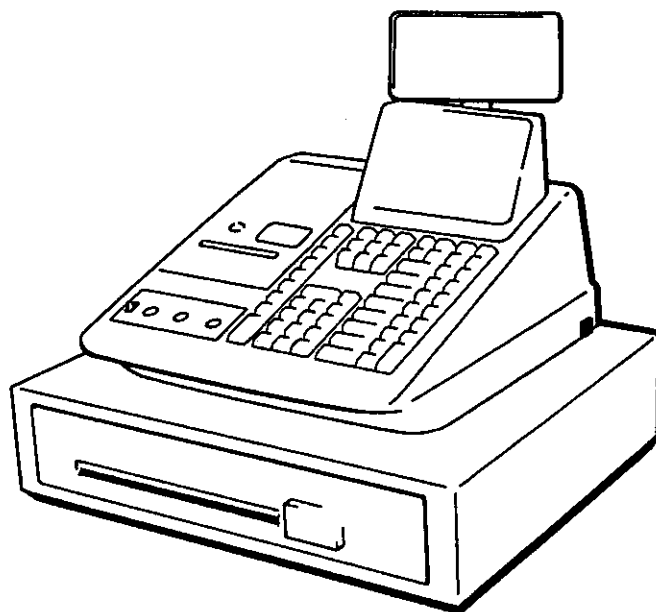


**TEC**

TEC Electronic Cash Register

**MA-227-100**

## **Owner's Manual**



**TOKYO ELECTRIC CO., LTD.**

**WARNING**

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

**WARNING**

"THIS DIGITAL APPARATUS DOES NOT EXCEED THE CLASS A LIMITS FOR RADIO NOISE EMISSIONS FROM DIGITAL APPARATUS SET OUT IN THE RADIO INTERFERENCE REGULATIONS OF THE CANADIAN DEPARTMENT OF COMMUNICATIONS."

"LE PRÉSENT APPAREIL NUMÉRIQUE N'EMET PAS DE BRUITS RADIOÉLECTRIQUES DÉPASSANT LES LIMITES APPLICABLES AUX APPAREILS NUMÉRIQUES DE LA CLASSE A PRESCRITES DANS LE RÉGLEMENT SUR LE BROUILLAGE RADIOÉLECTRIQUE ÉDICTÉ PAR LE MINISTÈRE DES COMMUNICATIONS DU CANADA."

## **TABLE OF CONTENTS**

	<b>Page</b>
<b>1. TO OUR CUSTOMERS .....</b>	<b>1</b>
<b>2. PRECAUTIONS .....</b>	<b>1</b>
<b>3. APPEARANCE AND NOMENCLATURE .....</b>	<b>2</b>
<b>4. MODE LOCK AND CLERK LOCKS .....</b>	<b>3</b>
<b>5. DISPLAY .....</b>	<b>5</b>
<b>6. KEYBOARD LAYOUT .....</b>	<b>7</b>
<b>7. FUNCTION OF EACH KEY .....</b>	<b>8</b>
<b>8. REGISTERING PROCEDURE AND RECEIPT SAMPLES .....</b>	<b>22</b>
<b>9. READ (X) AND RESET (Z) REPORTS .....</b>	<b>57</b>
<b>10. PROGRAMMING OPERATIONS .....</b>	<b>70</b>
<b>11. VERIFICATION OF PROGRAMMED DATA .....</b>	<b>79</b>
<b>12. PAPER ROLL REPLACEMENT AND OTHER MAINTENANCE OPERATIONS .....</b>	<b>84</b>
<b>13. SPECIFICATIONS .....</b>	<b>88</b>

## 1. TO OUR CUSTOMERS

Thank you for choosing the TEC electronic cash register MA-227 series. This instruction manual provides a description of the functions and handling of this register and should be read carefully to ensure optimum performance. Since every consideration has been given to safety and reliability, there is no danger of damaging the machine by incorrect operation.

Please refer to this manual whenever you have any questions concerning the machine. This machine has been manufactured under strict quality control and should give you full satisfaction. However, if the machine is damaged during transit, or there are any unclear points in this manual, please contact your local TEC representative.

- The specifications described in this manual may be modified by TEC, if necessary.
- Be sure to keep this manual for future reference.

## 2. PRECAUTIONS

The ECR is a precision machine. Please handle it carefully considering the following guidelines.

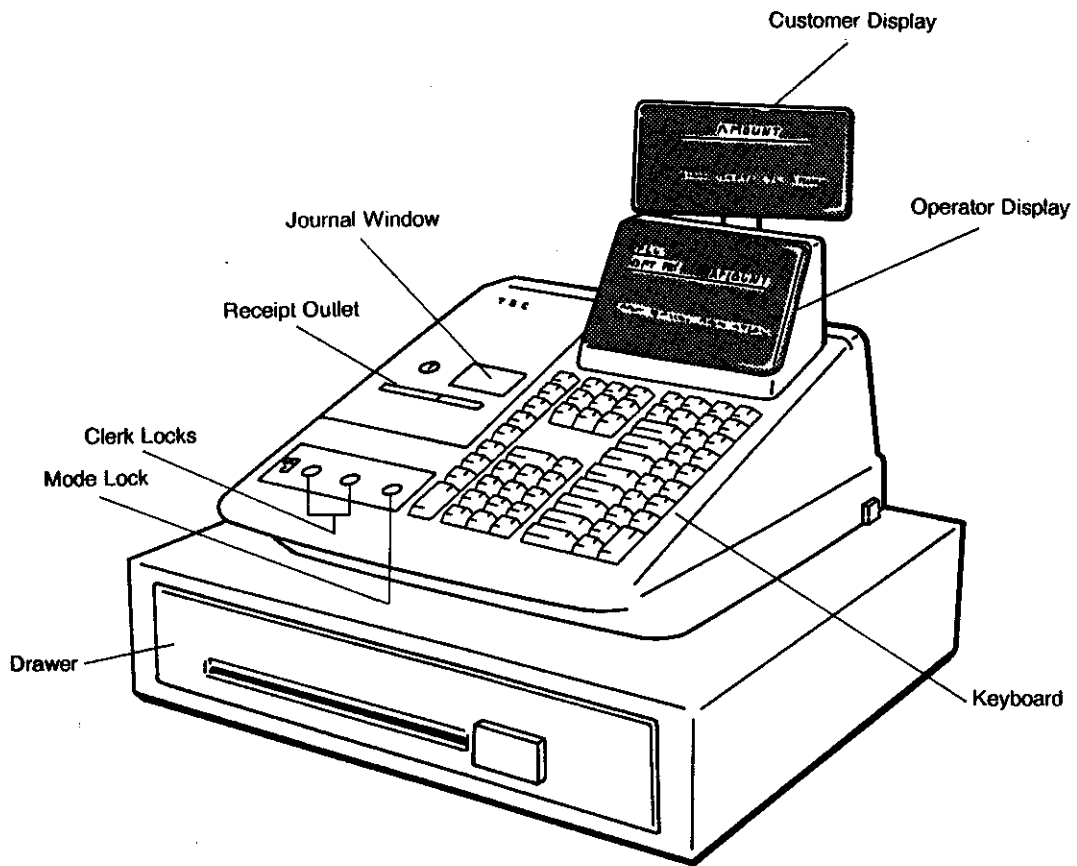
### REMARKS ON THE LOCATION

- Place it where no unusual temperature changes are expected.
- Place it on a flat and level surface with little dust, humidity, vibration, etc.
- Keep it away from water sources.
- Do not use it in direct sunlight for a long time.
- Ensure proper ventilation so that the machine is not exposed to excessive heat.
- Be certain to connect a grounding wire to prevent the generation of static electricity and noise troubles. Never share the same power outlet with many other electric appliances.

### REMARKS ON OPERATING THE ECR

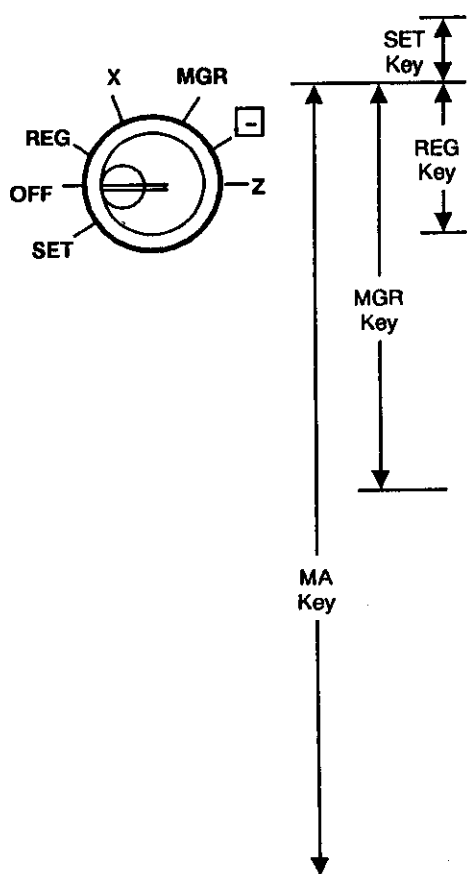
- The keys on the keyboard function with a light touch. Avoid pressing the keys too hard.
- Do not handle the machine with wet hands, since this may cause electrical malfunctions and corrosion of parts.
- Do not apply thinner, benzine, or other volatile materials to the cabinet or other plastic parts. Such liquids will cause discoloration or deterioration of the cover. If dirty, wipe off with a piece of cloth soaked in a neutral detergent and wrung out thoroughly.
- Ask your TEC representative to provide periodical maintenance to ensure the optimum performance of the machine.
- As for other operations, follow the instructions in this manual.

### 3. APPEARANCE AND NOMENCLATURE



## 4. MODE LOCK AND CLERK LOCKS

### 4-1 MODE LOCK



(POSITION)	(FUNCTION)
<b>SET</b> . . . .	In this position, the register will allow programming operations.
<b>OFF</b> . . .	The register operations are locked when the Mode Lock is in this position.
<b>REG</b> . . .	Normal cash register operations are carried out in this mode. However the operations requiring a Manager Intervention cannot be performed in this mode.
<b>X</b> . . . . .	The sale totals in memory can be read and the programmed data can be verified in this position.
<b>MGR</b> . . .	This position allows to register all normal cash register operations to be carried out in the "REG" mode and the operations requiring a Manager Intervention.
<b>-</b> . . .	This is the "Negative Mode", which automatically processes all the entries in the reverse way, i.e. positive items into negative, and the negative into positive. It is usually used to return or cancel all the items once purchased in a sale in the "REG" or "MGR" mode.
<b>Z</b> . . . . .	All the resettable totals and their respective counters in memory will be read <u>and</u> reset in this position.

**REG Key:** The REG Key is used by the cashier or clerk who operates the register. This key can access the positions of **OFF** and **REG**.

**MGR Key:** The MGR Key is used by the store manager or a person authorized by the manager. This key can access the positions of **OFF**, **REG**, **X**, and **MGR**.

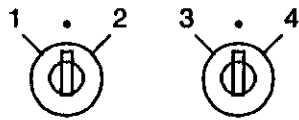
**MA Key:** The MA Key is used by the store manager who will daily supervise the collection of money and the printout of transactions recorded by the register. This key can access the positions of **OFF**, **REG**, **X**, **MGR**, **-**, and **Z**.

**SET Key:** The SET Key is used by the programmer. This key can access the positions of **OFF** and **SET**.

The keys may be inserted or pulled out at the "OFF" or "REG" position.

## 4-2 CLERK LOCKS

### Key-lock Type (Standard)

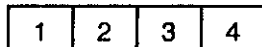


These locks are used to identify which clerk is operating the register.

### Clerk Keys (1, 2, 3, 4)

Each clerk should keep his/her clerk key. The register will not operate unless one of these keys is inserted and set to the correct position in the Clerk Locks. Each of the keys may be inserted and pulled out in the neutral position marked with the dot.

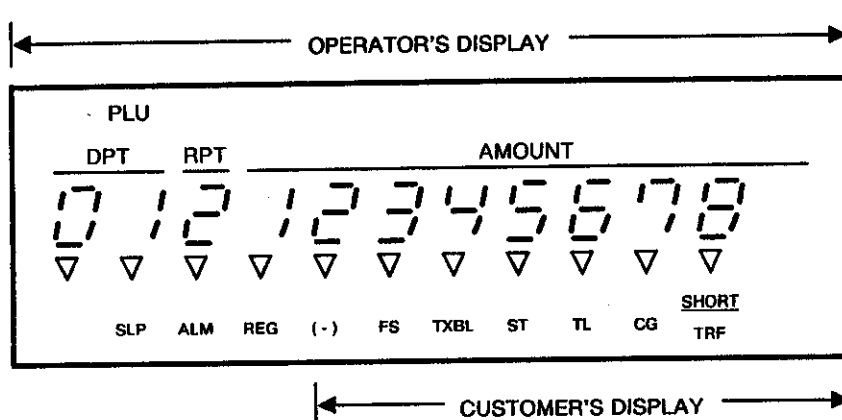
### Push-key Type (Alternative Option)



This type may be installed in place of the standard key-lock type mentioned above, as an alternative option. Each clerk is assigned his/her own clerk key (1 to 4). The register will not operate unless one of these keys is pushed down.

## 5. DISPLAY


The Operator's Display (front display) is located at the top of the register just above the keyboard. The Customer's Display may be used as Rear Display if it is kept in the receptacle or used as Remote Display if it is stretched up and turned to the required direction. The display has two types of display - - numeric display and message descriptors.



### NUMERIC DISPLAY

- AMOUNT (8 digits) :** Displays the numeric data, such as amount, quantity, etc.
- DPT (2 digits) :** Displays the code which represents each Department key. It stays lit when repeating the same department entry.
- RPT (1 digit) :** Displays the repeat count of the same item. The count is indicated from the second entry on, and only the last digit will be displayed even if the count exceeds nine.
- PLU (3 digits; the DPT and RPT digits are commonly used for this purpose.):** Displays the PLU code when any PLU is entered. It goes out when repeating the same PLU entry.

**MESSAGE DESCRIPTORS (TRIANGULAR INDICATORS)**

- SLP :** Lights up when a slip has properly been inserted to allow validation. It flickers to require a validation when validation compulsory status has been programmed on the last operation.
- ALM :** Lights up with the alarm buzzer to indicate that the last operation or numeric entry was an error. To clear the error condition, depress the **[C]** key.
- REG :** Lights up when a sale item has been entered.
- ( - ) :** Lights up when the **[RTN MDSE]**, **[DOLL DISC]**, **[% - ]**, or **[ITEM CORR]** key has been operated. It also lights up when the **[ST]**, **[TXBL TL]**, or one of the total keys has been depressed and the displayed amount is negative. It lights up also when an amount is entered in the "  " mode.
- FS :** Lights up when a department or PLU item with a Food Stampable Status is entered.
- TXBL :** Lights up when a taxable item has been entered. It also lights up when the **[TXBL TL]** key is depressed, indicating that the amount displayed is the sale total plus tax due (in which case the "ST" lamp also lights up). This "taxable total display" function is also applied when the **[ST]** key is depressed if the option "Taxable Total Display on **[ST]** Key Depression" is selected.
- ST :** Lights up when the subtotal amount is displayed after the **[ST]** key has been depressed.
- TL :** Lights up on a finalizing operation with the total amount displayed when a sale is finalized without any amount tendered.
- CG :** When an amount tendering operation has been performed, this lamp lights up with the change due displayed.
- SHORT :** Lights up when the amount tendered is less than the sale total with the shortage amount displayed.  
**TRF** Lights up also when all the sale balance are transferred to the new sale balance for post charging.

## 6. KEYBOARD LAYOUT

The following are typical keyboard layout for the MA-227 series. Since this series is designed to be capable of programming most of the keys to be placed in the desired place on the keyboard, this is merely an example. The keyboard of your register should have its own layout according to the store's requirements.

### --- Standard Keyboard Layout ---

NS	VALID DATE	RF	JF	% +	R/A	PB +	PB-
RECEIPT ISSUE	VOID	DOLL DISC	ITEM CORR	%-	PO	Chg	TRF
#	FS/M	TX1/M	TX2/M		1	9	CUR
EX					2	10	CPN
PR OPEN					3	11	MISC
LC OPEN	C	@/ FOR			4	12	FSTL TEND
RTN MDSE	7	8	9		5	13	CHECK TEND
AMT	4	5	6		6	14	TXBL TL
PLU	1	2	3		7	15	AT/TL
	0	00	•		8	ST	

Department Keys

Other keys not placed in the keyboard above :

Additional Department Keys (16 to 40)

[OPEN]	[#/NS]
[#/CID]	[TAX]
[TX3/M]	[CUR 2] to [CUR 4]

## 7. FUNCTION OF EACH KEY

On the following pages are brief descriptions of the function of each key. Actual operating procedures and print samples are introduced in the next chapter.

### TABLE OF CONTENTS

	Page		Page
[RECEIPT ON/OFF] .....	9	[ITEM CORR] .....	15
[RECEIPT ISSUE] .....	9	[VOID] .....	15
[RF] .....	9	[R/A] .....	15
[JF] .....	9	[PO] .....	16
NUMERIC KEYS .....	10	[ST] .....	16
[.] .....	10	[TXBL TL] .....	16
[NS] .....	10	[AT/TL] .....	16
DEPARTMENT KEYS .....	10	[CHECK TEND] .....	17
[PLU] .....	11	[Chg] .....	18
[C] .....	12	[MISC] .....	18
[#], [# /CID] .....	12	[CPN] .....	18
[# /NS] .....	12	[FSTL TEND] .....	18
[AMT] .....	12	[VALIDATE] .....	19
[PR OPEN] .....	13	[PB + ], [PB - ] .....	19
[LC OPEN] .....	13	[TRF] .....	19
[OPEN] .....	13	[TX1/M] [TX2/M] [TX3/M] .....	20
[@ /FOR] .....	13	[FS/M] .....	20
[RTN MDSE] .....	14	[EX] .....	20
[DOLL DISC] .....	14	[CUR1] to [CUR4] .....	21
[% + ] .....	14	[TAX] .....	21
[%- ] .....	14		

**RECEIPT****RECEIPT ON/OFF SWITCH ([RECEIPT ON/OFF])**

This switch has two positions available: the 'OFF' position and 'ON' position. When in the 'OFF' position, no receipt is issued from the register and sales are printed on the journal roll only. When the switch is set to the 'ON' position, sales are printed on both receipt roll and journal roll, then a receipt is issued which is given to the customer.

**RECEIPT  
ISSUE****RECEIPT POST-ISSUE KEY ([RECEIPT ISSUE])**

This key is used to issue the receipt of a sale when the sale has already been finalized with the [RECEIPT ON/OFF] switch positioned to OFF.

However, the post-receipt can be issued even when the [RECEIPT ON/OFF] switch is positioned to ON if so programmed in system option.

This key will not function if another sale is already under way.

The post-receipt may be an itemized receipt (i.e. all sale items and the total are printed, just as for an ordinary receipt) or a total-only receipt according to a program option selection.

**POST-RECEIPT PRINT FORMAT:**

Option: Itemized Receipt		Itemized Print	
		... when the sale contains not more than 20 items.	
		Total-only Print	
		... when the sale contains more than 20 items.	
Option: Total-only Receipt	—	Total Print	
		... regardless of the number of items in the sale.	

**RF****RECEIPT FEED KEY ([RF])**

This key is used to advance the receipt roll. It is operated by depressing the key and holding it in that position until the paper has advanced to the required position. This key is effective even when the [RECEIPT ON/OFF] switch is in the 'OFF' position.

**JF****JOURNAL FEED KEY ([JF])**

This key is used to advance the journal roll in the same fashion as the [RF] key. These keys are useful if the operator, due perhaps to an interruption while ringing up a sale, is unsure which items have already been entered. By using the feed key the operator can see which figures have actually been printed.

The [RF] and [JF] keys cannot be operated simultaneously.

7	8	9
4	5	6
1	2	3
0	00	

## NUMERIC KEYS ( | \_\_\_\_\_ | )

These keys are used to enter numeric values such as amount, quantity, or code number.

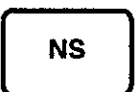
The maximum numeric entry digits vary according to each item or operation. Depressing the [00] key once is the same as depressing the [0] key twice consecutively.



## DECIMAL POINT KEY ([ . ])

This key used, as part of numeric keys, to designate the decimal point position when entering a percent rate (through [% + ] or [% - ]) or a quantity (through [ @/FOR ]). For example, to enter 0.5%, index 0 → [ . ] → 5, or [ . ] → 5. A maximum of three digits may be entered below the decimal point.

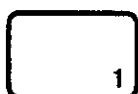
When entering a price or amount such as \$0.25 just index 2 → 5. In this case, depression of the [ . ] key is not necessary and will cause an error.



## NO SALE KEY ([NS])

This key is used to open the cash drawer while the machine is outside a sale. To operate, depress this key once. This function is usually used to break a big bill, or to check the receipt and journal print condition.

A non-add number may usually not be entered prior to a no-sale operation within one receipt sequence. However, it can be programmed to allow a no-sale operation after a non-add number entry.



}



## DEPARTMENT KEYS ([DEPT])

These are department keys through which sales items are registered. A maximum of 40 keys may be installed. Each of these keys may be programmed as either an 'OPEN' or 'PRESET' key.

### (1) OPEN DEPARTMENT KEY ([Open DEPT])

A department key which has no preset price programmed is an 'OPEN' key and it is necessary to enter a price manually each time. The price is rung up on the numeric keyboard and the appropriate department key is depressed. The price is then displayed and printed on the receipt and journal roll.

When the same department key is depressed more than once consecutively after a price entry, the price entry is repeated as many times as the department key is depressed.

**(2) PRESET DEPARTMENT KEY ([Preset DEPT])**

A preset key is a key which already has a price programmed in it. It is therefore unnecessary to enter the price of an item; simply depress the key to register the sale of one item.

If a price different from the preset one must be entered through numeric keys into a preset department, depress the **[PR OPEN]** or **[OPEN]** key before the price entry, followed by the department key.

**Single-item Departments**

If a department is programmed as Single-item, the department entry sequence will immediately finalize the sale as cash sale without operating any of the media keys when operated outside a sale (i.e. when no other items have been entered within one receipt sequence). The Single-item Department will function, however, just as an ordinary itemized department if operated inside a sale.

PLU

**PLU (Price-Look-Up) KEY ([PLU])**

A "PLU" is an individual merchandise item programmed with its own item code (PLU Code) and its link department. Each PLU can be programmed to a "Preset PLU" (to auto-enter the preset price) or an "Open PLU" (to enforce a price entry through the numeric keys each time)

To enter a Preset PLU:

<p>  <u>PLU Code</u>   → <b>[PLU]</b> ...</p> <p>Max. 3 digits (1 to 999)</p>	<p>The preset price will automatically be read and entered.</p> <p>To repeat the same PLU price, depress the <b>[PLU]</b> key only, after the above operation.</p>
---	--

To enter an Open PLU:

| PLU Code | → **[PLU]** → | Price | → **[AMT]**

⋮

The price indexed through the numeric keys will be entered. To repeat the same PLU price, depress the **[AMT]** key only, after the above operation.

C

**CLEAR KEY ([C])**

This key is used to clear a numeric entry or a declaration key (such as **[RTN MDSE]**) entry if prior to depressing a motorized key (a key to execute printing of the entry, such as **[DEPT]** or media keys), or to correct any error condition and cancel the alarm.

If the **[C]** key is depressed after a subtotal is once obtained, the subtotal amount is again displayed. If the sale total plus taxes is once obtained by the **[TXBL TL]** key or the **[ST]** key with the "Taxable Total Display" option, depressing the **[C]** key there will display the sale total plus taxes.

#

**NON-ADD NUMBER PRINT ([#]),  
NON-ADD NUMBER PRINT/ CASH IN DRAWER KEY  
([#/CID])**

#/CID

This key is used to print a non-add number (such as Check No., Credit Card No., etc.) on the receipt and journal for future reference.

To operate, enter a maximum 8-digit number (the preceding zeros will not be printed if any entered), and then depress **[#]**. The number is then printed. This operation may be performed any time between sale items, before or after all the sale items if the sale has not been finalized yet. The numbers thus printed will not affect the sale total.

#/NS

**NON-ADD NUMBER PRINT/ NO-SALE KEY ([#/NS])**

This is a dual-function key that has both **[#]** and **[NS]** key functions. If depressed with a prior numeric entry, it will function as the Non-add Number Print Key.

If depress without a prior numeric entry when the register is outside a sale, it will function as No-sale key.

AMT

**AMOUNT KEY ([AMT])**

This key is used to enter an amount or price for an open PLU. Refer to the description of the **[PLU]** key (page 11).

**PR  
OPEN**

## **PRESET OPEN KEY ([PR OPEN])**

This key is used to modify the status of a preset department. When the [PR OPEN] key is depressed prior to operating a preset department, the preset department is reversed to an open department and this allows an amount entry through the numeric keys for that item only.

This key cannot be used to reverse a preset PLU to an open PLU.

**LC  
OPEN**

## **LISTING CAPACITY OPEN KEY ([LC OPEN])**

This key is used to release the listing capacity preprogrammed on each department (or on each open PLU linked to the department accordingly). To operate, depress [LC OPEN] before operating the department (or the PLU).

By depressing the [LC OPEN] key, the HALC (High Amount Listing Capacity) of the department or PLU will be released to allow a numeric entry with two more digits.

In order to allow an amount entry exceeding the value defined above, a Manager Intervention is necessary.

**OPEN**

## **PR-AND-LC OPEN KEY ([OPEN])**

This is a dual-function key that has both [LC OPEN] and [PR OPEN] functions. By depressing this key once, both of these functions are available.

**@/FOR**

## **AT-FOR (QUANTITY EXTENSION AND SPLIT-PACKAGE PRICING) KEY ([@/FOR])**

This key is used to multiply a department or PLU item entry by a quantity (Multiplication Function). This key is also used to auto-calculate and enter a split-package price (in such a case as a customer wants only two of five tomatoes in one package; Split Price Function).

The basic order of multiplication is:

| QUANTITY | → | @/FOR | → | UNIT PRICE |

As for details of multiplication and split pricing for various cases, refer to the next chapter.

**RTN  
MDSE**

## **RETURNED MERCHANDISE KEY ([RTN MDSE])**

This key is used to refund money to a customer who has returned items already purchased.

To operate, depress this key before ringing up the amount to be refunded, and then operate the appropriate department (the department operation sequence may be replaced by a PLU entry sequence). The amount is automatically printed and deducted from the bill.

The [RTN MDSE] key can usually be used outside as well as inside a sale.

**DOLL  
DISC**

## **DOLLAR DISCOUNT KEY ([DOLL DISC])**

This key is used to subtract an amount from the sale such as a discount during a sale. An amount exceeding the sale total cannot be entered unless the "Credit Balance" option is selected.

To operate, enter the discount amount and then depress the [DOLL DISC] key. It may be operated after a [ST] key depression (Discount from Sale) or after individual Department or PLU item entry (Discount from Department).

**% +**

## **PERCENT CHARGE KEY ([% + ])**

This key is used to add a percent rate to a sale. If the preset percent rate is to be added, depress the [% + ] key without a prior numeric entry. If a rate different from the preset one is to be added, enter the desired rate on the numeric keyboard and then depress the [% + ] key. The manual rate will then be added.

Use the [% + ] key after a department, PLU, or positive Previous Balance if only that item requires the percent addition, or after the [ST] key if required on the total bill. The percentage rate and the amount are printed and will be added to the sale total.

The percent rate may be within the range from 0.001 to 99.999%.

Usually a % key operation after a subtotal is once obtained is allowed only once. However, it may be programmed to allow more.

**%-**

## **PERCENT DISCOUNT KEY ([%-])**

This key operates in the same fashion as the [% + ] key except that operation will subtract from instead of adding to a sale.

ITEM  
CORR

## ITEM CORRECT KEY ([ITEM CORR])

This key is used to remove the last item from a bill, printing a line through the item on the receipt and journal.

To operate, simply depress the [ITEM CORR] key immediately after the wrong item is entered and printed.

The item-correct function is effective even when a [C] key depression to clear a numeric entry is inserted between the line to be corrected and the [ITEM CORR] key depression. But when the [C] key is operated to cancel an error, the item-correct is no longer effective to delete the last item.

The [ITEM CORR] key will function to correct to any last item entered through a Department, PLU, [% +], [% -], [DOLL DISC], [R/A], [PO], or [TAX] (Manual Tax Entry), [PB +], or [PB -].

VOID

## VOID KEY ([VOID])

The [VOID] key is used to delete an item entered previously (before the last line item) within a sale, in which case the [ITEM CORR] key will not function.

To operate, depress the [VOID] key before a normal department or PLU entry sequence.

The [VOID] key will function to delete a previous item through a department or a PLU, or a combination of department PLU plus % +/%- entry, but not any other kind of items.

The [VOID] key cannot be used along with [RTN MDSE] key. But quantity extension (multiplication) and split package pricing possible with the [VOID] key.

To delete a purchased item a sale already finalize, the [RTN MSDE] key will be used instead of the [VOID] key. Thus the [VOID] key must be operated inside sale, and the amount entered through [VOID] must no exceed the sale total. However, when the option "Over- subtraction using [VOID] Allowed" is selected, over-subtraction of the sale is allowed and accordingly [VOID] may be used outside a sale as well.

R/A

## RECEIVED-ON-ACCOUNT KEY ([R/A])

A received-on-account transaction is used to identify money which is in the drawer but not due to business. The amount entered is thus included in the In-drawer Total memories but not in the sales total memories.

To operate, enter an amount of payment and then depress the [R/A] key. Repeat this operation if multiple payments are recorded within one receipt. The payments entered are finalized by the [AT/TL] key if paid in cash. Other media keys also finalize such payments if so programmed. The above operation sequence can only be performed when the register is outside a sale.

The [R/A] key is also used to declare the payment amount near the end of a charge positing operation.

PO

**PAID-OUT KEY ([PO])**

A paid-out transaction is used when an amount of money is removed from the cash drawer without relating to a sale, for the purpose of paying wholesalers, etc. When the [PO] key is used, the amount entered is subtracted from the Cash-in-drawer Total memory but not sales totals.

To operate, enter an amount to be taken from the cash drawer and depress the [PO] key whilst the register is in an out-of-sale condition. This operation may be repeated if multiple paid-out items are registered in one transaction. The paid-out amounts are finalized by the [AT/TL] key only (i.e., must always be paid out in cash).

In a charge posting operation, this key is depressed to pay back all the balance to the customer, after once finalizing the account with the [Chg] key.

ST

**SUBTOTAL KEY ([ST])**

This key is used to obtain the subtotal amount (sale total pre-taxed) during a sale. When this key is depressed after all the items have been rung up, the subtotal of the sale is printed and displayed.

If the [ST] key is depressed more than once consecutively, the first depression only will print and display the subtotal; further depressions will only display but not print the subtotal amount.

TXBL  
TL**TAXABLE TOTAL KEY ([TXBL TL])**

This key is used to display the contents of the sale total plus any taxes due. The amount will only display but not print.

In order to allow add-on operations following the use of this key, the taxes are not added into any total memories until actual finalization is initiated.

Mandatory depression of this key prior to finalizing a sale is a program option.

In charge posting, depress the [TXBL TL] key displays the amount including tax, but excluding the previous balance.

AT/TL

**CASH AMOUNT TENDERED / CASH TOTAL KEY ([AT/TL])**

-- Cash Media Key

This key is used to record all cash paid on transactions, and will be able to finalize a sale operation. Usually this key is programmed to function as both "Tender" and "Total" key. However, the key may be programmed to operate only with enforced tendering or only as a cash total key.

**TENDER FUNCTION**

After the [ST] key is depressed, enter the amount tendered by the customer in payment of the sale, and then depress the [AT/TL] key. The change is automatically computed, displayed, and printed.

If the amount tendered is smaller than the sale total, it prints the amount tendered on the receipt with the balance due displayed, but the drawer is not yet opened. In this case, ask the customer for additional payment in cash and repeat the same amount-tendering operation, or use another media key if the balance due is processed as a sale in that media.

**NOTE:** Even if [AT/TL] is programmed to function as Tender-only key and the sale total is zero or negative, no amount tendered can be entered. In this case, [AT/TL] will function just as the Total key, so just depress [AT/TL] to obtain the total and finalize the sale. The balance in negative indicates that the amount must be paid back to the customer in cash.

### TOTAL FUNCTION

To obtain the total and finalize a cash sale, depress the [AT/TL] key only. The sale is finalized with the total printed and displayed, and the drawer opens.

If the "[TXBL TL] Compulsory" option is selected, a [TXBL TL] key depression is always required before finalizing a sale. (The [TXBL TL] key is replaced by the [ST] key if the [ST] key is programmed with "[TXBL TL]" key functions.)

The [AT/TL] key is also used to finalize Received-on-Account payments or Paid-Out amounts.

**CHECK  
TEND**

### **CHECK TENDER KEY ([CHECK TEND])**

This is one of the non-cash media keys, and is used to cash a check when the register is outside a sale, or to finalize the transaction as a check payment.

### CHECK CASHING WITH NO PURCHASE

When the register is outside a sale, enter the check amount and depress the [CHECK TEND] key. A receipt is issued and the drawer is opened to enable exchange. However, this cashing function may be prohibited by a program selection.

### FINALIZING AS CHECK PAYMENT

For finalizing a sale with [CHECK TEND], refer to the [AT/TL] key description. The [CHECK TEND] key is usually programmed to function as a Tender-only key. However, it may be programmed to function as a Total-only key or as both Tender and Total key, just as [AT/TL].

The [CHECK TEND] key is also used to finalize Received-on-Account payments when paid in check, if programmed to allow it.

When the key is programmed to allow tendering, over-tendering and/or short-tendering using this key may also be programmed to be prohibited.

Chg

**CHARGE KEY ([Chg])**

This is another non-cash media key, and is usually programmed as a "Charge Sale Total" key. However, it may be programmed to be a key for other media such as payments by credit card. To operate as a general charge sale finalizing key, depress [Chg], instead of [AT/TL], to obtain the total and finalize the sale.

This key has exactly the same functions and programmabilities as the [CHECK TEND] key except that [Chg] is usually programmed as Total-only key but not Tender key.

MISC

**MISCELLANEOUS MEDIA KEY ([MISC])**

This is one of the additional non-cash media keys that may be installed besides [CHECK TEND] and [Chg]. This key has the same functions and programmabilities as the [CHECK TEND] key, and is usually used as the Tender-only key.

CPN

**MEDIA-COUPON KEY ([CPN])**

This key is used to finalize a sale paid in coupons. This key has the same functions and programmabilities as the [CHECK TEND] key and is usually used as the Tender only key.

FSTL  
TEND**FOOD STAMP TOTAL READ / TENDER KEY  
([FSTL TEND])**

This is a multi-purpose function key associated with the food stamp tendering operation.

**FOOD STAMPABLE TOTAL READ**

The first depression of this key without a prior amount entry during a sale displays the food-stampable total, which indicates the maximum amount the customer may pay in food stamp.

**FOOD STAMP TENDERING**

Next, the food stamp amount tendered by the customer is entered and then the [FSTL TEND] key is depressed. If the food stamp amount tendered is equal to or larger than the food-stampable total and if there is no non-food-stampable amount included in the sale (accurately, a maximum non-food-stampable amount of 99¢ may be included), the sale is finalized and a receipt is issued. If any non-food-stampable amount is included or the tendered food stamp amount is short of the food-stampable total, the balance due is displayed, expecting for another tendering or totaling operation in other medias.

The change by the unit \$1.00 will be returned in food stamp (displayed in the "DPT" portion), but the change portion less than \$1.00 will be returned in cash (displayed in the "AMOUNT" portion).

There are three types of food stamp handling regarding the tax payment system for the food stampable items, and the register has been programmed with the right type for each area:

(1) GENERAL TYPE

The customer may pay up to the food-stampable amount plus its taxes due in food stamps. (The FOOD STAMPABLE TOTAL read in the display already includes the taxes due in this type.)

(2) ILLINOIS TYPE

The customer may pay up to the food-stampable amount in food stamps, and the amount actually paid in food stamp is tax-exempted. (The FOOD STAMPABLE TOTAL read in the display does not include its taxes due in this type.)

(3) TEXAS TYPE

The customer may pay up to the food-stampable amount in food stamps, but any taxes due must be paid in cash. (The FOOD STAMPABLE TOTAL read in the display does not include its taxes due in this type.)

(4) NEW JERSEY TYPE

The customer may pay up to the food-stampable amount in food stamps, and its taxes due are all exempted regardless of the actual amount paid in food stamps. (The FOOD STAMPABLE TOTAL read in the display does not include its taxes due in this type.)

VALID  
DATE

## VALIDATION KEY ([VALIDATE])

This key is used to over-print a validation slip.

To operate, after registering a required item or finalizing a required sale, insert the slip into the validation slot and depress the [VALIDATE] key. The item and the amount will be printed in one line on the slip. Print or non-print of the consecutive No. or clerk No. is program option.

Program selection are also provided for single- or multi-validation (number of times validation allowed for the same item), validation compulsion on certain transaction keys.

PB +

PB-

## PREVIOUS BALANCE KEYS ([PB + ], [PB-])

These keys are used to enter a previous balance in a charge posting operation. If a previous balance is entered, then the operation becomes a charge posting, and the [Chg] key will be used at the end of the operation.

A previous balance may be entered anywhere and any number of times during a sale. The [PB + ] key is used to post a debit balance and the [PB-] key is used to post a credit balance. To initiate a charge positing operation where no previous balance exists, then enter zero as a past balance, followed by [PB + ] or [PB-].

If the [ST] or [TXBL TL] key is depressed during a charge posting operation, the displayed amount does not include the previous balance. When the [Chg] key is depressed to end a charge posting sale, the displayed and printed amount includes the previous balance.

The [% + ] or [%-] key may be operated after a previous balance entered through [PB + ] but not [PB-].

TRF

## TRANSFER KEY ([TRF])

When a charge posting is ended with the [Chg], this key is used to transfer the entire balance with no payment.

To operate, depress the [TRF] key after the [Chg] key. All the balance is transferred, the transferred amount is printed as the new balance, and a receipt is issued. In this operation, the [Chg] key may be omitted.

TX1/M

## TAX MODIFIER KEYS ([TX1/M], [TX2/M], [TX3/M])

These keys are used to reverse the Tax status (taxable/non-taxable status) on departments, PLUs, or other tax-status-programmable keys ([DOLL DISC], [% + ], and [%- ]) for one entry only.

To operate, depress the required tax modifier keys prior to depressing any of those function keys listed above.

The tax modifier keys are also used, along with the [EX] key, to exempt required tax(es) from the sale. Refer to the [EX] key description for this purpose.

TX2/M

TX3/M

FS/M

## FOOD STAMP MODIFIER KEY ([FS/M])

This key is used to reverse the food stampable/non-stampable status of a Department, PLU, [% + ], [% - ], [DOLL DISC] items for one entry only.

To operate, depress [FS/M] prior to the numeric entry (if any) and one of the keys listed above.

EX

## TAX EXEMPT KEY ([EX])

This key is used to declare the exemption of the taxes from the sale, displaying the sale total excluding the exempted tax(es), printing the pre-taxed amount of the sale portion subject to the tax exemption. Only a finalizing operation is possible after the [EX] key is operated.

When dual tax modifier keys are installed, partial tax exemption as well as total tax exemption may be performed in the following ways:

[TX1/M] → [EX] ..... to exempt TAX 1 only  
 [TX2/M] → [EX] ..... to exempt TAX 2 only  
 [TX3/M] → [EX] ..... to exempt TAX 3 only  
 [TX1/M] → [TX2/M] → [EX] .... to exempt TAX 1 and TAX 2  
 [TX2/M] → [TX3/M] → [EX] .... to exempt TAX 2 and TAX 3  
 [TX1/M] → [TX3/M] → [EX] .... to exempt TAX 1 and TAX 3

To exempt all the taxes, simply depress [EX] (or depress all the tax modifier keys first, then depress [EX]).

CUR  
1

to

CUR  
4

## FOREIGN CURRENCY KEYS ([CUR]; [CUR 1] to [CUR 4])

These keys are used in tendering with foreign currencies. Each of these corresponds to a foreign currency and is programmed with a preset exchange rate.

### PAYMENT OF A SALE IN A FOREIGN CURRENCY

For finalizing the sale, depress the [TXBL TL] key. (The [TXBL TL] key is always mandatory for this operation.) The total (including taxes) is displayed in the domestic currency value. Next, depress the [CUR] key corresponding to the required foreign currency, and the sale total is displayed in that currency value exchanged from the domestic currency value. Then an amount tendered in that foreign currency may be entered (displaying the amount in the foreign currency) and the same [CUR] key will be depressed (now displaying the domestic currency amount exchanged from the entered foreign currency amount). Finally, depress the media key according to the media paid (usually [AT/TL] for cash payment). The change due is displayed and printed in the domestic currency value. If the tendered amount is short, the balance due is displayed in the domestic currency value, and then multi-tendering with the same [CUR] key.

### NO-SALE EXCHANGE FROM A FOREIGN CURRENCY TO THE DOMESTIC CURRENCY

When the register is outside a sale, depress the [CUR] key. The display zero format will be that of the designated currency. Next, enter the foreign currency amount and then depress the [NS] key. The domestic currency amount equivalent to the entered foreign currency amount is displayed and printed, the drawer opens, and a receipt is issued.

TAX

## MANUAL TAX KEY ([TAX])

This key is used to enter an irregular tax amount that cannot be calculated on the basis of the programmed tax table, and to add it to the sale total.

To operate, enter the desired amount of tax and then depress the [TAX] key. The amount entered is then printed. This tax amount is processed into the TAX 4 memory.

## 8. REGISTERING PROCEDURE AND RECEIPT SAMPLES

The following pages are registering operation patterns and actual operation samples. In the patterns, " | \_\_\_\_\_ | " indicates an input through the numeric keys, "[     ]" indicates a depression of the transaction key, and " --- " indicates other registering and /or finalizing operations. In referring to the sample operations, please note that the programmed data on some keys or items (such as Department keys) may be different from those programmed for your store.

### CONDITION SETTING TO START REGISTERING

Mode Lock : Insert the "REG" key and set it to the "REG" position.

Clerk Lock : You must set your clerk key to the ON status.

### TABLE OF CONTENTS

	Page
NO-SALE .....	23
RECEIVED-ON-ACCOUNT .....	24
PAID-OUT .....	25
DEPARTMENT ENTRY .....	26
PLU ENTRY .....	28
REPEAT ENTRY .....	29
QUANTITY EXTENSION (MULTIPLICATION) .....	30
SPLIT PACKAGE PRICING .....	32
RETURNED MERCHANDISE .....	33
PERCENT DISCOUNT .....	34
DOLLAR DISCOUNT .....	35
ITEM CORRECT .....	37
VOID .....	36
NON-ADD NUMBER PRINT .....	38
LISTING CAPACITY OPEN .....	38
TAX STATUS/FOOD STAMP STATUS MODIFICATION .....	38
MANUAL TAX ENTRY .....	39
SUBTOTAL READ .....	39
TAXABLE TOTAL READ .....	40
TAX EXEMPT .....	41
FOOD STAMPABLE TOTAL READ, FOOD STAMP TENDERING .....	42
SALES FINALIZATION BY MEDIA KEYS .....	43
MULTI-TENDER .....	44
SPLIT-TENDER .....	45
CHECK CASHING .....	47
SALE PAID IN FOREIGN CURRENCIES .....	48
NO-SALE EXCHANGE FROM A FOREIGN CURRENCY TO THE DOMESTIC CURRENCY .....	49
PREVIOUS BALANCE, CHARGE POSTING .....	50
RECEIPT POST-ISSUE .....	52
VALIDATION PRINT .....	53
OTHER INCOME ENTRY .....	54
REMOTE SLIP PRINTER OPERATION .....	55
ENTRY IN " [ ] " MODE .....	55
WHEN A POWER FAILURE OCCURS ...	56

**NO-SALE** (must be operated outside a sale)**[NS]**

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY										
		PLU		AMOUNT								
		DPT	RPT									
		SL	AL	RE	(-)	PS	TX	ST	TL	CG	TH	
You want to test the printer condition before starting operations for the day.  Or a customer requests to break a bill.	<b>[NS]</b>  The drawer opens.								0.	0	0	

Thank you  
Call again

05-11-89  
23001

★ 2

12-0010  
12-00

Clerk ID —

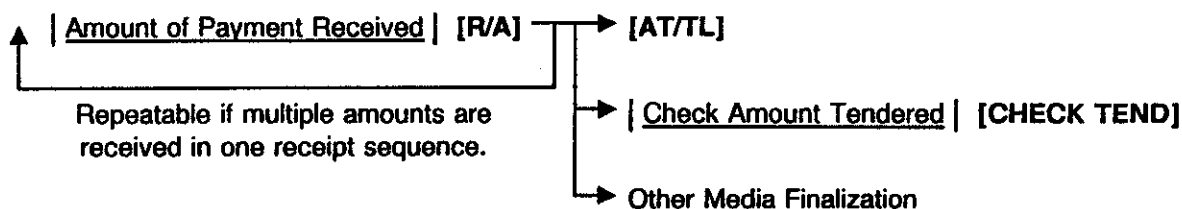
Date —

Register No. —

No-sale Symbol —

Receipt Consecutive No. —

Time Print —

**RECEIVED-ON-ACCOUNT** (must be operated outside a sale)

**NOTE :** The media keys used for this operation must be programmed to allow received-on-account entries.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY									
		PLU		AMOUNT							
		DPT	HPT	SL	AL	RE	TX	ST	TL	CO	TH
<p>A customer comes and settles his account for a sale made on a different day (finalized as a charge sale), not relating today's sale business. The Customer's Account No. is 15.</p> <ul style="list-style-type: none"> <li>• Paid Amount \$10.00</li> <li>• Paid Amount \$2.50</li> </ul> <p>The customer tenders the exact a amount in cash. Receive \$12.50 and put it in the drawer.</p>	15								0	1	5
	[#]								0	1	5
	1000							1	0	0	0
	[R/A]							1	0	0	0
	250							2	5	0	
	[R/A]							2	5	0	
	[AT/TL]							1	2	5	0
									▼		

Thank you  
Call again

05-11-89  
23001

#15

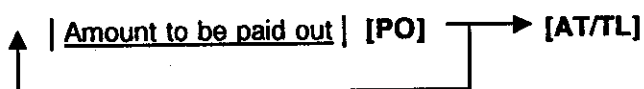
\*1000 RA

\*250 RA

\*1250 TL

12-0011

12-01

**PAID-OUT** (must be operated outside a sale)

Repeatable if multiple amounts to be paid out are recorded in one receipt sequence.

**NOTE :** Only [AT/TL] can finalize paid-out amounts. (i.e. must always be paid out in cash.)

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY											
		PLU		AMOUNT									
		DPT	RPT										
		SL	AL	RE	I	FE	TX	ST	TL	CG	TR		
You must pay for merchandise the store has purchased.  You assign Code No. 2003 to this wholesaler for future reference. • \$4.50 • \$3.20  Pay the total amount \$7.70 to the wholesaler out of the drawer.	2003							2	0	0	3		
	[#]							2	0	0	3		
	450								4	5	0		
	[PO]								4	5	0		
	320								3	2	0		
	[PO]								3	2	0		
	[AT/TL]								7	7	0		
									▼				

Thank you  
Call again

05-11-89  
23001

#2003  
     ★450   2  
     ★320   2  
     ★770   TL  
 12-0012  
 12-02

# DEPARTMENT ENTRY

## Open Department (Itemized Dept)

(--- → ) | Price | [Open DEPT] → ---

## Preset Department (Itemized Dept)

(--- → ) [Preset DEPT] → ---

(--- → ) | Price | [Preset DEPT] → ---

↑ or ↑ [PR OPEN]  
(or [OPEN])

## Single-Item Department

Operates the same as Itemized Departments, except that the sale is finalized as cash in case a Single-item Department is entered when operated outside a sale.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY										
		PLU		AMOUNT								
		DPT	RPT	BL	AL	RE	( )	PS	TX	ST	TL	CO SH TR
<b>Open Dept (Itemized)</b> A Dept.1 item of \$1.23 (Dept.1 is programmed as an Open, Itemized dept) (The sale is not finalized until a media key is operated.)	123										1	2 3
	[DEPT 1]	0	1			▼			▼		1	2 3
	01 *123 £											
<b>Preset Dept (Itemized)</b> A Dept.2 item which is preset with a price of \$2.50. (The sale is not finalized until a media key is operated.) A Dept.2 item of \$1.50. (which is preset with price of \$2.50.)	[DEPT 2]	0	2			▼			▼		2	5 0
	02 *250 £											
	[PR OPEN]					▼					0	0 0
	150					▼					1	5 0
	[DEPT 2]	0	2			▼			▼		1	5 0
	02 *150 £											
<b>Single-Item Dept- -- outside a sale --</b> A Dept.8 item of \$1.40 (Dept.8 is programmed as an Open, Single-item dept) (The sale is immediately finalized as cash.)	140										1	4 0
	[DEPT 8]	0	8								1	4 8
										▼		

Thank you  
Call again

05-11-89

23001

08 \*140 M

\*008 X

\*148 SP

18-0018

12-12

## PLU ENTRY

### Preset PLU (Itemized PLU)

(--- → ) | PLU Code | [PLU] → ---

### Open PLU (Itemized PLU)

(--- → ) | PLU Code | [PLU] | Price | [AMT] → ---

### Single-Item PLU

A PLU linked to a Single-item Department will automatically function as a Single-item PLU, and immediately finalizes the sale as cash on an entry when operated outside a sale.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY										
		PLU		AMOUNT								
		OPT	RPT	SL	AL	RE	TX	ST	TL	CO	SH	TR
<b>Preset PLU (Itemized)</b>  An item of PLU No.11 (preset price \$3.00)  (The sale is not finalized until a media key is operated.)	11								0	1	1	
	[PLU]	0	1	1		▼		▼	3	0	0	
	01111*300 TM											
<b>Open PLU (Itemized)</b>  To enter \$2.00 through PLU No. 500 (open- PLU).	500								5	0	0	
	[PLU]	5	0	0					0	0	0	
	200	5	0	0					2	0	0	
	[AMT]	5	0	0		▼		▼	2	0	0	
	50011*200 TM											

# REPEAT ENTRY

## (1) Department Repeat

- Open Dept

(--- → ) | Price | [Open DEPT] → [same DEPT] → ---

- Preset Dept

(--- → ) | [Preset DEPT] → [same DEPT] → ---

## (2) PLU Repeat

- Open PLU

(--- → ) | PLU Code | [PLU] | Price | [AMT] → [AMT] → ---

- Preset PLU

(--- → ) | PLU Code | [PLU] → [PLU] → ---

Depress the last key of the sequence as many times as the desired count.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY											
		PLU		AMOUNT									
		DPT	RPT	SL	AL	RE	( )	PS	TX	ST	TL	CO	JR
To enter the following item within a sale:  3 items of Dept.1 (open dept), unit price \$1.20	120										1	2	0
	[DEPT 1]	0	1			▼			▼		1	2	0
	[DEPT 1]	0	1	2		▼			▼		1	2	0
	[DEPT 1]	0	1	3		▼			▼		1	2	0
	[DEPT 2]	0	2			▼			▼		2	5	0
	[DEPT 2]	0	2	2		▼			▼		2	5	0
2 items of Dept.2 (preset dept), preset price \$2.50	01 *120 ₪												
	01 *120 ₪												
	01 *120 ₪												
	02 *250 ₪												
	02 *250 ₪												
	02 *250 ₪												

## QUANTITY EXTENSION (MULTIPLICATION)

### (1) Department Multiplication

- Preset Dept

(--- →) | Quantity | [@/FOR] [Preset DEPT] → ---

└─ may be omitted if the Quantity is one digit

- Open Dept

(--- →) | Quantity | [@/FOR] | Price | [Open DEPT] → ---

- Preset Price Open

(--- →) | Quantity | [@/FOR] | Price | [Preset DEPT] → ---

↑     ↑     ↑     ↑  
[PR OPEN] or [OPEN]  
anywhere of these timings

### (2) PLU Multiplication

- Preset PLU

(--- →) | Quantity | [@/FOR] | PLU Code | [PLU] → ---

- Open PLU

(--- →) | Quantity | [@/FOR] | PLU Code | [PLU] | Price | [AMT] → ---


SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY										
		PLU		AMOUNT								
		DPT	RPT									
		SL	AL	RE	( )	FB	TX	ST	IL	CG	TR	BT
To enter the following items:  5 items of PLU No.11 (preset PLU), preset price \$1.00.  6 items of PLU No.500 (open PLU), unit price \$2.00.	5								0	0	5	
	[@/FOR]								0	0	5	
	11								0	1	1	
	[PLU]	0	1	1	▼		▼	1	5	0	0	
	6				▼				0	0	6	
	[@/FOR]				▼				0	0	6	
	500				▼				5	0	0	
	[PLU]	5	0	0	▼				0	0	0	
	200	5	0	0	▼				2	0	0	
	[AMT]	5	0	0	▼		▼	1	2	0	0	

5	X	
	300	@
011	1500	F
6	X	
	200	@
500	1200	F

## SPLIT PACKAGE PRICING

(1) Department

- **Preset Dept**

(--- → ) | Purchased Q'ty | [ @/FOR ] | Whole Package Q'ty | [ @/FOR ] 

- Open Dept

```

(--- → ) | Purchased Q'ty | [@/FOR] | Whole Package Q'ty | [@/FOR] _____
                                     |
                                     |→ | Whole Package Price | → [Open DEPT] → ---

```

(2) **PLU**

- **Preset PLU**

(--- →) | Purchased Q'ty | [@/FOR] | Split-Price Type PLU Code | → [PLU] → ...

- Open PLU

(--- → ) | Split-Price Type | PLU Code | **[PLU]** | Purchased Q'ty | **[@/FOR]** \_\_\_\_\_  
 ↳ | Whole Package Price | → **[AMT]** → ...

**NOTES :**

1. Purchased Quantity ..... max. 3 digits integral only  
Whole Package Quantity ..... max. 3 digits integral only  
Whole Package Price ..... max. 6 digits
2. Usually the fraction of the result is rounded up in split price operations.  
However, it is programmable to round up the fraction of each item price.  
(item price = Whole Package Price ÷ Whole Package Q'ty)
3. Only the Split-Price Type PLUs (i.e. with Whole Package Quantity programmed) allow split package pricing operations using PLUs.

[illegible]

# RETURNED MERCHANDISE or DESIGNATED LINE VOID

[RTN MDSE] → DEPARTMENT ENTRY  
 PLU ENTRY  
 QUANTITY EXTENSION  
 SPLIT PACKAGE PRICING → ---

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY										
		PLU		AMOUNT								
		DPT	RPT	SL	AL	RE	TX	TX	ST	TL	CG	SH
<b>Return Entry Outside a Sale</b>  A customer comes up to return a \$5.00 item of Dept.1. No other sale items at this time.  The sale total is now negative, therefore the total amount displayed must be paid back to the customer in cash.	[RTN MDSE]									0.	0	0
	500									5.	0	0
	[DEPT 1]	0	1			▼	▼	▼		5.	0	0
	[AT/TL]									5.	5	5
										▼		

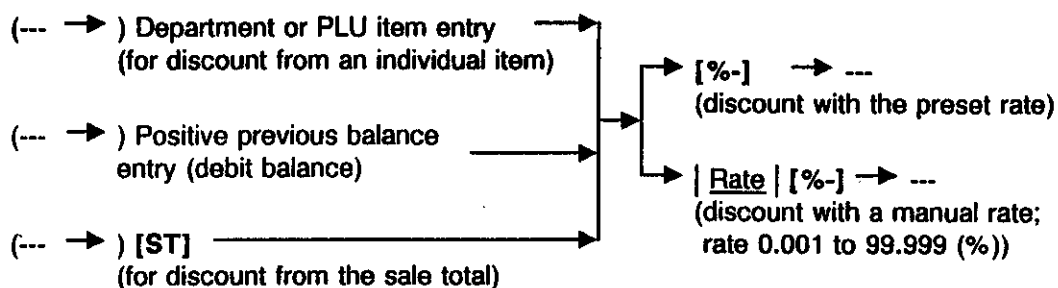
Thank you  
Call again

05-11-89  
23001

01 \*500 RT  
 -055 P  
 -555 SL  
 18-0010  
 12-32

## PERCENT DISCOUNT

(PERCENT CHARGE operates the same with [% +] instead of [%-])

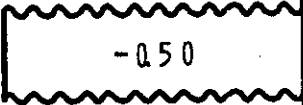


SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY											
		PLU		AMOUNT									
		DPT	RPT	SL	AL	RE	(-)	PS	TX	ST	TL	CG	ST TB
<b>Percent Discount from a Department Item</b>  A Dept.1 item of \$2.00 is entered.  5% is discounted from the above item.  .....	200										2.	0	0
	[DEPT 1]	0	1			▼			▼		2.	0	0
	[%-] (if 5% is preset)					▼	▼				0.	1	0
	<div>01 *2.00 £ 5 %- -0.10</div>												
<b>Percent Discount from a Sale Total</b>  10% is subtracted from entire sale total.  .....	Sale items have been entered												
	[ST]					▼			▼	▼	5.	8	0
	10 (Manual % Rate)					▼					0.	1	0
	[%-]					▼	▼				0.	5	0
	<div>*5.00 \$ 10 %- -0.50</div>												

## DOLLAR DISCOUNT

(--- → ) | Amount to be discounted | [DOLL DISC] → ---

(An amount exceeding the subtotal cannot be entered through the [DOLL DISC] key unless the option "Credit Balance Allowed" is selected.)

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY											
		PLU		AMOUNT									
		DPT	RPT										
		SL	AL	RE	( )	PS	TX	ST	TL	DO	TR		
During a sale an amount of \$0.50 is discounted from the sale. .....	Sale items have been entered.												
	50									0	5	0	
	[DOLL DISC]			▼						0	5	0	
				▼	▼								

## VOID



**NOTE :** The amount entered with the [VOID] key must not exceed the sale total amount unless the option "Over-subtraction using [VOID] Allowed" is selected.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY											
		PLU		AMOUNT									
		DPT	RPT	\$L	AL	RE	(-)	RS	TX	BT	TL	DO	TR
You enter the following items during a sale :  • Dept. 1 \$1.00 • Dept. 2 \$1.50  Then you find that the first item (Dept 1) was wrong and must be deleted.	100										1	0	0
	[DEPT 1]	0	1			▼			▼		1	0	0
	[PR OPEN]					▼					0	0	0
	150					▼					1	5	0
	[DEPT 2]	0	2			▼			▼		1	5	0
	[VOID]					▼					0	0	0
	100					▼					1	0	0
	[DEPT 1]	0	1			▼	▼		▼		1	0	0
						▼							
						▼							
<div>01 *1.00 TM 02 *1.50 TM 01 *1.00 TM VO</div>													

# ITEM CORRECT (Last Line Voiding)

(--- → )	<b>DEPARTMENT ENTRY</b> (except Single-item Dept) <b>PLU ENTRY</b> (except Single-item PLU) <b>REPEAT ENTRY</b> <b>QUANTITY EXTENSION</b> (except Single-item Dept) <b>PERCENT DISCOUNT</b> <b>DOLLAR DISCOUNT</b> <b>RECEIVED-ON-ACCOUNT</b> <b>PAID-OUT</b> <b>MANUAL TAX</b> <b>SPLIT PACKAGE PRICING</b> <b>PREVIOUS BALANCE, CHARGE POSTING</b>	→ <b>[ITEM CORR]</b> → ---
		<p>The very last item in the sale will be deleted from the sale total.</p>

- NOTES :** 1) When **[ITEM CORR]** is operated after a **REPEAT ENTRY**, only the last item of the repeated entries is deleted.
- 2) When **[ITEM CORR]** is operated after a **QUANTITY EXTENSION**, the entire product (the result of multiplication) is deleted.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY										
		PLU		AMOUNT								
		DPT	HPT	DL	AL	RE	FS	TX	ST	TL	CG	SH
A Dept.2 item (preset price \$2.50) is entered, but you immediately notice that the entry is wrong.	<b>[DEPT 2]</b>	0	2							2	5	0
	<b>[ITEM CORR]</b>	0	2	0						2	5	0
5 x Dept.1 item of unit price \$1.30 is entered, but you immediately notice that the entry is wrong.	5									0	0	5
	<b>[@/FOR]</b>									0	0	5
	130									1	3	0
	<b>[DEPT 1]</b>	0	1							6	5	0
	<b>[ITEM CORR]</b>	0	1	0						6	5	0
	<div> 5 X  130 @  01---*650-ES </div>											

## NON-ADD NUMBER PRINT

(--- → ) | Number to be printed as reference | [#] → ---  
 max. 8 digits; 1 to 99999999

Operation Samples in : RECEIVED-ON-ACCOUNT  
 PAID-OUT  
 CHARGE SALE TOTAL

## LISTING CAPACITY OPEN

Depress [LC OPEN] (or [OPEN]) prior to or any time during an entry of a department or a PLU sequence (including REPEAT and QUANTITY EXTENSION entries). Please note that the [LC OPEN] or [OPEN] key must be pressed, at latest, before the final key of the entry sequence. The HALC (High Amount Listing Capacity) for the department or PLU will be extended with two higher digits. For entering an amount still exceeding these limits, you must call for a Manager Intervention.

## TAX STATUS MODIFICATION, FOOD STAMP STATUS MODIFICATION

Depress [TX/M] (and/or [TX1/M], [TX2/M], [TX3/M]) in the same way as [LC OPEN] is operated, prior to or any time during the entry sequence of the required Department, PLU, or any other tax-status-programmable item ([DOLL DISC], [%-], [%+]). The taxable status is reversed to non-taxable, and vice versa. The [FS/M] key operates the same to reverse from the Food Stampable status to non-stampable, and vice versa, of the required item.

# MANUAL TAX ENTRY (where irregular tax amount addition is applied)

(--- →) | Irregular Tax Amount to be added | [TAX] → ---

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY											
		PLU		AMOUNT									
		DPT	RPT	SL	AL	RE	( )	FB	TX	ST	TL	CG	TR
Sale items have been entered.  You enter a manual tax amount of \$0.50 to be added.	50										0	5	0
	[TAX]										0	5	0

## SUBTOTAL (Sale Total Without Taxes) READ

--- → [ST] → --- The sale total of the items so far entered is displayed and printed.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY											
		PLU		AMOUNT									
		DPT	RPT	SL	AL	RE	( )	FB	TX	ST	TL	CG	TR
Sale items have been entered.  You want to know the subtotal here.	[ST]										6	1	1

# TAXABLE TOTAL (Sale Total With Taxes) READ

--- → [TXBL TL] → --- The sale total including tax due of the items so far entered is displayed, but not printed.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY											
		PLU											
		OPT	RPT		AMOUNT								
		SL	AL	RE	1	PS	TX	BT	TL	CG	SH	TR	
Sale items have been entered.  You want to know the current sale total including taxes.	[TXBL TL]								6.	1	1		

# TAX EXEMPT

- → [TX1/M] [EX] → Sales Finalization (to exempt Tax 1 only)
  - → [TX2/M] [EX] → Sales Finalization (to exempt Tax 2 only)
  - → [TX3/M] [EX] → Sales Finalization (to exempt Tax 3 only)
  - → [TX1/M] [TX2/M] [EX] → Sales Finalization (to exempt Tax 1 and Tax 2)
  - → [TX2/M] [TX3/M] [EX] → Sales Finalization (to exempt Tax 2 and Tax 3)
  - → [TX1/M] [TX3/M] [EX] → Sales Finalization (to exempt Tax 1 and Tax 3)
  - → [EX] → Sales Finalization
  - → [TX1/M] [TX2/M] [TX3/M] [EX] → Sales Finalization
- (to exempt all taxes)

**NOTE :** On depressing [EX], the sale total excluding the exempted-tax(es) is displayed, and the pre-tax amount of the sale portion subject to the tax exemption is printed.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY										
		PLU		AMOUNT								
		DPT	RPT	SL	AL	RE	T	TX	ST	TL	CG	SH
Sale items have been entered.  You want to know the sale total including tax.  You must exempt tax from this sale for some reason  Finalized as cash sale.	[TXBL TL]									6.	1	1
	[EX]					▼		▼	▼	5.	5	0
	[AT/TL]									5.	5	0
										▼		

₩1  
 ★550  
 ₩2  
 ★550  
 ★550 ₩2  
 18-0025  
 13-09

# FOOD STAMPABLE TOTAL READ, FOOD STAMP TENDERING

--- → [FSTL TEND] → | Food Stamp Tendered Amount | [FSTL TEND] → ---

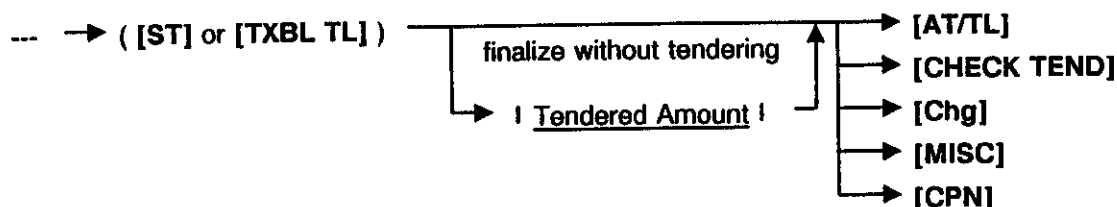
Display the Food Stampable total.

Tendering in Food Stamp (This must be operated first of all the payments in finalizing the sale if food stamps are part of the payment.)

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY											
		PLU		AMOUNT									
		DPT	RPT	SL	AL	RE	( )	PS	TX	BT	TL	CO	ST
Sale items have been entered.													
Food Stampable total is read.	[FSTL TEND]									1	2	0	0
Tenders \$10.00 in food stamps.	1000					▼		▼			▼		
The sale is not finalized with the balance still due is displayed.	[FSTL TEND]					▼				1	0	0	0
						▼					2	0	0
						▼							▼

\*1200 TL  
 \*1200 PS TL  
 \*1000 PS

# SALE FINALIZATION BY MEDIA KEYS



- NOTES :** 1. Whether each Media Key is depressed with a prior tendered amount entry or not is determined by the key status selections programmed for each media key.
2. If the sale total is zero or negative, any media key must be depressed without a tender amount entry even if the key is programmed as "Tender" key.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY												
		PLU		AMOUNT										
		DPT	RPT	SL	AL	RE	( )	FS	TX	ST	TL	CG	TH	
<b>Cash Tender</b>  Sale items have been entered.  The customer wants to know the sale total.  The customer tenders \$10.00 cash.  The change of \$3.77 is displayed. Pay it back to the customer in cash.	<b>[TXBL TL]</b>  1000  <b>[AT/TL]</b>													
						▼				▼	▼	6.	1	1
						▼					1	0.	0	0
												3.	8	9
												▼		
<b>Charge Sales Total</b>  Sale items have been entered.  The customer wants to use his credit account. You enter his Customer Account No. 1001 as reference.	<b>[ST]</b>  1001 [#]  <b>[Chg]</b>													
						▼				▼	▼	6.	1	1
											1	0.	0	1
						▼								
												6.	1	1
												▼		

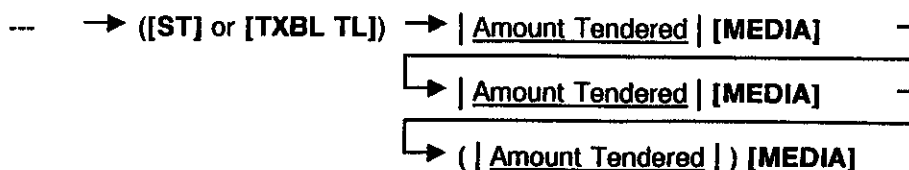
```

      *0.61 TX
      *6.11 TL
      *10.00 CA
      *3.89 CS
13-0030
13-20
  
```

```

#1001
      *0.61 TX
      *6.11 TL
13-0032
13-21
  
```

**MULTI-TENDER** (Short-tender repeated by the same media)



**NOTE :** In MULTI-TENDER operation, the sale is finalized and the drawer opens on reaching the sale total amount.

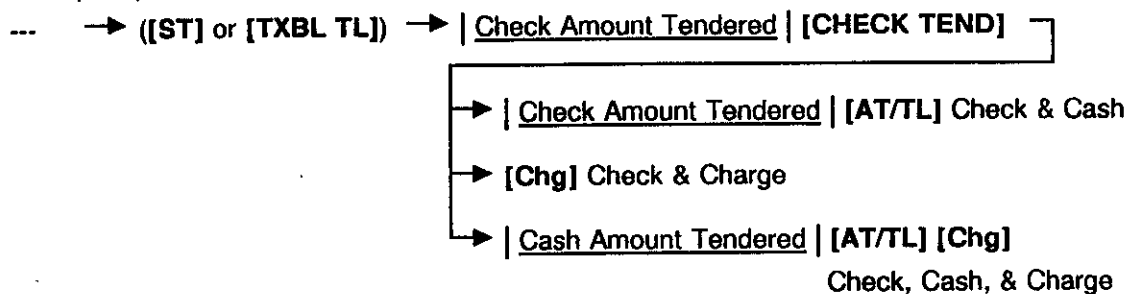
SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY												
		PLU		AMOUNT										
		DPT	RPT	BL	AL	RE	(-)	FS	TX	ST	TL	CO	SH TR	
Sale items have been entered.														
The customer first tenders \$5.00 cash, which is short. (The balance still due is displayed)	500  [AT/TL]			▼							5.	0	0	
				▼							0.	5	5	▼
The customer then tenders another \$5.00 in cash.	500			▼							5.	0	0	
The sale is now over-tendered, finalized, and change computed. Give the change to the customer in cash.	[AT/TL]										4.	4	5	▼

★0.55 TX  
★5.55 TL  
★5.00 CA  
★5.00 CA  
★4.45 CS

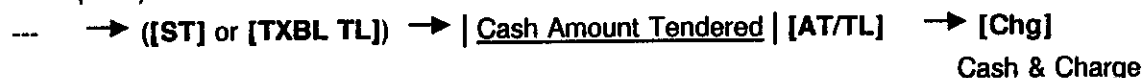
1J-0033  
13-22

## SPLIT-TENDER (Short-tender repeated by different media)

Example 1)



Example 2)



SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY											
		PLU		AMOUNT									
		DPT	RPT	SL	AL	RE	(-)	PS	TX	ST	TL	CG	SH
<b>Check &amp; Cash</b>  Sale items have been entered.  The customer first tenders a \$10.00 check. (The balance due is displayed.)  The balance is paid in cash, tendering \$5.00.  Give the change in cash to the customer.	1000  [CHECK TEND]  500  [AT/TL]				▼					1	0	0	0
					▼						3	2	8
					▼						5	0	0
					▼						1	8	0
											▼		
<b>Cash &amp; Charge</b>  Sale items have been entered.  The customer first tenders \$10.00, which is short. (The balance due is displayed.)  The customer asks to make the rest balance as his charge account.	1000  [AT/TL]  [Chg]				▼					1	0	0	0
					▼						3	2	0
											3	2	0
											▼		

\*120 TX  
 \*1320 TL  
 \*1000 CH  
 \*500 S  
 \*180 S  
 18-0037  
 13-27

\*120 TX  
 \*1320 TL  
 \*1000 S  
 \*320 CH TL  
 18-0038  
 13-28

# CHECK CASHING (No-sale cashing of non-cash media; allowed outside a sale only.)

| Check Amount to be Cashed | [CHECK TEND] ..... The drawer opens to enable the exchange.

**NOTE :** Other non-cash media keys may be used for this purpose if programmed to allow no-purchase cashing.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY										
		PLU										
		DPT	RPT	AMOUNT								
		SL	AL	RE	1	1	PS	TX	BT	TL	CO	SH
A customer asks the store to cash a check of amount \$10.00 without relating to a sale.  The drawer opens. Receive the check and give \$10.00 cash out of the drawer to the customer.	1000								1	0	0	0
	[CHECK TEND]								1	0	0	0
										▼		

Thank you  
Call again

05-11-89

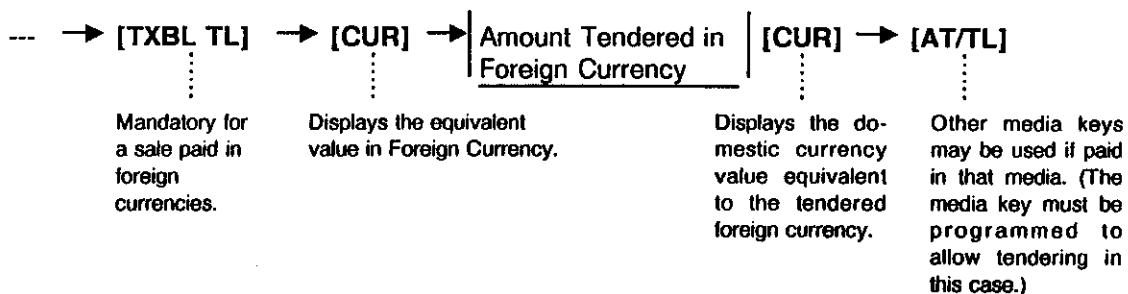
23001

\*1000 8F

18-0039

13-31

## SALE PAID IN FOREIGN CURRENCIES



- NOTES:**
1. When a tendering by a foreign currency occurs during a short tendered condition, the [TXBL TL] key will not be mandatory.
  2. The sale is finalized if over-tendered, with change due displayed in the domestic currency.  
If short-tendered, the balance due is displayed in the domestic currency value.
  3. A sale of negative balance cannot be finalized using any of the foreign currency keys.

[illegible]

# NO-SALE EXCHANGE FROM A FOREIGN CURRENCY TO THE DOMESTIC CURRENCY (Allowed outside a sale only)

[CUR] | Amount of foreign currency to be exchanged | [NS]

Display the zero-suppress form of CUR.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY									
		PLU		AMOUNT							
		DPT	RPT								\$H
<p>The customer asks the store to exchange his foreign currency of amount F100.00 into the domestic currency, with no purchase.</p> <p>The drawer opens.</p> <p>Receive the foreign currency, and give the amount of \$18.61 in the domestic currency out of the drawer.</p>	[CUR]								0	0	0
	10000					1	0	0	0	0	0
	[NS]						1	8	6	1	

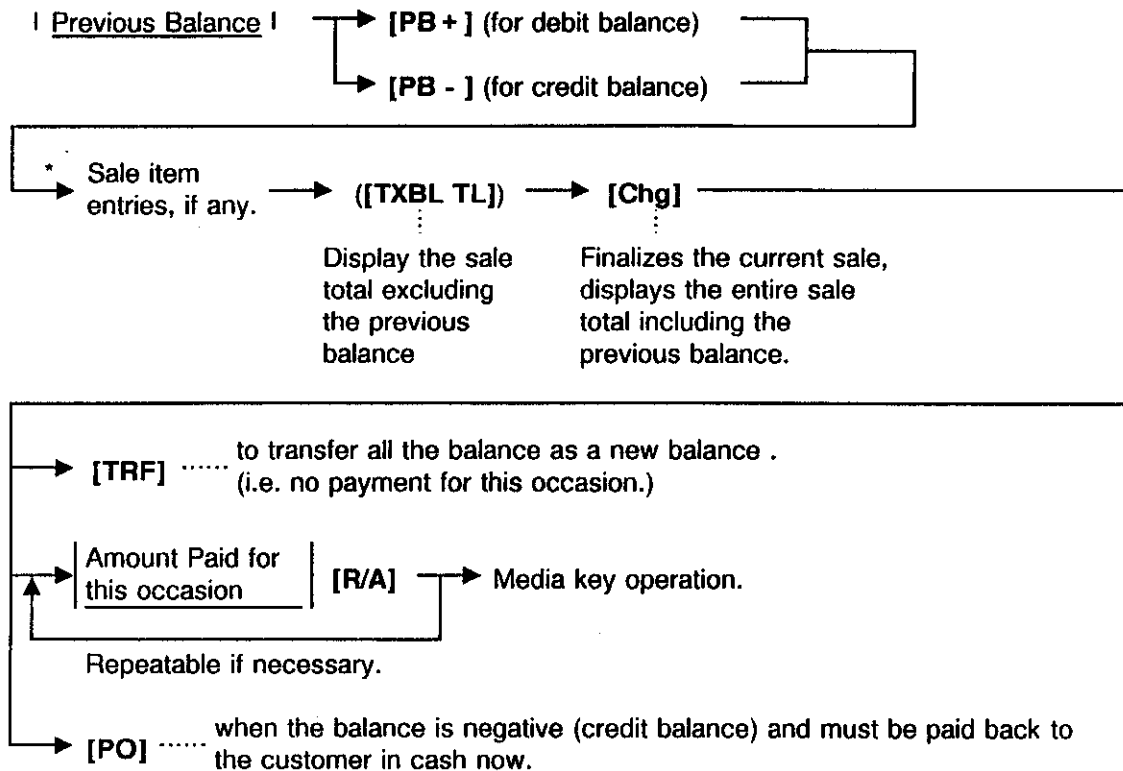
Thank you  
Call again

05-11-89  
23001

★ 2  
1★ ★1861 00  
10-0043  
13-36

## PREVIOUS BALANCE, CHARGE POSTING

- (1) To initiate charge posting for a new customer  
     | 0 | [PB + ] (or [PB - ]) → Follow the line marked with "★" in operation 2 below.
- (2) Charge posting with a previous balance first entered (pre-select) with or without PAYMENT



- (3) Charge posting with a previous balance entered during a sale (post-select)  
 A previous balance may be entered not only before sale items but also after or between them if the [Chg] key has not been depressed. Multiple previous balance entries are possible within a sale (for the purpose to sum up multiple accounts into one, etc.)
- (4) Percent rate addition to a previous balance

| Previous Balance | [PB + ] → ( | Rate | ) [% + ] →

**NOTE :** 1) The [% -] key operates the same for percent discounting.

2) The previous balance entered through [PB - ] (credit balance) will not allow % + or %- operation.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY											
		PLU			AMOUNT								
		DPT	RPT										
		SL	AL	RE	(-)	FB	TX	ST	TL	CG	TR		
A customer has come. This customer has a previous balance of \$4.00.	400 [PB +]			▼					4	0	0		
Three items of PLU No. 11	3[@/FOR] 11[[PLU]	0	1	1	▼		▼		9	0	0		
All his balance is read.	[Chg]			▼				1	3	9	9		
He will pay \$8.00 in cash.	800 [R/A]			▼					8	0	0		
Then the balance was carried forward to the next time.	[AT/TL]								8	0	0		
<hr/>													
The customer comes again. Then he said he would pay all the previous balance.	599 [PB +]			▼					5	9	9		
	[Chg]			▼					5	9	9		
	599 [R/A]			▼					5	9	9		
He pays the exact amount in cash.	[AT/TL]								5	9	9		
The balance of the customer is zero.													

Thank you  
Call again

05-11-89  
23001

\*400 PB  
3 X  
300 @  
011.2 \*900 TM  
\*099 TX  
\*1399 CH TL  
\*800 CA RA  
\*800 CA TL  
\*599 TF  
10-0056  
13-28

Thank you  
Call again

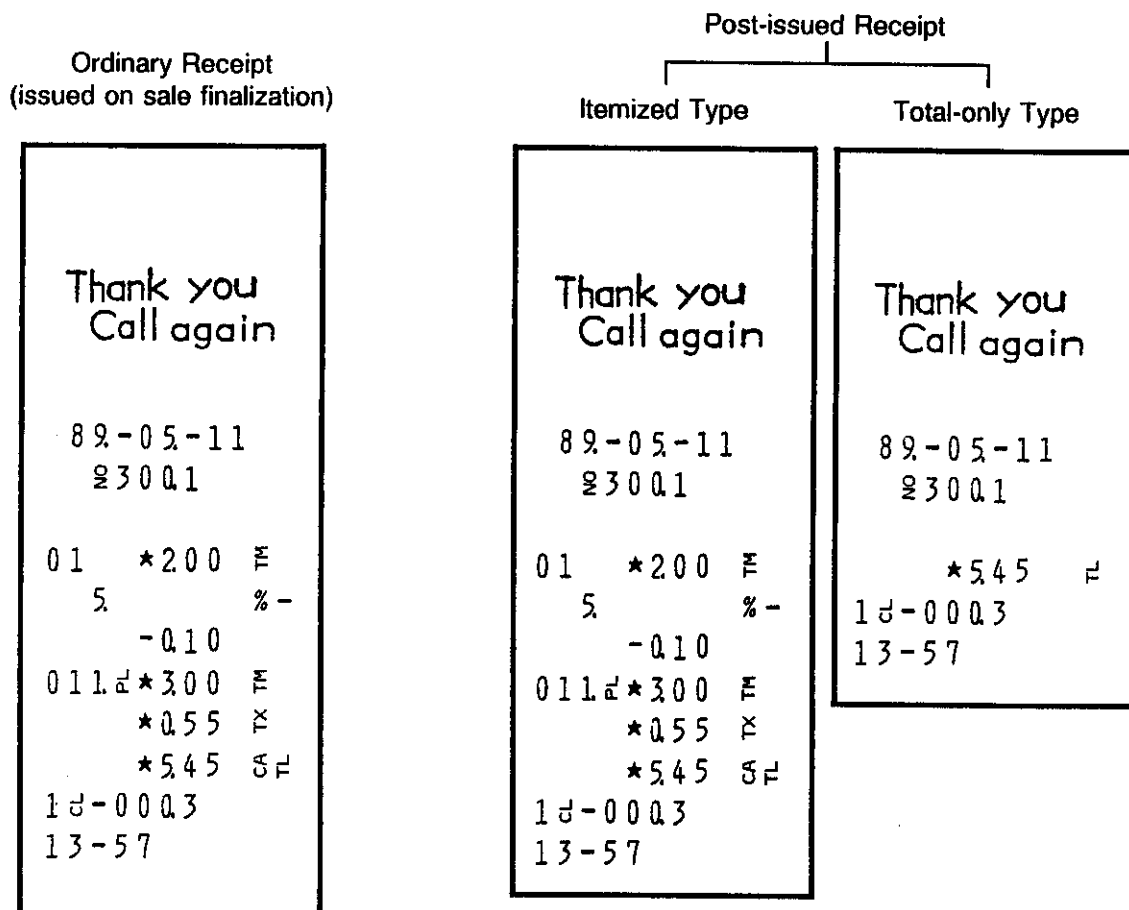
05-11-89  
23001

\*599 PB  
\*599 CH TL  
\*599 CA RA  
\*599 CA TL  
\*000 TF  
10-0055  
13-31

**RECEIPT POST-ISSUE** (Allowed outside a sale)

A sale is finalized → [RECEIPT ISSUE]

**NOTE :** The post-issue receipt is not available for Received-on-Account, Paid-Out, or Charge posting transactions.



## VALIDATION PRINT

After entering the required item through a transaction key or a media key.

→ Insert a validation slip into the validation slot. Make sure that the "SLP" trimark is steadily lit. → [VALI DATE]

**NOTES :** 1. No other operations can follow until the validation slip once printed is withdrawn.

2. The following are programmable selections relating to validation :

(1) PRINT FORMAT

- a) Consecutive No. Print/Non-Print
- b) Clerk ID Print/Non-Print

(2) MULTI- or SINGLE-VALIDATION

(Number of times of validation print allowed for the same item.)

(3) VALIDATION COMPULSORY status on transaction keys.

(4) When the sale-finalizing media key is programmed with Validation Compulsory status, the drawer will open after the compulsory validation print.

### RECEIPT SAMPLE

Thank you  
Call again

05-11-89  
23001

01 \*200 ₪  
5 %-  
-010

011.2 \*300 ₪  
\*055 ₪  
\*545 ₪

10-0104

### VALIDATION PRINT

104 05-11 01 \*200 ₪

104 05-11 -010

104 05-11 011.2 \*300 ₪

104 05-11 \*545 ₪

## OTHER INCOME ENTRY

Used to enter items which do not directly become sales for the store, such as lottery, postage, gift wrapping fee, size adjustment fee, utility (payment of electricity and gas), and donation.

SAMPLE OPERATION CONTENTS	KEY OPERATION	DISPLAY											
		PLU		AMOUNT									
		DPT	RPT										
		SL	AL	RE	1	PS	TX	ST	TL	CG	BT	TR	
A customer comes up to buy a gift of \$50.00 for Dept. 3.  Then he asks the cashier to wrap the gift. (Dept. 11 is preset as an other income dept)	5000							5	0	0	0		
	[DEPT 3]	0	3		▼		▼	5	0	0	0		
	200				▼				2	0	0		
	[DEPT 11]				▼					2	0	0	
	[AT/TL]								5	2	0	0	
									▼				

Thank you  
Call again

05-11-89

23001

03 ★50.00 ₪

11 ★2.00

★0.00 ₪

★52.00 ₪

18-0022

14-02

## REMOTE SLIP PRINTER (hardware option) OPERATION

The TEC Remote Slip Printer RS-2 may be connected to the MA-227 series as an optional device.

1. The remote slip printer will automatically activate printing when the power switch of the remote slip printer turns on and the slip has properly been set to the printer table.
2. The print/non-print status of each item is selected by setting the corresponding DIP Switch of the remote slip printer to ON/OFF.

### ENTRY IN THE " ☐ " (NEGATIVE) Mode (Mode Lock : ☐ )

When several items are returned at a time, turn the Mode Lock to the ☐ position using MA key which is kept by the store manager. Then enter each item just in the normal registering operation made in the "REG" mode. The ☐ position of the Mode Lock process the entered items exactly in the reverse way, i.e., positive items into negative, and negative into positive.

#### OPERATION AND RECEIPT SAMPLE

RECEIPT ISSUED IN "REG" or "MGR" MODE

Thank you  
Call again

89-05-11  
2300.1

01	★200	TM
5		% -
	-010	
011	★300	TM
	★055	TX
	★545	SA FL
12	-000.8	
14	-17	

These two receipt contain the same sale items and media finalization. The operations are also the same except the Mode Lock position.

The cashier merely follows the purchase receipt (on the left) and enters the same items in the ☐ position, finalizing with the same media, in case a customer has returned or canceled the entire sale after the cashier had finalized that sale.

The ☐ mode header (" RT) is printed at the top of the sale contents in the ☐ mode receipt.

RECEIPT ISSUED IN " ☐ " MODE

Thank you  
Call again

89-05-11  
2300.1

	★★	RT
01	★200	TM
5		% -
	-010	
011	★300	TM
	★055	TX
	★545	SA FL
12	-000.9	
14	-17	

## WHEN A POWER FAILURE OCCURS ...

If a power failure occurs, the sales memory is protected by the back-up battery; registration and printing will normally be performed on regaining the power.

ECR CONDITION at the time of POWER FAILURE		DISPLAY INDICATION on the POWER RECOVERY
OUTSIDE A SALE	No key-in has been operated.	"0" display.
	Numeric or Declaration keys have been entered but no motorized keys.	Same as above.
DURING A SALE	No Numeric or Declaration keys have been entered.	Regains the display content that was obtained just before the power failure.
	Numeric or Declaration keys have been entered.	Same as above.

In the event of a power failure, it is suggested to check the receipt print content before the receipt is handed to the customer.

## 9. READ (X) AND RESET (Z) REPORTS

The following table shows available reports and the the key operations to issue those reports. The contents of the X and Z reports are the same if both are available, except that:

- 1) Symbol X for X (read) reports, and Z for Z (reset) reports are printed as the header.
- 2) A reset count is printed near the end of a Z report (but not on X reports).
- 3) All the resettable counters and totals will be reset on a Z report issuance, while they will not be reset on an X report issuance. Therefore, X reports may be taken at any time and any number of times during the day or at the end of the day.

TABLE OF X AND Z REPORTS

REPORT NAME	MODE LOCK	KEY OPERATION	Sample Page
<u>* DAILY READ AND RESET</u>			
DAILY READ	X	] [AT/TL]	59
DAILY RESET (DEPARTMENT + FINANCIAL + CLERK + GROSS PROFIT)	Z		
<u>PLU READ AND RESET</u>			
ALL PLU READ	X	] [PLU]	
ALL PLU RESET	Z		
ZONE PLU READ	X	] Zone-start PLU Code   @/FOR   Zone-end PLU Code   [PLU]	63
ZONE PLU RESET	Z		
<u>* CLERK READ AND RESET</u>			
INDIVIDUAL CLERK READ	X	] set the required Clerk Key to ON → 1 [AT/TL]	64
INDIVIDUAL CLERK RESET	Z		
<u>HOURLY RANGE READ AND RESET</u>			
HOURLY READ	X	] 10 [AT/TL]	65
HOURLY RESET	Z		
<u>DEPARTMENT READ AND RESET</u>			
ALL DEPARTMENT READ	X	] 11 [AT/TL]	66
ALL DEPARTMENT RESET	Z		
<u>DEPARTMENT GROSS PROFIT READ</u>	X	12 [AT/TL]	67

REPORT NAME	MODE LOCK	KEY OPERATION	Sample Page
<u>* MEDIA-IN-DRAWER READ</u>	X	[#] (or [#CID], [#NS])	68
<u>* GT READ AND RESET (ACCUMULATED DAILY)</u>			
GT READ	X	] 20 [AT/TL]	69
GT RESET	Z		
<u>DEPARTMENT GT READ AND RESET</u>			
ALL DEPARTMENT GT READ	X	] 21 [AT/TL]	69
ALL DEPARTMENT GT RESET	Z		
<u>DEPARTMENT GROSS PROFIT GT READ</u>	X	22 [AT/TL]	69

- NOTES :**
1. The drawer will open on the depression of the final key of the KEY OPERATION for the reports marked with " \* " in the table.
  2. No clerk key is necessary to issue reports except CLERK READ AND RESET.
  3. Refer to the report samples on the following pages. As for the program data reading which is also available in the " X " mode, see the "VERIFICATION OF PROGRAMMED DATA".

## DAILY READ or RESET REPORT

Mode Lock : X for read  
Z for reset,  
[AT/TL].

Thank you  
Call again

05-11-89  
23001

X

Report Header ("X" for read "Z" for reset)

Grand Total

\*37251 6

111 8

Gross Sale Item Count

\*37251 8

Gross Sale Amount

Department 1 Customer Count

01 20 3

48

Item Count

\*15183

Total

4889 %

Sales Ratio

Department 2

02 8 3

12

\*2421

Group 1

01 \*

65

Item Count

\*20409

Total

59490 %

Group Sales Ratio

Group 2

02 \*

21

\*7015

55150 %

Group 3

03 \*

8

\*2540

53700 %

Group 4

04 \*

1

\*900

53169 %

	1	% +	Percent Charge Count
	*0.19	% +	Percent Charge Amount
TAX 1	1		
	*10.66	%	TAX 1 Amount
TAX 2	2		
	*10.49	%	TAX 2 Amount
TAX 3	3		
	*4.95	%	TAX 3 Amount
Manual TAX	4		
	*0.50	%	Manual TAX Amount
	97	%	Net Sale with Tax Item Count
	*331.93	%	Net Sale with Tax Amount
	0	% -	Percent Discount on Subtotal count
	*0.00	% -	Percent Discount on Subtotal Amount
	1	-	Dollar Discount Count
	*0.50	-	Dollar Discount Total
All Media Sales Total Customer Count	45	CU TL	
All Media Sales Total Amount	*373.93	TL	
Cash Sales Customer Count	23	CU	
Cash Sales Amount	*211.66	CU TL	
	1	CU	Check Sales Customer Count
	*5.50	CU TL	Check Sales Amount
Charge Sales Customer Count	3	CU	
Charge Sales Amount	*8.10	CU TL	
	0	CU	Misc Sales Customer Count
	*2.00	CU TL	Misc Sales Amount
Coupon Sales Count	0	CU	
Coupon Sales Amount	*5.30	CU TL	
	1	CU	Food Stamp Sales Customer Count
Received-on-Account Count	*25.00	CU TL	Food Stamp Sales Amount
Received-on-Account Amount	4	RA	
	*25.00	RA	
	2	PO	Paid-out Count
	*7.70	PO	Paid-out Amount
Cash-in-drawer Amount	*122.77	CA ID	
	2	CK	Check Sales Count
	*20.00	CK ID	Check-in-drawer Amount
Misc Sales Count	1	MS	
Misc-in-drawer Amount	*2.00	MS ID	
	2	CP	Coupon Sales Count
	*5.30	CP ID	Coupon-in-drawer Amount
Food Stamp Sales Count	3	FS	

Food Stamp-in-drawer Amount	*2500	FS ID	
Food Stamp Change Amount	*000	FS CG	
Item Correct (on Depts) Count	2	VD	
Item Correct (on Depts) Amount	*900	VD	
	2		
	1	VD	[VOID] Count
	*100	VD	[VOID] Amount
	3		
	0	VD	Item Correct (on other items) Count
	*000	VD	Item Correct (on other items) Amount
	-1	% -	Percent Discount on Line Items Count
	-0.25	% -	Percent Discount on Line Items Total
Returned Merchandise Item Count	2	RT RT	
Returned Merchandise Amount	*1020	RT RT	
Negative Tax Amount	-0.55	TX	
	2		Negative Mode
	2	RT RT	Negative Mode ( <input type="checkbox"/> ) Count
	*1468	RT RT	Negative Mode ( <input type="checkbox"/> ) Total Amount
Accumulated Transfer Balance	-2008	TF TL	
Accumulated Transfer Positive	-2008	TF	
Accumulated Transfer Negative	*000	TF	
	2		Daily Transfer Positive
	-2008	TF	
	2		Daily Transfer Negative
	*000	TF	
Previous Balance Customer Count	17	CB PB	
Previous Balance Total	*11637	PB TL	
Previous Balance Payment Received	*13645	PB RA	
Previous Balance Paid Back to Customers	*000	PB PO	
	1		
	*17763	TX FL	
	2		Taxable 1 Total
	*20879	TX FL	
	3		Taxable 2 Total
	*4951	TX FL	
	2	EX	Taxable 3 Total
	1		Tax Exempt Customer Count
	*550		Tax 1 Exempt Total
	2		
	*800		Tax 2 Exempt Total
	3		
	*250		Tax 3 Exempt Total

	1 *			Foreign Currency 1
		5		Foreign Count
		*117200	ID	In-drawer Total
	2 *			
		0		
		*000	ID	
Individual Clerk Reports	1 J **			
Gross Sale Item Count		111	GS	
Gross Sale Item Amount		*37251	GS	
Net Sale Item Count		97	NS	
Net Sale Amount		*33193	NS	
Total Customer Count		45	CU TL	
All Media Total		*37393	TL	
Cash-in-drawer Total		*12277	CA ID	
Check-in-drawer Total		*2000	CK ID	
Misc-in-drawer Total		*200	MS ID	
Coupon-in-drawer Total		*530	CP ID	
Food Stamp-in-drawer Total		*2500	FS ID	
	1			
		*4058	-	Negative Data 1
	2			
		*050	-	Negative Data 2
		*770	PO	Paid Out Total
		*2660	T	Tax Total
	01	10	%	Department 1 Gross Profit Rate
		*1518		Department 1 Gross Profit Amount
	03	20	%	Department 3 Gross Profit Rate
		*561		Department 3 Gross Profit Amount
		669	%	
		*2079	TL	Gross Profit Amount Total of All Depts.
		0068		
	13-36			

## ALL PLU READ or RESET REPORT

Thank you  
Call again

05-11-89  
23001

X

005.2  
1  
\*0.25

010.2  
-1  
-0.29

011.2  
40  
\*120.00

500.2  
13  
\*260.0

53 TL  
\*145.96 TL  
006.9  
13-57

Mode Lock :  
X for read,  
Z for reset, [PLU]

PLU Code  
Item Count  
Amount

Total Count  
Total Amount

## ZONE PLU READ or RESET REPORT

Thank you  
Call again

05-11-89  
23001

X

005.2  
1  
\*0.25

010.2  
-1  
-0.29

011.2  
40  
\*120.00

40 TL  
\*119.96 TL  
007.1  
14-02

Mode Lock :  
X for read,  
Z for reset,

Zone-start PLU | [Z/FOR] | Zone-end PLU

[PLU]

Zone-start PLU Code

Zone-end PLU Code

## INDIVIDUAL CLERK READ or RESET REPORT

Mode Lock : X for read,  
Z for reset

Set the required clerk Key to  
ON.

1 [AT/TL]

Thank you  
Call again

05-11-89  
23001

X

Clerk No.	1	★★★	
Gross Sale Item Count	111		8
Gross Sale Total	★37251		8
Net Sale Item Count	97		2
Net Sale Amount	★33193		2
	45	8	TL
	★37393		TL
	★12277	CA	TD
	★2000	CK	TD
	★200	MS	TD
	★530	CP	TD
	★2500	FS	TD
	1		
	★4058		-
	2		
	★050		-
	★770		8
	★2660		X
	18-0072		
	14-17		

Total Customer Count	
All Media Total	
Cash-in-drawer Total	
Check-in-drawer Total	
Misc-in-drawr Total	
Coupon-in-drawer Total	
Food Stamp-in-drawer Total	
Negative Data 1	
Negative Data 2	
Paid Out Total	
Tax Total	

## HOURLY READ or RESET REPORT

Mode Lock : X for read  
Z for reset,  
10 [AT/TL].

Thank you  
Call again

05-11-89  
2300.1

Z10

★ ★

Up to 8:00  
No sales data is recorded.

08-00

31 3

★249.88

12:00 to 15:00  
Customer Count  
Sales Amount

12-00

14 3

★82.05

19:00 to 24:00  
No sales data is recorded.

15-00

19-00

0.0012

12-007.8

13-36

8:00 to 12:00

Customer Count

Sales Amount

15:00 to 19:00

No sales data is recorded.

## ALL DEPARTMENT READ AND RESET (When selected by the system option)

Mode Lock : X for read  
Z for reset,  
11 [AT/TL].

Thank you  
Call again

05-11-89  
23001

X11

01 20 3

48

\*15183

4889 %

02 8 3

12

\*2421

780 %

03 4 3

5

\*2805

903 %

Department Customer Count

Item Count

Total Amount

Sales Ratio

8

\*2540

53700 %

04 \*

1

\*900

53169 %

01 10 %

\*1518

03 20 %

\*561

669 %

\*2079 =

0066

11-15

## DEPARTMENT GROSS PROFIT READ

Mode Lock : X,  
12 [AT/TL].

Thank you  
Call again

05-11-89  
23001

X12  
01 10 %  
\*1518  
03 20 %  
\*561

Department Gross Profit Rate

Department Gross Profit Amount

669 %  
\*2079 =  
18-0073  
11-15

Gross Profit Amount Total of All Depts.

## MEDIA-IN-DRAWER READ REPORT

Mode Lock :X

[#] (or[#/CID], [# /NS])

	Thank you	
	Call again	
	05-11-89	
	23001	
	X	
	45 3 TL	All Media Sales Total Customer Count
	*37393 TL	All Media Sales Total Amount
	*12277 CS ID	Cash-in-drawer Total
	2 CK	Check Sales Count
	*2000 CK ID	Check-in-drawer Amount
Misc Sales Count	1 NS	Foreign Currency 1
Misc-in-drawer Amount	*200 NS ID	In-drawer Count
Coupon Sales Count	2 C	In-drawer Total
Coupon-in-drawer Amount	*530 C ID	
	3 FS	Food Stamp Sales Count
	*2500 FS ID	Food Stamp-in-drawer Amount
Foreign Currency 1	1 *	
Count	5	
Total	*117200 H	
	2 *	
	0	
	*000 ID	
	13-0076	
	13-28	

## GT READ or RESET REPORT

Mode Lock : X for read,  
Z for reset,  
20 [AT/TL]

Thank you  
Call again

05-11-89  
23001

X20  
\*37251 8  
111 8  
\*37251 8  
01 20 8  
48  
\*15183  
4889 %  
02 8 8

\*37251 8  
97 8  
\*33193 8  
45 8 8  
\*37393 8  
1  
\*4058 -  
2  
\*050 -  
\*770 8  
\*2660 8  
01 10 %  
\*1518  
03 20 %  
\*561  
669 %  
\*2079 8  
18-0077  
13-31

As for other GT reports, refer to the  
TABLE OF X AND Z REPORTS.

In GT reports, the contents and print  
formats are the same as their  
corresponding daily reports, except  
that report header is changing.

GT Reset Report Count (Print on RESET report)

## 10. PROGRAMMING OPERATIONS

This chapter is provided for the store programmer or the store manager who may have to change the programmed data of the MA-227 series ECR on a daily, weekly, or monthly basis. Usually, all the basic program data required for your store should be set before delivering the product by your local TEC representative. However, to change or add program data, please refer to this chapter.

### TABLE OF PROGRAMMING CONTENTS

PLU TABLE PROGRAMMING OR CHANGING .....	71
TIME SETTING OR ADJUSTMENT .....	73
DATE SETTING OR ADJUSTMENT .....	73
DEPARTMENT PRESET PRICE SETTING OR CHANGING .....	74
PLU PRESET PRICE SETTING OR CHANGING .....	75
% + AND %- PRESET RATE SETTING .....	76
FOREIGN CURRENCY EXCHANGE RATE SETTING .....	77

## PLU TABLE PROGRAMMING OR CHANGING

### CONDITION

To program new PLUs :

To change any programmed contents of PLUs (except the following case):

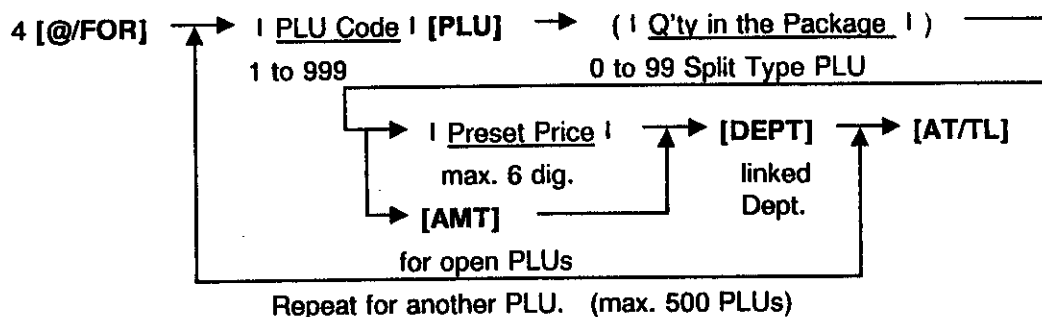
Any time outside a sale.

To change programmed contents of PLUs with sales data not zero.

After PLU Reset.

### OPERATION

Mode Lock : SET



- NOTES :**
- 1) ' | PLU Code | [PLU]' entry may be skipped if the PLU Code is sequential from that of the PLU just set.  
If this PLU code entry is skipped at very first PLU, the PLU code will automatically be programmed as PLU No. 1.
  - 2) The Positive/Negative status, Single-item/Itemized status, and Taxable/Non-taxable status are determined by those of the department to which each PLU is linked.
  - 3) An error results at entry time if the linked department is an other income department.

ex.) To program the following PLUs :

PLU Code	Qty in Package	Preset Price	Linked DP
PLU 5	3	\$1.00	4
PLU 10	7	\$2.00	2
PLU 11		\$3.00	1
PLU 20		Open	5

Mode Lock to **SET**, enter 4, depress **[@/FOR]**.

Enter 5, depress **[PLU]**.

Enter 100, depress **[DEPT 4]**.

Enter 10, depress **[PLU]**.

Enter 200, depress **[DEPT 2]**.

(Enter 11, depress **[PLU]**.)

Enter 300, depress **[DEPT 1]**.

Enter 20, depress **[PLU]**.

Depress **[AMT]**, then **[DEPT 5]**.

Depress **[AT/TL]** to end this program.

Thank you  
Call again

00-00-00  
20

#-0.4  
005.04  
3\*  
\*1.00 @  
010.02  
7\*  
\*2.00 @  
011.01  
\*3.00 @  
020.05 @  
004  
000.9  
00-06

## PLU TABLE DELETION

### CONDITION

After PLU Reset  
or anytime for PLUs with Sales Data "0".

### OPERATION

Mode Lock : **SET**

#-0.4  
020.0  
----- S  
003  
001.0  
00-07

4 **[@/FOR]** → **[ITEM CORR]** → | PLU Code | **[PLU]** → **[AT/TL]**

Repeat for other PLUs to be deleted.

ex.) To delete PLU No. 20 once set in the above programming operation :

Mode Lock to **SET**, enter 4, depress **[@/FOR]**

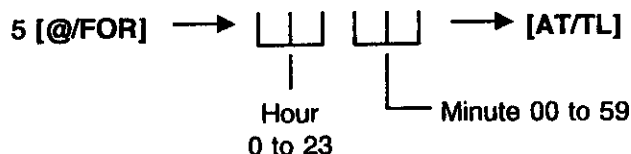
Depress **[ITEM CORR]**, enter 20, depress **[PLU]**.

Depress **[AT/TL]** to end this program.

## TIME SETTING OR ADJUSTMENT

**CONDITION** Any time outside a sale

**OPERATION** Mode Lock : **SET**



- NOTES :**
- 1) "If an hour value of more than 23 or a minute value of more than 59 is entered, no errors will result. However, in this case, set the time again with correct values.
  - 2) The date will not be changed by setting or adjusting the time.

ex.) To set the time to "10:58" (10:58 a.m.)

Mode Lock to **SET**, enter 5, depress [**@/FOR**]  
Enter 1 0 5 8 , depress [**AT/TL**].

Thank you  
Call again

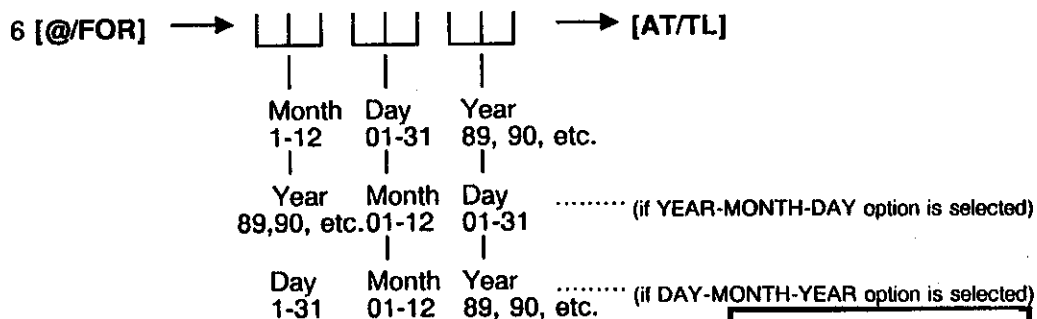
0 0 - 0 0 - 0 0  
2 0

# - 0 5  
1 0 - 5 8  
0 0 1 1  
1 0 - 5 8

## DATE SETTING OR ADJUSTMENT

**CONDITION** Any time outside a sale

**OPERATION** Mode Lock : **SET**



ex.) To set the date to "May 11 1989":

Mode Lock to **SET**, enter 6, depress [**@/FOR**]  
Enter (0) 5 1 1 8 9, depress [**AT/TL**].

**NOTE :** The extra day of a leap year is also counted in the circuit.

Thank you  
Call again

0 0 - 0 0 - 0 0  
2 0

# - 0 6  
0 5 - 1 1 - 8 9  
0 0 1 2  
1 0 - 5 8

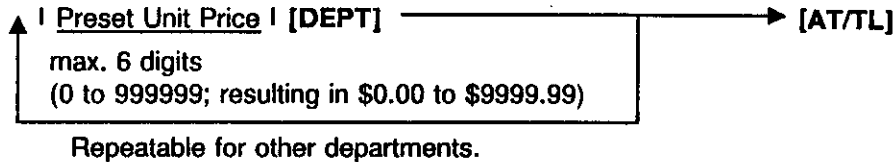
# DEPARTMENT PRESET PRICE SETTING OR CHANGING

## CONDITION

Any time outside a sale.

## OPERATION

Mode Lock : SET



**NOTE :** When the "Preset Unit Price" is skipped and only the [DEPT] key is depressed in the above operation sequence, the department will be an open-price department (i.e. and amount entry is always required before the [DEPT] key.)

ex.) To set Preset Unit Price \$2.50 to Dept. 2, and \$1.40 to Dept. 3:

Mode Lock to SET,

Enter 250, depress [DEPT 2].

Enter 140, depress [DEPT 3].

[AT/TL] to end.

ex.) To reset the Preset Unit Price (\$1.40) of Dept. 3 that was once set (i.e. to change it into an open-price department) :

Mode Lock to SET,

Simply depress [DEPT 3].

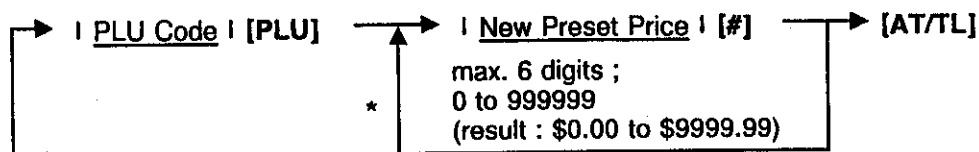
[AT/TL] to end.

Thank you Call again		
05-11-89		
23001		
#-00		
02	*250	@
03	*140	@
	0017	
	11-08	
#-00		
03		@
	0018	
	11-10	

## PLU PRESET PRICE SETTING OR CHANGING

**CONDITION** Any time outside a sale.

**OPERATION** Mode Lock : SET



Repeatable for another PLU.

(\* Repeatable from here if the PLU Code is sequential.)

- NOTES :** 1) Entering 0 (zero) as New Preset Price will preset the price of \$0.00.  
 2) In this operation, changes of the linked department or programming additional PLUs are not possible.

ex.) To change the preset price of PLU No. 5 (previously programmed with \$1.00 as the preset price) to the new price of \$0.75 :

Mode Lock to SET,

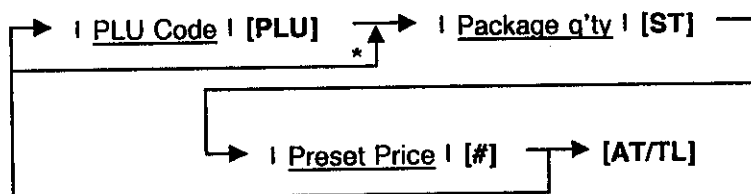
Enter 5, depress [PLU].

Enter 75, depress [#].

Depress [AT/TL] to end this program.

## PACKAGE Q'TY CHANGING

When changing the Package q'ty, enter the package q'ty and press the [ST] key. This change is possible only in SPLIT PLICE PLU.



Repeatable for another PLU.

**NOTE :** The Package Q'ty is the OPEN PLU cannot be Changed.

ex.) To change the package Q'ty of PLU No. 5 form 3 to 2.

Mode Lock to SET,

Enter 5, depress [PLU].

Enter 2, depress [ST].

Enter 75, depress [#].

Depress [AT/TL] to end this program.

Thank you  
Call again

05-11-89  
23001

#-0.0  
005.04  
3\*  
\*0.75 @  
0010  
10-59

05-11-89  
23001

#-0.0  
005.04  
2\*  
\*0.75 @  
0011  
10-59

## % + AND %- PRESET RATE SETTING

A preset rate may be set on each of the [%+] and [%-] key, one independent rate for each key. Once a rate is preset, the % key only will be depressed without a prior rate entry to activate the preset rate. If a rate is entered prior to the depression of the key, the entered rate (manual rate) will be activated instead.

### CONDITION

Any time outside a sale

### OPERATION

Mode Lock : SET

Preset % Rate | [%+] (For Percent Charge Preset Rate)

(0.001 to 99.999(%)) ; use the [.] key if a decimal portion is contained.)

Preset % Rate | [%-] (For Percent Discount Preset Rate)

ex.) To set 10% on [%+] Key :

Mode Lock to SET, enter 10, depress [%+].

ex.) To set 5% on [%-] Key :

Mode Lock to SET, enter 5, depress [%-].

Thank you  
Call again

05-11-89  
23001

#-0.0

0 10                      %+

0021

11-15

#-0.0

5                              %-

0022

11-15

To reset the rate once set :

Mode Lock : SET,

Enter 0, depress the required % key.

(Then the % key will always require a manual rate entry in sales entries.)

## FOREIGN CURRENCY EXCHANGE RATE SETTING

In this program, the rate of each foreign currencies (corresponding to the [CUR 1] to [CUR 4] keys) will be set. By setting a rate on each Foreign Currency Key, reading the sale total and tendering in the foreign currency value will be possible for sale finalization.

**CONDITION** Any time outside a sale.

**OPERATION** Mode Lock : SET

| Exchange Rate for Foreign Currency 1 | → [CUR 1]

0.000001 to 9999.999999

(Use the [ . ] key if decimal portion is contained in the rate.)

⋮

| Exchange Rate for Foreign Currency 4 | → [CUR 4]

As for how to calculate the Exchange Rate, see the description below.

### Foreign Currency Exchange Rate Calculation

1. The rate must be calculated in the subsidiary currency unit values for both the domestic and the foreign currencies. (In case of calculating the rate from the domestic to a foreign currency with the same zero-suppress form, such as from U.S. \$ to French Franc, it will be no problem even if it is calculated in the main currency of \$ and Franc. However, in case of exchanging from a domestic currency such as \$ or Franc to Japanese yen or Italian Lira, or vice versa, this rule must be obeyed; otherwise a wrong rate will result.)
2. Calculate the required foreign currency value equivalent to the domestic currency value "1". Then the obtained value is the Exchange Rate value to be entered in the setting operation stated above.

If the domestic currency is US \$ :

1¢ = xxxx.xxxxxx centimes (French Franc)  
 = xxxx.xxxxxx phennings (Deutsche mark)  
 = xxxx.xxxxxx yen (Japanese yen)

etc.

\_\_\_\_\_

Enter this value as the foreign currency rate.

ex.) To set foreign currency rate:

Domestic Currency ..... US \$  
 Assigning [CUR 1] ..... French Franc

Conditions given for Domestic Currency and Foreign Currency  
 (The rates here are merely examples, and may be different from  
 the actual rates currently in effect.)

(DOMESTIC)	(CU 1)
U.S. dollar	French Franc
\$1.00	= Fr 5.3729
1 cent	= 5.3729 centimes

KEY OPERATION for setting the rates above.

Mode Lock to SET.

5 [ . ] 3729 [CUR 1] (for French Franc)

### Resetting a Foreign Currency Rate Once Set :

Enter "0" in place of the Exchange Rate for the Foreign Currency in the setting operation. Then the rate for that foreign currency will be reset. The Foreign Currency Key of the rate thus reset cannot be used in sales entries.

Thank you  
Call again

05-11-89  
23001

#-00  
1★

5  
3729  
0032  
11-23

#-00  
1★

0  
0033  
11-23

# 11. VERIFICATION OF PROGRAMMED DATA

The programmed data entered in the previous "SET" mode operations may be read for the verification purpose.

**CONDITION**

Any time outside a sale.

**OPERATION**

Mode Lock : X

Follow the operation for each reading below:

(READ CONTENTS)	(KEY OPERATION)	(SAMPLE PAGE)
DEPARTMENT PRESET PRICE READ ..	1 [ST] .....	80
DEPARTMENT STATUS AND LC READ .	2 [ST] .....	80
PLU TABLE READ .....	3 [ST] .....	81
OTHER PROGRAM DATA READ .....	4 [ST] .....	81
USER SYSTEM OPTION READ .....	5 [ST] .....	82
DEPARTMENT GROSS PROFIT RATE READ .....	6 [ST] .....	82
TAX CALCULATION TEST .....	! <u>Entry any amount</u> ! [TXBL TL] (or [TX1/M]) .....	83

DEPARTMENT PRESET PRICE READ  
(Mode Lock : X, 1 [ST])

Thank you  
Call again

05-11-89  
23001

Department Code

X

01 @  
02 \*250 @  
03 @  
04 @  
05 @  
06 @  
07 @  
08 @  
09 @  
10 @  
11 @  
12 @

Preset Price  
(Blank : Open Dept)

0036  
11-28

DEPARTMENT STATUS AND LC READ  
(Mode Lock : X, 2 [ST])

Thank you  
Call again

05-11-89  
23001

Department Code

Single Item and/or  
Other Income Status

1: Single Item  
4: Other Income  
5: Single Item &  
Other Income

X

01 03 73  
01  
02 06 94  
01  
03 04 56  
01  
04 02 00  
02  
05 01 00  
02  
06 00 00 2  
03  
07 10 00  
04  
08 11 00  
09 00 00 -  
10 10 00 -  
11 40 00  
12 50 00  
0037  
11-28

Tax Status

0: Non-taxable  
1: Taxable 1  
2: Taxable 2  
3: Taxable 1 & 2  
4: Taxable 3  
5: Taxable 1 & 3  
6: Taxable 2 & 3  
7: Taxable 1 & 2 & 3

Food Stamp Symbol

Negative Status Symbol

PLU TABLE READ  
(Mode Lock : X, 3 [ST])

Thank you  
Call again

05-11-89  
23001

PLU Code → X  
00504 ← Linked Dept Code

Package Q'ty → 2\*  
(Split PLU Type)

\*0.75 @ Preset Price  
(Blank : Open PLU)

01002  
7\*

\*2.00 @

01101  
\*3.00 @

0038

11-29

OTHER PROGRAM DATA READ  
(Mode Lock : X, 4 [ST])

Thank you  
Call again

05-11-89  
23001

X Listing Capacity  
CA : [AT/TL]  
CK : [CHECK TEND]  
CH : [Chg]  
MS : [MISC]  
CP : [CPN]  
FS : [FSTL TEND]

945  
958  
778  
342  
358  
252  
85

10 %+ All Depts Common LC  
5 %- Percent Charge  
Press Rate

1\* Percent Discount  
Preset Rate

5  
3729  
0039

Foreign Currency 1-  
Exchange Rate

11-29

USER SYSTEM OPTION READ  
(Mode Lock : X, 5 [ST])

Ask your TEC representative for information of the User System Option selections for your store, if necessary.

Thank you  
Call again

05-11-89  
23001

X

01	2
02	0
03	0
04	0
05	0
06	234
07	167
08	23
09	235
10	0
11	0
12	0
13	0

0041  
11-37

DEPARTMENT GROSS PROFIT  
RATE READ  
(Mode Lock : X, 6 [ST])

Thank you  
Call again

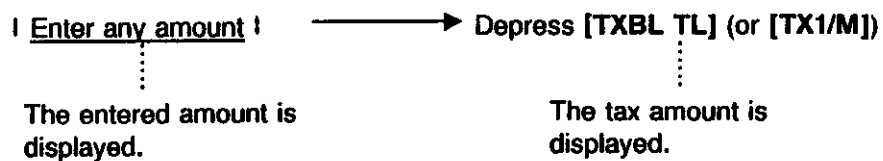
05-11-89  
23001

Department Code

X

01	10	%
03	20	%
0040		
11-37		

Gross Profit Rate

**TAX CALCULATION TEST (Mode Lock : X)**

## 12. PAPER ROLL REPLACEMENT AND OTHER MAINTENANCE OPERATIONS

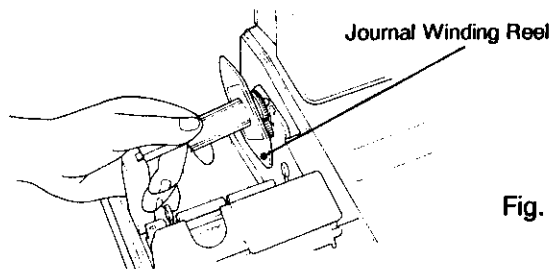


Fig. 1

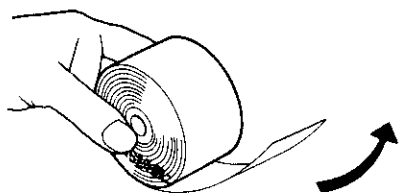


Fig. 2

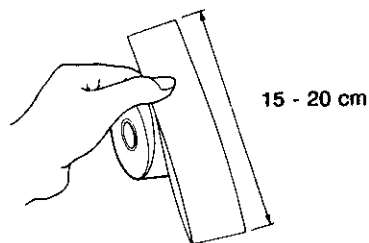


Fig. 3

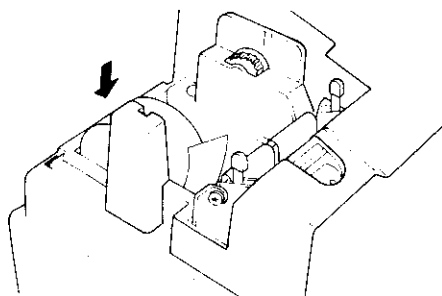


Fig. 4

### INSTALLING THE RECEIPT PAPER

1. Turn the Mode Lock to the "REG" position.
2. Remove the Paper Cover, and remove the Journal Winding Reel. (Fig. 1)
3. Hold a new paper in the direction as shown in Fig. 2 so that the paper end will be fed from the bottom.
4. Fold the paper end firmly as shown in Fig. 3 to ease the insertion.
5. Place the paper roll in the outer-side holder of the two roll holders. (Fig. 4)
6. Insert the paper end into the Receipt Inlet, feed the paper in while pressing down the [RF] key. (Fig. 5)
7. When all the folded portion comes out, tear off the unnecessary part with attached cutting edge. (Fig. 6)
8. Go on to INSTALLING THE JOURNAL PAPER steps if necessary, or go on to Step 9 below if not.
9. Attach the Paper Cover.
10. Depress the [NS] key to issue a receipt to check if the paper has properly been set.

Fig. 5

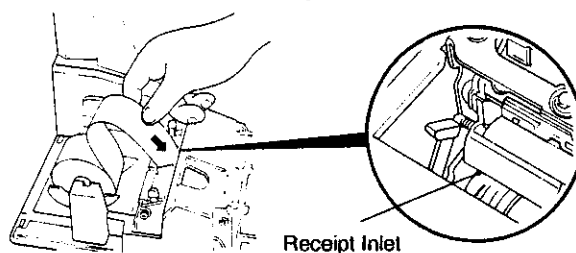
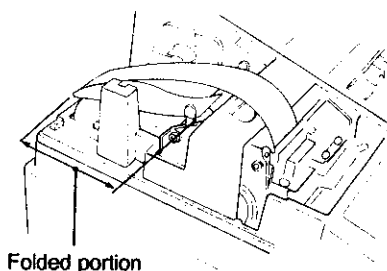
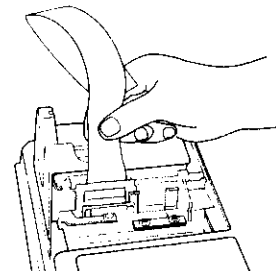


Fig. 6



Folded portion



Cut the paper with the edge.

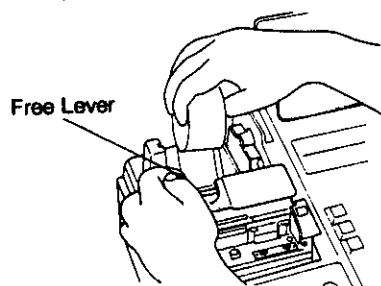


Fig. 7

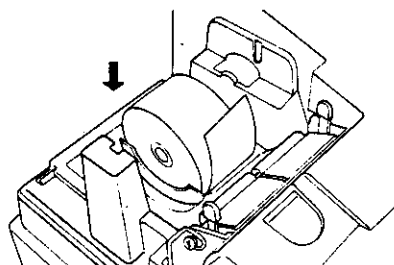


Fig. 8

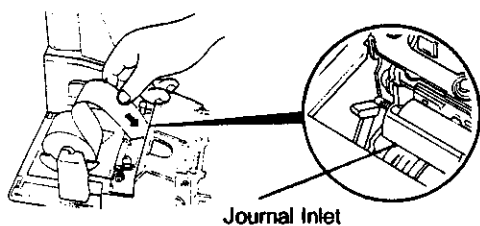


Fig. 9

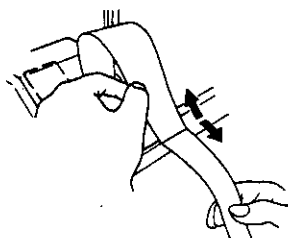


Fig. 10

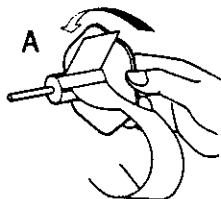


Fig. 11

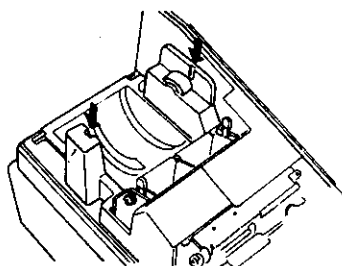


Fig. 12

## REMOVING THE RECEIPT PAPER

1. Remove the Paper Cover.
2. Press the Free Lever down and pull the old paper core upward to remove the remaining paper end. (Fig. 7)

## INSTALLING THE JOURNAL PAPER

1. Turn the Mode Lock to the "REG" position.
2. Remove the Paper Cover by pulling it upward, and remove the Journal Winding Reel. (Fig. 1)
3. Follow Steps 3 and 4 of INSTALLING THE RECEIPT PAPER on the previous page.
4. Place the paper roll in the inner-side roll holder of the two holders. (Fig. 8)
5. Insert the paper end into the Journal Inlet, feed the paper in while pressing down the [JF] key. (Fig. 9)
6. When the paper comes out for a enough length, open the folded end. (Fig. 10)
7. Wind the paper end on the Journal Winding Reel two or three times as shown in Fig. 11.
8. Set the Journal Winding Reel to the Reel Holder. (Fig. 12)
9. Attach the paper cover.

## REMOVING THE JOURNAL PAPER

1. Remove the Paper Cover.
2. Press the [JF] key to wind up enough portion of the journal paper, and then tear off the paper, holding the Journal Winding Reel.
3. The wound-up portion of the paper can easily be removed from the Reel by pulling it side way. (Fig. 13)
4. If enough paper remains on the roll, follow Steps 6 through 9 above; if paper is running out, follow Steps 1 through 9 above.

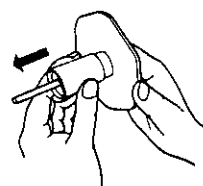


Fig. 13

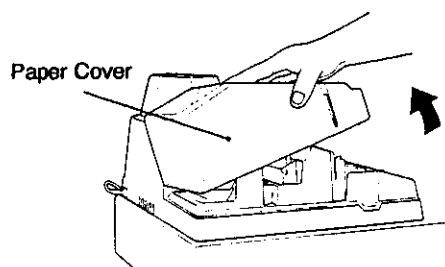


Fig. 1

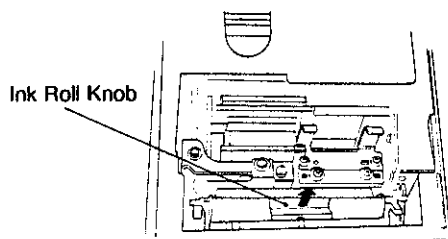


Fig. 2

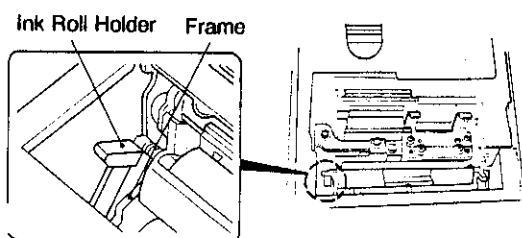


Fig. 3

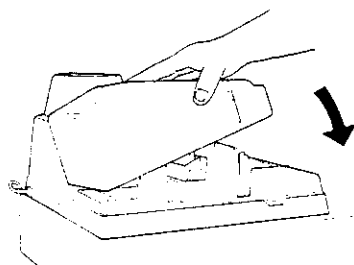


Fig. 4

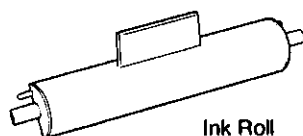


Fig. 5

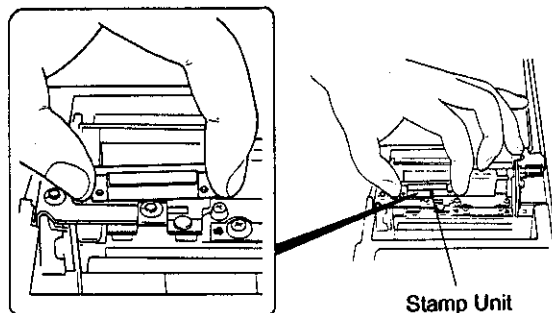


Fig. 6

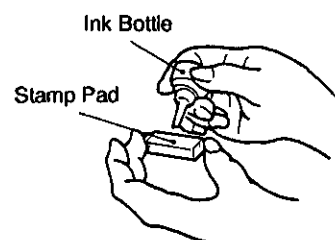


Fig. 7

## REPLACING THE INK ROLL

When the receipt and journal print becomes too light to read, replace the Ink Roll in the following manner.

1. Turn the Mode Lock to the "OFF" position.
  2. Remove the Paper Cover. (Fig. 1)
  3. Hold the Ink Roll Knob and pull it upward. The Ink Roll will be removed. (Fig. 2)
  4. Insert a new Ink Roll into the space between the Ink Roll Holder and the Frame. (Fig. 3)
  5. When replacement is completed, attach the Paper Cover (Fig. 4) and turn the Mode Lock to the "REG" position.
- \* The Ink Roll is a consumable product and a genuine part supplied by TEC. Ask your TEC representative for an additional order. (Fig. 5)

## REPLENISHING INK TO THE STORE MESSAGE STAMP

When the store message is printed too lightly, replenish ink in the following manner.

1. Turn the Mode Lock to the "OFF" position.
2. Open the Paper Cover. (Fig. 1)
3. Hold the both sides of the stamp unit with your fingers and remove it by pulling it upward. (Fig. 6)
4. Apply ink to the replenishment pad at the back of the stamp unit. The amount of refilling should be adjusted according to the density of the printed message. (The supplied ink bottle contains 5cc of ink.) (Fig. 7)
5. When replenishing of ink is completed, attach the Paper Cover (Fig. 4) and turn the Mode Lock to the "REG" position.

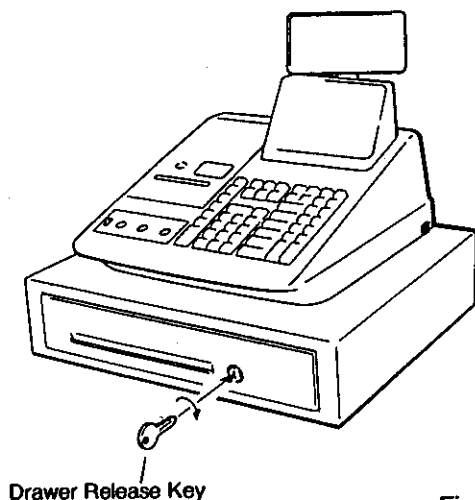


Fig. 1

## MANUAL DRAWER RELEASING

The drawer opens automatically when a registration is performed. In the event of a power failure or other troubles, the drawer can be opened manually in the following manner.

1. Insert the Drawer Release Key into the Drawer Release Lock and turn the key clockwise. The drawer will now open. (Fig. 1)
2. The Drawer Release Key can be taken out by returning it to the original position.
3. When the drawer is closed, it is automatically locked and will not open without the Drawer Release Key or normal registering operation.

## REMOVING THE DRAWER

1. Pull the drawer out, and when it stops by the stopper, lift the drawer up and pull it again (Fig. 2). When it stops again by the roller fixed in the drawer case, lift it and pull it again (Fig. 3).
2. When returning to drawer, follow the reverse procedure to removing.

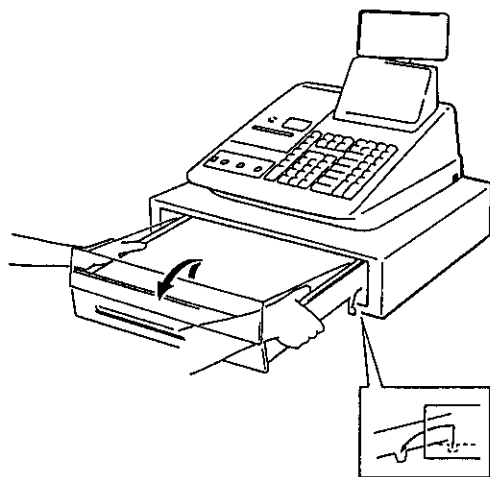


Fig. 2

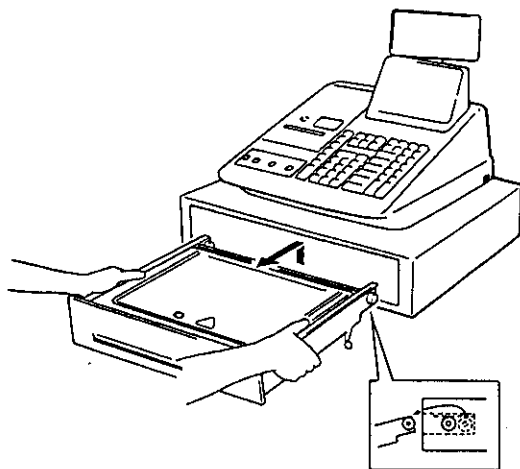


Fig. 3

## CDC (Cash Drawer Cover) LOCK

### Locking (Fig. 4)

1. Push the Cash Drawer Cover to the drawer-end.
2. Press the cover lightly, insert the key into the key-hole on the cover, and turn it to lock.

### Opening

Release the lock by the key, and lift the front end of the cover.

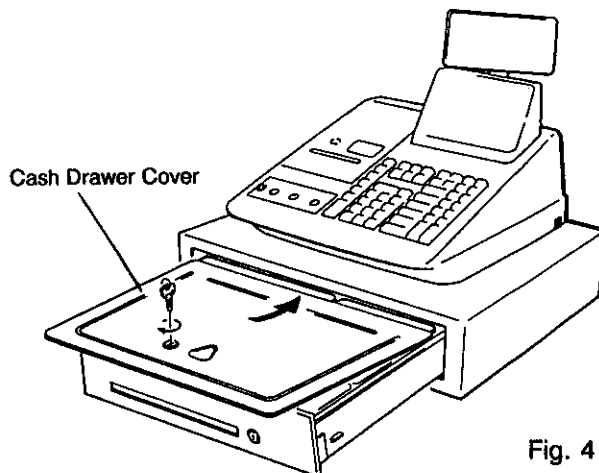


Fig. 4

## 13. SPECIFICATIONS

Size .....	460mm (width) x 400mm (depth) x 333mm (height) (including rubber feet) (or 416mm (height) when Customer's Display is popped up)
Weight .....	16kg
Power Required .....	AC 100V, 110V, 117V, 220V, 240V; 50/60Hz
Power Consumed .....	0.33A (117V)
Size of Receipt and Journal .....	38mm (width) x 70mm (diameter)
Ambient Temperature .....	0°C to 40°C
Relative Humidity .....	10% to 90%







***TEC***  
TOKYO ELECTRIC CO., LTD.

**E** PRINTED IN JAPAN  
EO1-11004 89051501