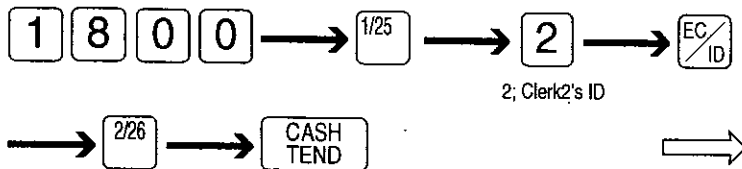
A Stub Receipt

To issue a stub receipt, press the **CHKS/STUB** Key after finalizing the sales. The following example shows how you issue a stub receipt.



6.3 Changing Clerks During Operation

Your cash register allows one operator to leave and another to take over in the middle of a sale. If Flag 10 has been set to "Clerk number (ID) change during operation", the new operator can input another clerk ID and complete the sales. The sales information will all be printed out on one receipt for the customer, but the clerk key information will be stored in separate files and will show up on separate clerk reports. The following example shows that a operator Clerk2 to take over operations from the previous operator who had Clerk1.



PRINT

1	*18.00	
2	*5.00	
	2	Q
	*23.00	M
13-52	11	
1056	2	

NOTE

- The clerk number of the operator who finalizes the transaction will be printed on the receipt.

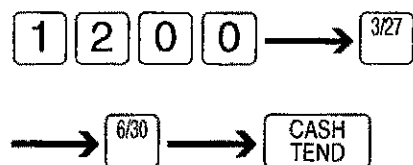
6.4 Training Mode

This cash register allows you to train a operator to operate the cash register. To train a operator, first enter the training mode and then let the operator do simulated operations. When the training is finished, be sure to return to the normal operation mode.

To go to the training mode:

1. Turn the control lock to the "X" position.
2. Enter "11" and press the **CHRG/VALI** Key.
3. Turn the control lock to the "R" position.
4. Start training.

The following example shows a simulated operation in training mode and the receipt printed by these operations.



PRINT			
3	*	12.00	
6	*	30.00	
		2	Q
	*	42.00	CH
13-53		11	
1057		2 No TR	

NOTE

- The training symbol "TR" will appear between the machine number and the clerk number on the receipt.

To leave the training mode:

1. Turn the control lock to the "X" position.
2. Enter "99" and press the **CHRG/VALI** Key.
3. Turn the control lock to the "R" position.
4. Resume normal operation.

7 Checking and Resetting the Sales Information

This chapter describes how to check and reset the sales information and shows sample reports.

7.1 Overview of Checking and Resetting Sales Information

You can review daily sales information. There are two methods for checking this information: issue one of the seven types of reports (See Table "A") or you can display eight different totals without issuing a report (See Table "B"). The daily report for checking sales is called the "X1" report. To issue an X1 report, while in the "X" mode, press the key corresponding to the report you want, as shown in the table.

You can also check the information covering a certain period of time, such as by the week or by the month. To check the information from a certain period, issue an "X2" report (See Table "A") while in the "X" mode. Press the **ENT/RLS** Key and the corresponding key, as shown in the table.

After checking the sales information, you can reset it. In the "Z" mode, you can reset the daily and a certain periods of statistics. Then issue reports, such as the "Z1" (Daily) report and the "Z2" (fixed interval) reports. To reset them, in the "Z" mode, do the same way as issuing X1 and X2 reports (See Table "A").

Table "A" below shows the types of report, the keys used to issue them, the symbols printed on each one, and the contents of each type. You cannot print any report marked with a dash "-".

A)

Type	Keys	Symbols for each report:				Information contents:
		X1	X2	Z1	Z2	
Full	CASH/TEND	X1...1	X2...1	Z1...1	Z2...1	All of the sales information such as the total sales amount, department sales, taxes, etc.
PLU	PLU	X1...2	X2...2	Z1...2	Z2...2	The PLU sales information
Hourly	X/TIME	X1...3	-	Z1...3	-	The sales information for each hour
Cash in Drawer	PO	X1...4	X2...4	-	-	Information about the cash and check in the drawer
Clerk	CHKS/STUB	X1...5	X2...5	-	-	The sales information for each clerk
Group	One of the Department Keys	X1...6	X2...6	-	-	The sales information for each group
Training	TOTL/PRNT	X1...0	X2...0	Z1...0	Z2...0	The operation information from the training mode

The following table "B" shows the types of total amounts that can be displayed.

B)

Press:	To display:	Press:	To display:
1 and X/TIME	Net sales total	5 and X/TIME	Non-sales item total
2 and X/TIME	Cash total	6 and X/TIME	RA total
3 and X/TIME	Change due total	7 and X/TIME	PO total
4 and X/TIME	Check total	8 and X/TIME	Cash in drawer total

7.2 Sample Reports

The following examples show each type of X1 report. The printing format for each report can be set with the system flags described in section 3.10, "Setting System Flags."

■ Full report

To issue this report, press the **CASH/TEND** Key while in the "X" mode.

98-12-11	—	Date
	—	Report symbol No.
*****1***X 1	—	Symbol for the read mode
1	27	Department No.
*119.50	—	Number of sales for department 1
2	18	Total sales amount for department 1

26	7	
*100.00		
79		Gross total number of sales for departments
*683.85	TL	Gross total sales amount for departments

0		
*512.50	TL	Total nontaxable amount
1		Tax No.
*79.00	TX TL	Taxable amount for the TAX 1
1	9	Number of tax transactions for the TAX 1
*5.93	TX	Total tax amount for the TAX 1
3		
*9.60	TX TL	
3	1	
*0.34	TX	
4		
*80.75	TX TL	
4	9	
*4.02	TX	

*747.64	TL	Gross total
- % 1		[-%] key (for the total)
1		Number of the times the [%] key was used
*1.70	TL	Total amount for the [%] key
- 1		[-] key (for the total)
1		
*0.30	TL	
48		Number of cash sale
*558.89	CA TL	Cash sales total
1		Number of charge sale
*57.00	CH 1	Charge total
2		Number of check sale
*62.00	CK TL	Check sales total
2		Number of food stamp
*14.25	FS TL	Food stamp sales total
51		Number of transaction
*692.14	TL	Net sales total

1		Number of PO(cash)
*30.00	PO 1	Total amount of PO(cash)
1		Number of RA(cash)
*25.00	RA 2	Total amount of RA(cash)
VD		Void(+)
4		Number of voids
*37.00	TL	Total amount of voids
- VD		Void(-)
1		
*0.30	TL	
2		Number of items returned
*16.00	RF	Total amount of items returned
*10.29	TX TL	Gross tax total
*681.85	* TL	Net sales excluding tax
*512.91	CD CA	Cash in drawer
*87.00	CD CK	Check in drawer
*15.00	CD FS	Food stamp in drawer operation

1 *		
*23.00	CD *	Exchange rate No. Foreign currency
* + %		
1		[+ %] key
*1.50	TL	Total after department or plu entry
* - 1		[-] key
1		Total after department or plu entry
*0.50	TL	
4		Number of non-sales
*10.00	NS TL	Non-sales total
1 No		Clerk 1
48		Number of transaction
*685.14	TL	Net sales total for clerk 1
2		Number of non-sales
*10.00	NS TL	Non-sales total
7		Number of voids
*53.30	VD TL	Total amount of voids
2 No		
3		
*7.00	TL	Clerk 2
2		
*0.00	NS TL	
11-19	11	
1051	1 No	

7 Checking and Resetting the Sales Information

■ PLU report

To issue this report, press the **PLU** Key while in the "X" mode.

98-12-11	
*****2***X 1	
PL 3	PLU code
1	Number of sales for PLU code 3
*10.00	Total sales amount for PLU code 3
PL 10	
1	
*7.00	
PL 11	
10	
*120.00	
PL 12	
3	
*29.00	
PL 15	
1	
*20.00	
11-18 11	
1051 2%	

■ Hourly report

To issue this report, press the **X/TIME** Key while in the "X" mode.

98-12-11	
*****3***X 1	
10	Hour
10	Number of sales from 10:00 to 10:59
*110.03	Total sales amount from 10:00 to 10:59
11	
8	
*110.85	
12	
7	
*21.13	
17	
18	
*418.27	
18	
9	
*120.52	
11-18 11	
1051 2%	

■ Cash in drawer report

To issue this report, press the **PO** Key while in the "X" mode.

98-12-11	
*****4***X 1	
*601.57 CD CA	Cash in drawer
*87.00 CD CK	Check in drawer
*15.00 CD FS	Food stamp in drawer
1 *	
*23.00 CD *	Exchange rate No.
11-18 11	Foreign currency
1051 2%	

7 Checking and Resetting the Sales Information

■ Clerk report

To issue this report, press the **CHKS/STUB** Key while in the "X" mode.

98-12-11	
*****5***X 1	
1 No	Clerk No.
48	Number of transaction
*685.14 TL	Net sales total
2	Number of non-sales
*10.00 NS TL	Non-sales total
7	Number of voids
*53.30 VO TL	Total amount of voids
11-20 11	
1051 1 No	

■ Training report

To issue this report, press the **TOTL/PRNT** Key while in the "X" mode.

98-12-11	
*****0***X 1	
1	Number of training
*42.00 TR TL	Total amount registered during training mode
11-20 11	
1051 1 No	

■ Group report

To issue this report, press any Department Key while in the "X" mode.

98-12-11	
*****6***X 1	
1	Department No.
27	Number of sales for department 1
*119.50	Total sales amount for department 1
2	
18	
*151.00	

7	8
*95.75	
26	7
*100.00	
*0	75
*662.35 TL	Group No.
	Number of sales for group "0"
	Total sales amount for group "0"
9	2
*4.50	
11	1
*7.00	
18	1
*10.00	
*1	4
*21.50 TL	
11-18 11	
1051 1 No	

7.3 Declaring the Amount of Cash in the Drawer

Your cash register allows you to check the difference between the cash amount entered from the keyboard and the real cash amount stored in the drawer. To check the difference, before issuing the Full Z1 report, press the **VOID** Key and enter the real cash amount you counted. Then press the **CASH/TEND** Key to issue the Full Z1 report. You will see the difference between these amounts printed at the top of the Full Z1 report.

If you set Flag 15 to "Require entering the cash amount in the drawer before resetting the sales", you must enter the real cash amount before issuing the Full Z1 report. If you do not, an error will occur.

To check the difference, first press the **#/ST** Key to open the drawer and count the bills and coins in the drawer. The following example assumes that there are 20 \$20.00 bills, 92 \$10.00 bills, 25 \$1.00 bills, 5 quarters, 20 dimes, 12 nickels and 19 pennies. When you finished counting the real amount, do the following.

VOID

→ **1** **0** **X/**
TIME → **2** **0** **0** **0** → **RA**

→ **2** **5** **X/**
TIME → **1** **0** **0** **0** → **RA**

→ **3** **0** **X/**
TIME → **1** **0** **0** → **RA**

→ **9** **2** → **2** **5** → **RA**

→ **5** **5** **X/**
TIME → **1** **0** → **RA**

→ **8** **5** **X/**
TIME → **5** → **RA**

→ **1** **6** **X/**
TIME → **1** → **RA**

→ **CASH**
TEND



PRINT

```

98-12-11

*****1***Z 1
 10      Q
*20.00a
*200.00
 25      Q
*10.00a
*250.00
 30      Q
*1.00a
*30.00
 92      Q
*0.25a
*23.00
 55      Q
*0.10a
*5.50
 85      Q
*0.05a
*4.25
 16      Q
*0.01a
*0.16
*512.91  π
*512.91  π
*0.00
*****
  
```

The full Z report follows. →

8 Maintenance

This chapter explains the maintenance operations you can perform yourself.

8.1 Cleaning Your Cash Register

Clean the cash register with a dry, soft cloth. If it cannot be cleaned with a dry cloth, use a damp cloth after wringing it out well.

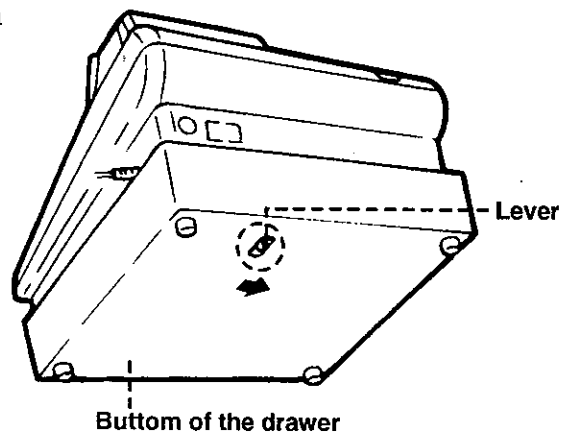
Do not use any volatile chemicals, such as benzine or thinner, or a chemically treated cloth. The cash register might be damaged.

8.2 Opening the Drawer Manually

In the event of a power failure or a problem with the cash register, the drawer may not open. To open the drawer manually, move the lever on the bottom of the drawer in the direction shown by the arrow in the drawing. (See the figure on the right.)

NOTE

- If the drawer is locked, you cannot open it with the method described above.



8.3 Adding Ink to the Logo Stamp

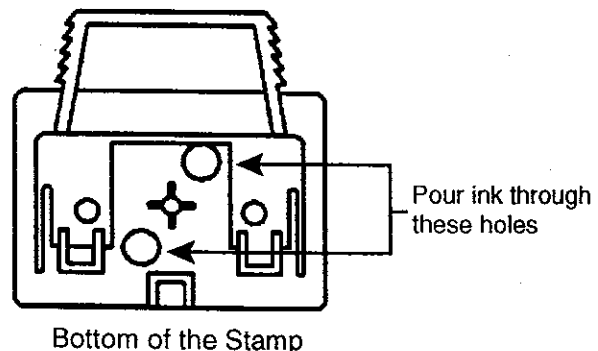
If the Logo Stamp printing becomes faint, add ink to the stamp. Purchase the ink from your local dealer.

NOTE

- Use only the ink which your local dealer provides.
- Several hours after adding ink, the printing may become faint. Add ink after about ten hours of constant use.
- Do not add excess ink and do not put ink on the Ink roller.

To add ink to the stamp:

1. Open the printer cover.
2. Remove the receipt paper roll.
3. Find the Logo Stamp under the paper entrance. Grab the plastic ears on the stamp and pull it out.
4. Pour two or three drops of ink through the holes on the bottom of the stamp.
5. Replace the stamp.



8.4 Replacing the Ink Roller

If the receipt printing becomes faint, replace the ink roller with a new one. Purchase these from your local dealer.

To replace the ink roller:

1. Open the printer cover.
2. Grab the plastic ears on the ink roller and lift it up. (See Fig.1.)

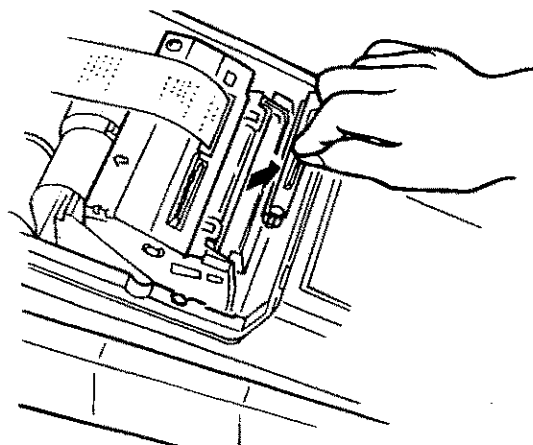


Fig.1

3. Hold the new ink roller by the plastic ears on it and place it on the spring. Then press the ink roller until it snaps into place. (See Fig.2.)
4. Close the printer cover.

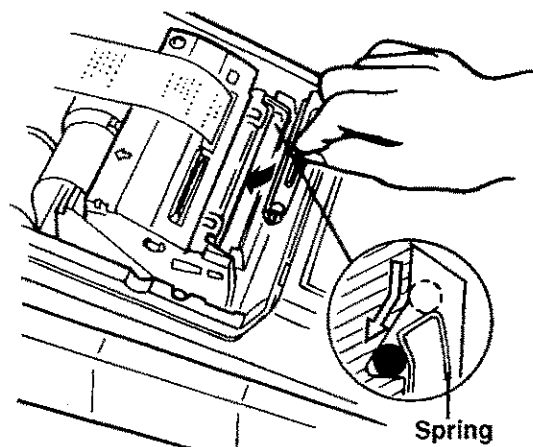


Fig.2

8.5 In Case of a Paper Jam

If a paper jam occurs, remove the paper roll as explained in "Removing the Paper Roll" in section 2.3, "Installing and Removing the Paper Roll". If you cannot clear the jam, please contact your local dealer.

CAUTION

- Do not remove the jammed paper with a sharp instrument. You may scratch the printer.

8.6 Troubleshooting

If you have a problem while operating your cash register, refer to the following steps for a possible remedy.

Problem: Nothing is displayed in any mode.

Action: The power cord may not be plugged in. Turn the control lock to the "L" position, plug in the power cord, then turn the control lock to the required operating position. → See "Installing a Paper Roll" in section 2.3.

Problem: Sales transaction operations cannot be performed.

Action: ■ If the control lock is not in the "R" position, turn it to the "R" position.
→ See "Control Lock" in section 1.3.
■ If you enabled clerk passwords, you must enter a valid password and press the **EC/ID** Key. → See "Clerk Password" in section 3.11.
■ If the clerk key assigned to you has not been pressed, press it.
→ See "4.1 Before Operating Your Cash Register."

Problem: Receipts are not issued.

Action: ■ Make sure the Receipt ON/OFF Key is ON.
→ See "4.1 Before Operating Your Cash Register."
■ If a paper jam occurs, remove the paper roll.
→ See "Removing a Paper Roll" in section 2.3.

Problem: The journal does not rotate.

Action: ■ Make sure the take-up reel is placed correctly on the support.
■ If a paper jam occurs, remove the paper roll.
→ See "2.3 Installing and Removing a Paper Roll."

Problem: A paper jam occurs.

Action: ■ Make sure the paper roll rotates in a correct direction.
■ Make sure the end of the paper inserted into the printer is cut correctly.
→ See "2.3 Installing and Removing a Paper Roll."

Problem: Printing is not performed correctly.

Action: ■ Make sure the ink roller is in place.
■ Replace the ink roller.
→ See "8.4 Replacing the Ink Roller."

If you cannot solve your problem after reading and following the instructions above, reset the cash register computer system as described in "3.1 Before Programming" section. If the problem is not solved after resetting the system, turn the control lock to the "L" position and remove the power cord from the wall. Then contact your local dealer.

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