TEC

TEC Electronic Cash Register

MA-55 (US Version)

Owner's Manual

TOKYO ELECTRIC CO., LTD.

1. Introduction

Thank you for choosing the TEC electronic cash register MA-55 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:

> For supplies, service or assistance call:

Please have the following information available when you call:

Product Name: TEC Electronic Cash Register
Model: MA-55
Serial Number: _____
Place Purchased: _____
Date of Purchase: _____

If for any reason this product is to be returned to the store where purchased, it must be packed in the original carton.

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

2. Unpacking
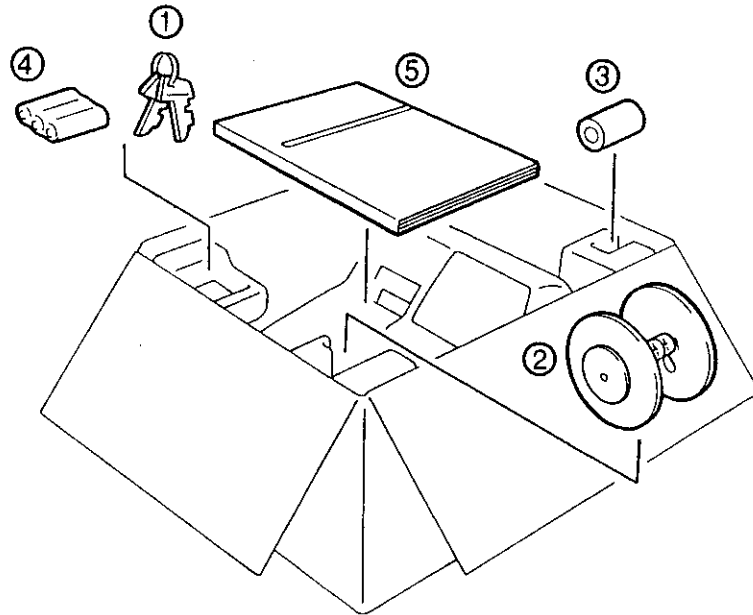
① Control Keys (**M** Key; 2 pcs.)
② Journal Take-up Reel (1 pc.)
③ Paper Roll 57mm x ø30mm (1 pcs.)

④ Dry Batteries (SUM-3 1.5V; 3 pcs.)
⑤ Owner's Manual (1 pc.)

3. Precautions

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

Remarks on the Location

Do not place it where unusual temperature changes are expected or where it will be subject to direct sunlight.
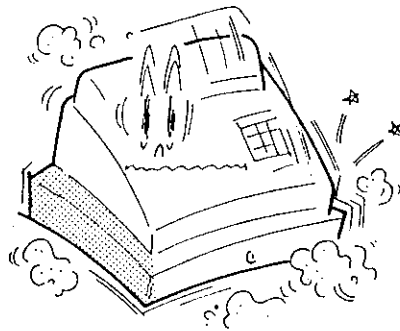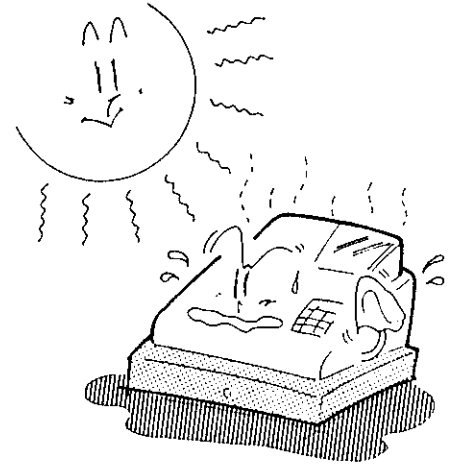
Place it on a flat and level surface with little dust, humidity, vibration, etc.

Keep it away from water sources.
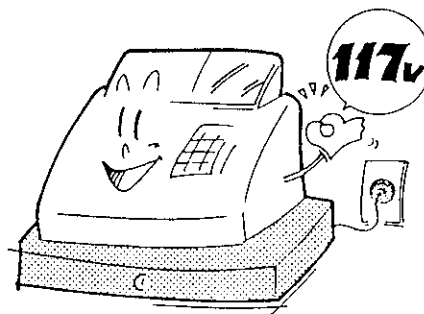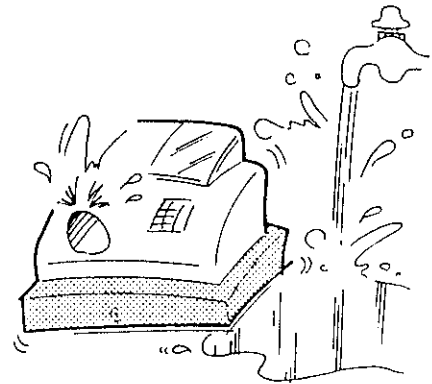
Be certain that the power voltage in your area matches that required for the machine. (The rated voltage is 117V ±10% AC.)

> **The socket-outlet shall be installed near the equipment and shall be easily accessible.**

Remarks on Operating the ECR

The keys on the keyboard function with a light touch. Avoid pressing the keys too hard.
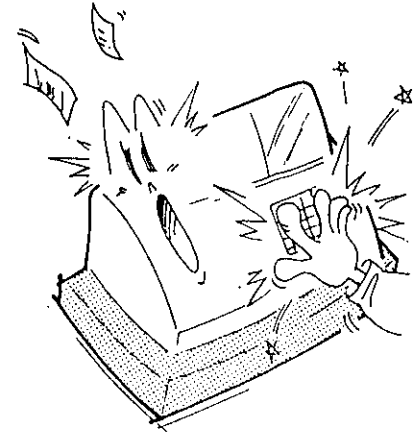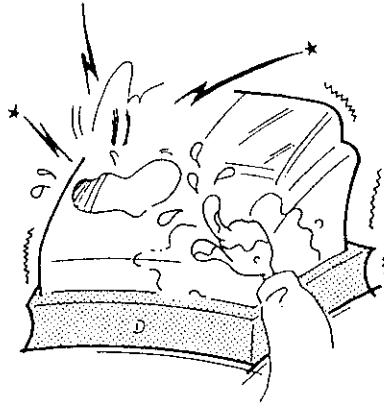
Do no handle the machine with wet hands, since this may cause electrical malfunctions and corrosion of parts.

Do not apply thinner, benzine, or other volatile materials to the cabinet or other plastic parts. Such liquids will cause discoloration or deterioration. If dirty, wipe off with a piece of cloth soaked in a neutral detergent and wrung out thoroughly.

Turn the Control Lock to OFF position when all operations are completed after business hours.

Never try to repair the ECR. In the event of a problem, please call your authorized TEC dealer, reseller or local TEC representative.
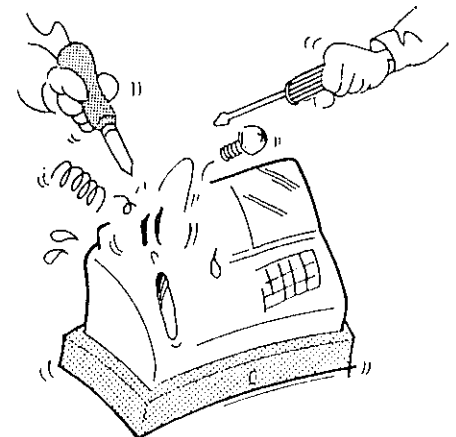
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4. Table of Contents

5. Outline of Preparation Procedure Before Operating the ECR

This chapter shows the outline of set-up procedure of the ECR before actually starting the ECR operation.

Remove the cash register from the carton, referring to Chapter "2. Unpacking" on page 2. And take out all the parts and accessories.
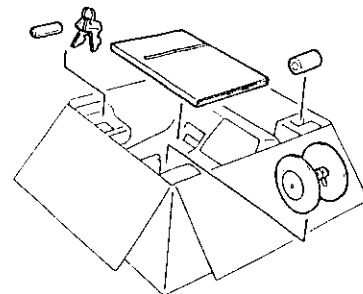
Remove the tapes and seals that are holding parts or protecting the register surfaces.

Plug the power cord of the register into a wall outlet. Make sure that the outlet voltage matches that of the power required for the register.

NOTE: *Before the batteries are inserted, be sure to insert the power plug.*
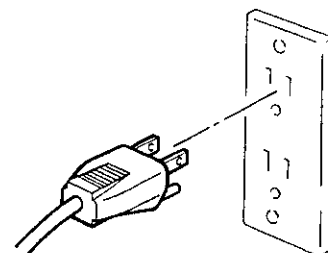
Detach the Paper Cover and the Battery Cover, then insert the batteries (3 pieces).

WARNING: *Be certain to insert the batteries enclosed in the package. If they are not insert and the power is turned OFF (including a power failure occurrence), the sales data and the programmed data will be cleared.*
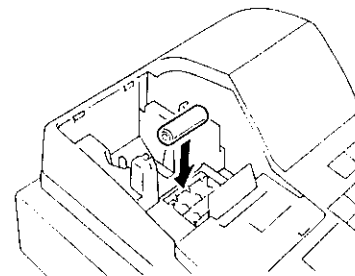
Insert the Control Key (**M** Key) into the Control Lock.

Turn the Control Lock to the **REG1** position.

- 6 -
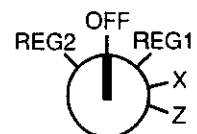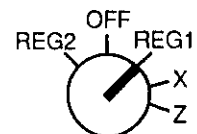
⑦ Install the Receipt or Journal roll (referring to Chapter "**10. Installing the Paper Roll**").

⑧ Set the time and date correctly, referring to "**Setting the Time and Date**" in Chapter **11**.

⑨ Set the tax tables, referring to "**Tax Table Setting**" in Chapter **11**.

⑩ Perform other programming operations, such as programming of Departments, according to the requirement of the market and your store (refer to Chapter **11** and thereafter).
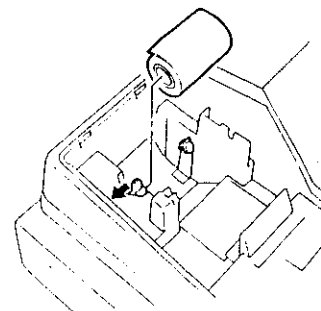
6. Appearance and Nomenclature

Printer Cover

Journal Window
or
Receipt Outlet

Display

Control Lock

Power Cord

Keyboard

Drawer
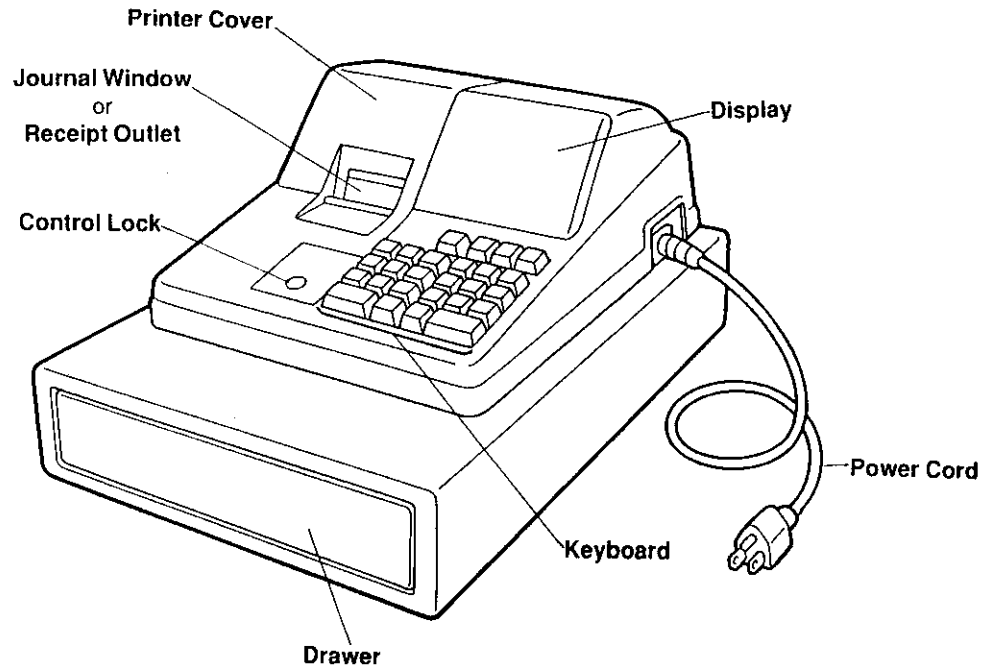
Printer Cover

The cover for the Receipt or Journal paper holder and the printer.

Receipt Outlet or **Journal Window**

The receipt for the finalized sale is issued with the Receipt-format option.
Or, the operator can see which items have already been entered through this window with the Journal-format option.

Display

Used by the operator to confirm the entry contents and the status of the register. (page 10)

Control Lock

It selects the type of register operations. (page 9)

Keyboard

Used to enter sale items. (page 11)

Drawer

Cash and other media are kept here. It automatically opens on finalizing a sale.

7. Control Lock and Control Key

Control Lock
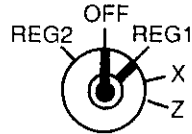
OFF ....Stops register operations and extinguishes the display.

REG1 ...... Used to register normal sales with receipts (or jounals) printed.

REG2 ...... Used to register normal sales without any receipt (or journal) printed.

X .... Used to read sales totals processed in the register report memory (X report). Received-on-Account and Paid Out operations are also performed in this position.

Z ....Used to read and reset sales totals in the register report memory (Z report). Also used to program preset data and read those data.

Control Key
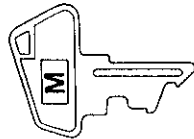
Two keys of the same type are packed in the carton. It is used to turn the Control Lock to a required position. The key may be inserted or pulled out in the **OFF** or **REG1** position.

8. Display

Amount

Negative Mark   or   Repeat Count

Department Code, Message Descriptor
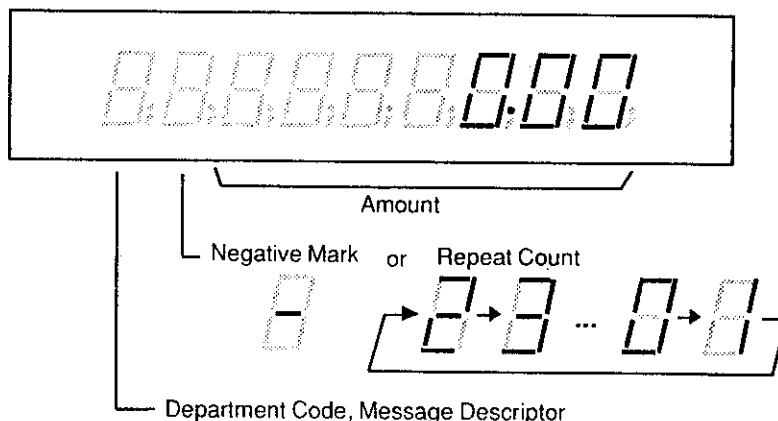
Description

Amount ···················· Displays the numeric data, such as amount, quantity, etc. Displays the current time or date when the **[X]** key is depressed in the REG1 or REG2 mode.

Negative Mark ············ When a Void, Percent Discount, or Negative Department item has been entered, the Negative Mark is displayed. The mark is also displayed when the subtotal or sale total is obtained and the amount is negative.

Repeat Count ············ Displays the repeat count of the same item being entered. The count display shows up from the second entry on, and only the last digit will be displayed even if the count exceeds nine.

Department Code ········ Displays the Department Code (1 to 4) when the corresponding Department Key is depressed for any sale item entry.

Message Descriptor:

    (Subtotal) Indicates that the displayed amount is the current subtotal of the sale.

    (Total) Indicates that the sale is finalized and the displayed amount is the sale total.

    (Change) Indicates that the sale is finalized with an amount tendered and the displayed amount is the change due.

    (Error) Indicates that the last operation has caused an error.

9. Keyboard

The following shows the key layout on the MA-55 keyboard:

C		
	X	VD	FEED

7	8	9
4	5	6
1	2	3
0	00	

4	TX1/M / PO	%
3	TX2/M / R/A	#/NS
2	ST	Chg
1	AT/TL	
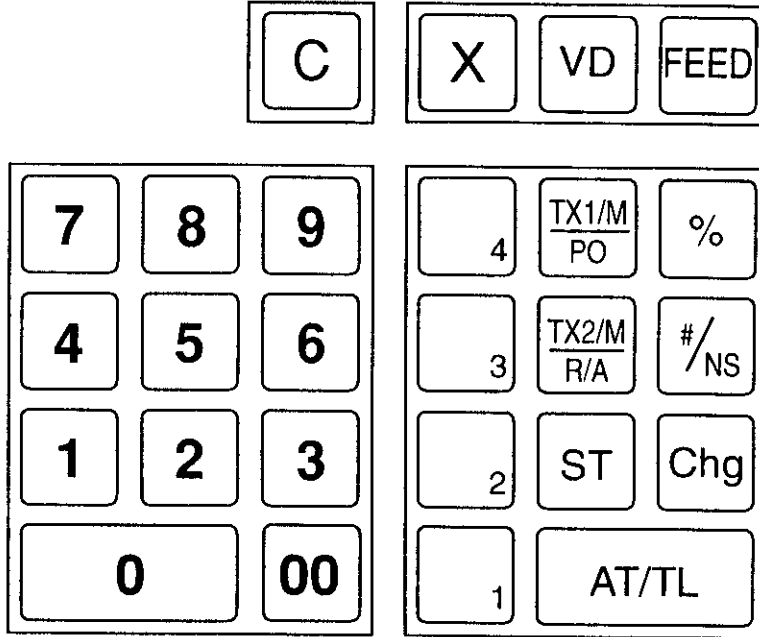
Functions of Each Key

KEY	FUNCTION
C	**Clear Key:** Used to clear a wrong entry or operation error.
X	**Multiplication / Date & Time Display Key:** Used to enter sale items by multiplication inside a sale. Also used to display the time or date outside a sale.
VD	**Void Key:** Used to delete items already entered in the current sale.
FEED	**Feed Key:** Used to feed the receipt or journal paper.
7 8 9 4 5 6 1 2 3 0 00	**Numeric Keys:** Used to enter numeric data, such as amounts, quantities, and code numbers. The **[00]** key functions the same as depressing the **[0]** key twice consecutively.

KEY	FUNCTION
1 to **4**	**Department Keys 1 to 4:** Used to enter sale items and process the amount into appropriate departments.
TX1/M PO	**Tax 1 Modifier / Paid Out Key (X Mode):** Used inside a sale to reverse the Tax 1 status of departments from taxable to non-taxable, or vice versa. When outside a sale, it is used to record amounts paid out of the drawer without relating to a sale.
TX2/M R/A	**Tax 2 Modifier / Received-on-Account Key (X Mode):** Used inside a sale to reverse the Tax 2 status of departments from taxable to non-taxable, or vice versa. When outside a sale, it is used to record received-on-account payment amounts.
%	**Percent Charge or Discount Key:** Used to add or subtract a percent rate, preset or manually entered, to or from the sale or an individual sale item. Whether the key is used as Percent Charge or Percent Discount can be programmed.
#/NS	**Non-add Number Print / No-sale Key:** When depressed with a prior number entry, it functions as Non-add Number Print Key. When simply depressed without a numeric entry outside a sale, it functions as No-sale Key.
ST	**Subtotal Key:** Used to obtain a subtotal (sale total amount up to the moment).
Chg	**Charge Key:** Used to finalize a sale as charge (non-cash media sales, such as check, house charge, credit cards, etc. defined by the store) by a simple depression without any numeric entry (Total Function only).
AT/TL	**Cash Amount Tender / Total Key:** Used to finalize a sale as cash by depressing with a prior tendered amount entry (Tender Function) or by a simple depression without any numeric entry (Total Function).

10. Installing the Paper Roll

CONTROL KEY

OFF
REG2 | REG1
X
Z
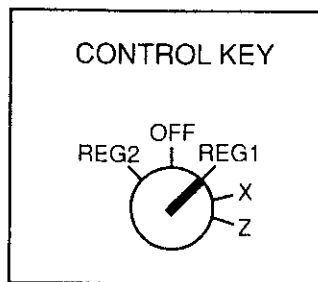
① Turn the Control Lock to the **REG1** position using a Control Key.
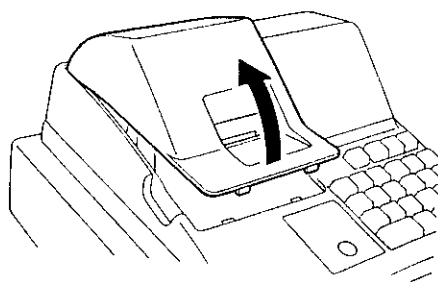
② Remove the Paper Cover.
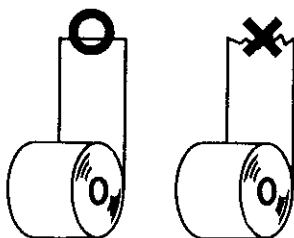
③ Cut the paper end to make it sharp.
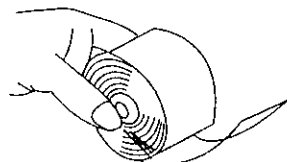
④ Hold the paper roll so that the paper end will be fed from the bottom.
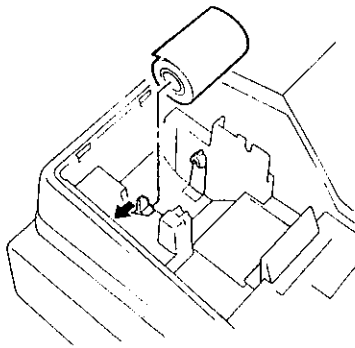
⑤ Place the paper roll in the paper pocket.
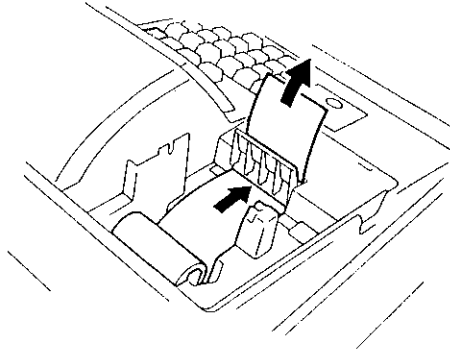
⑥ Insert the paper end into the Paper Inlet located on the rear side of the printer, and hold down the [FEED] key on the keyboard until the paper end comes out of the outlet.
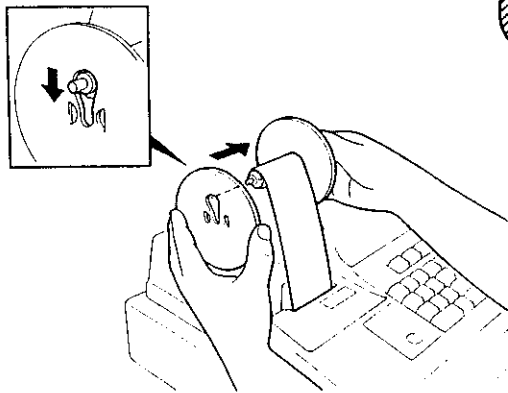
⑦ If the printer is used for journal, fold the top end of the paper and insert the folded end into the slit of the Take-up Reel Shaft. Then wind the paper two or three times, set the reel to the holder, and hold down the [FEED] key for a while to tense the paper.

If the printer is used for receipts, do not wind the paper end around the Journal Take-up Reel.

If the printer is used for journal, simply attach the Paper Cover. The Receipt Outlet is used as Journal Window.
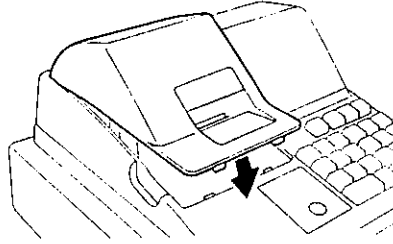
If the printer is used for receipts, attach the Paper Cover with the paper end coming out of the Receipt Outlet located on the Paper Cover.
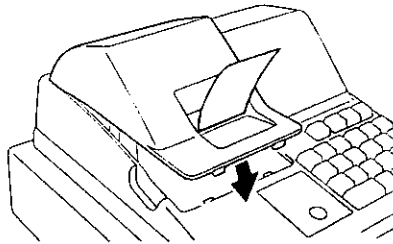
11. Programming

The time and date should be adjusted and such data as status of each department, percent rate, etc. should be programmed before starting sale entries. Printing occurs as programming is proceeded.

● The programmed data will be retained by dry batteries even if the power of the machine is turned OFF or a power failure occurs.

● Turn the Control Lock to the **Z** position before starting any programming operation (Time Setting and Date Setting can be operated in either **X** or **Z** position).

OFF
REG2 REG1
X
Z

● Key indications in the operation patterns in this manual:
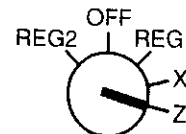
☐ ····· Entry through a Numeric Key   ■ ····· Function Key depression

Time Setting   (Control Lock: **X** or **Z**)

The 24-hour system (military time) is used for time setting.

☐☐ ☐☐ → **X**   (No printing occurs. Indicates the set result in the display.)
Hour Minute
(00 to 23) (00 to 59)

Date Setting   (Control Lock: **X** or **Z**)

☐☐ ☐☐ ☐☐ → **X**   (No printing occurs. Indicates the set result in the display.)
Month Day Year
(01 to 12) (01 to 31) (93, 94, etc.)
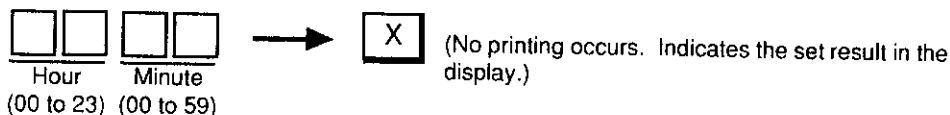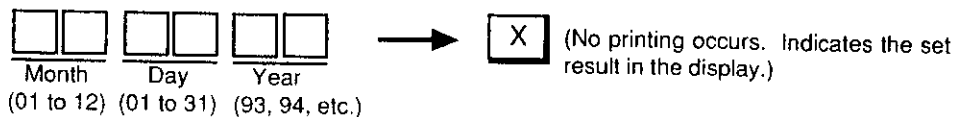
NOTE: The date entry order above shows the initial set order. The entry order of Day-Month-Year or Year-Month-Day can be selected instead of Month-Day-Year by the Date Entry Order option to be described later.

Sample Programming Operations

To set the time to 1:05 pm and the date to August 5, 1993:

	Display	Value of seconds

1 3 0 5 **X** (Time Setting) $01-05$ 00

(**C** to clear the time display) 0.00

0 8 0 5 9 3 **X** (Date Setting) $08-05-93$
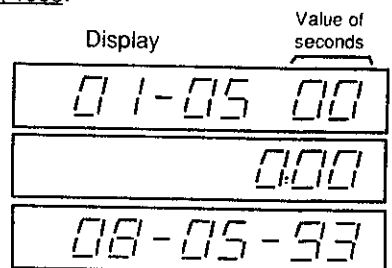
The following programming operations are performed in the common operation pattern as shown below. You may go through a specific programming operation or go through all the operations at one time.

Common Operation Pattern

Control Lock: **Z**

Only displays the set data (no print occurs).

Submode No.
(3 digits)

Entry of data to be set
(Number of digits varies according to each submode)

To continue to another Submode No.

ST
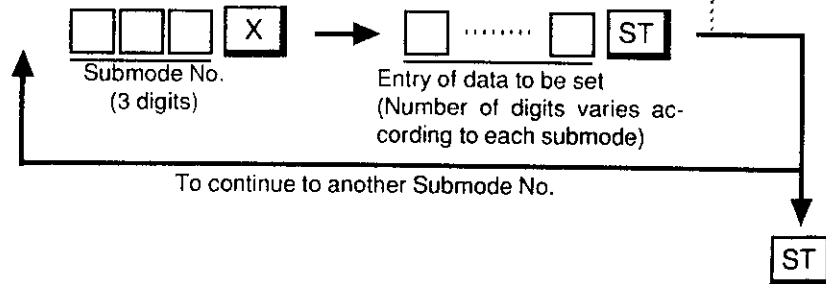
Prints the set data as well as preset data of all other Submode Nos.

Submode No. and Programming Operation

Submode No.	Programming Operation	Entry data to be set
001	Department 1 Preset Price	Max. 5 digits for each
002	Department 2 Preset Price	
003	Department 3 Preset Price	
004	Department 4 Preset Price	
005	Department HALC & System HALC	5 digits
006	Department Tax & Negative Status	4 digits
007	Department Single-item Status	4 digits
008	% Key Preset Rate	4 digits
009	% Calculation Fraction Rounding	2 digits
010	Tax Feature Selection	2 digits
011	% Key Type & Status, Amount Form & Amount Division Symbol	2 digits
012	System Option 1	2 digits for each
013	System Option 2	
014	System Option 3	

The following table shows the initial settings of the machine before changing the programming data. Select the programming operation whose data must be changed referring to the table.

Initial Settings

Submode No.	Programming Operation	Initial Setting
001 to 004	Department 1 to 4 Preset Price (one for each)	None (= open price)
005	Department 1 to 4 HALC (one for each)	None (= 7 digits)
	System HALC	None (= 8 digits)
006	Department Tax Status	Dept. 1: Tax 1 Taxable Dept. 2: Tax 1 Taxable Dept. 3: Non-taxable Dept. 4: Non-taxable
	Department Negative Status	Dept. 4: Negative Others: Positive
007	Department Single-item Status	All Depts.: Itemized
008	% Preset Rate	10.00%
009	% Calculation Fraction Process	Round Off
010	Tax Feature	Tax 1: Add-on Tax Tax 2: Add-on Tax
011	% Key Type, Its Tax Status	%- Key, Non-taxable
	Amount Form, Amount Division Symbol	0.00 (Point)
012	System Option 1 (Print/Non-print Option in sales) 　　Consecutive No. 　　Subtotal (automatic subtotal) 　　Current Time	Print Print Print
	Subtotal (manual [ST] key depression) 　　Taxable Total 1 　　Taxable Total 2	Non-print Non-print Non-print
013	System Option 2 　　Printer used for: 　　Consecutive No. resetting after Z Report 　　Time System for Display & Print	Receipt Non-resettable 12-hour system
	Date Entry Order	Month-Day-Year
014	System Option 3 　　Tender to finalize a sale as cash 　　[ST] Key before finalizing any sale	Not compulsory Not compulsory
	GST Feature (for CANADA)	Not applicable

Setting Department Preset Prices

A unit price of up to 5 digits can be preset on each Department Key.

Submode No.:
001 for Dept. 1
002 for Dept. 2
003 for Dept. 3
004 for Dept. 4

Preset Price
(1 to 99999; max. 5 digits)
When 0 (zero) is entered
here, the Department is set
as an open-price depart-
ment.
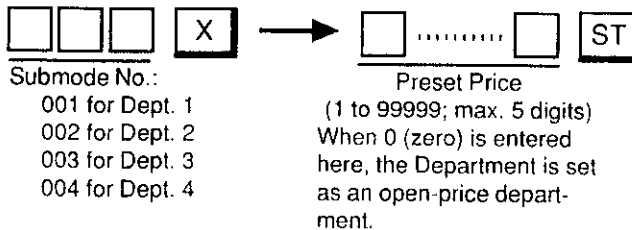
Display Example) $1.00 is set to Dept. 3:

```
003 00 100
```

Submode No.
(= Dept. No.)

Preset Price
now set
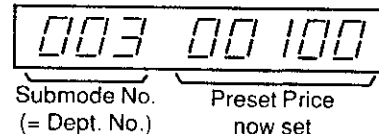
Setting Department HALC and System HALC

The HALC (High Amount Listing Capacity) is used to check excessively high
amounts entered by mistake. By setting HALCs, such mistakes will be prevented
at the earliest stage.

Dept.2   Dept.4
Dept.1 : Dept.3 : System

[0] [0] [5] [X]

Submode No.

HALC for each dept.
0 to 7 (indicating the
number of digits for
max. amount entry
allowed); 0 is the
same as 7.

HALC for Sale Finalization,
Manual Tax, Received-on-
Account, Paid Out.
0 to 8 (indicating the
number of digits for max.
amount allowed); 0 is the
same as 8.
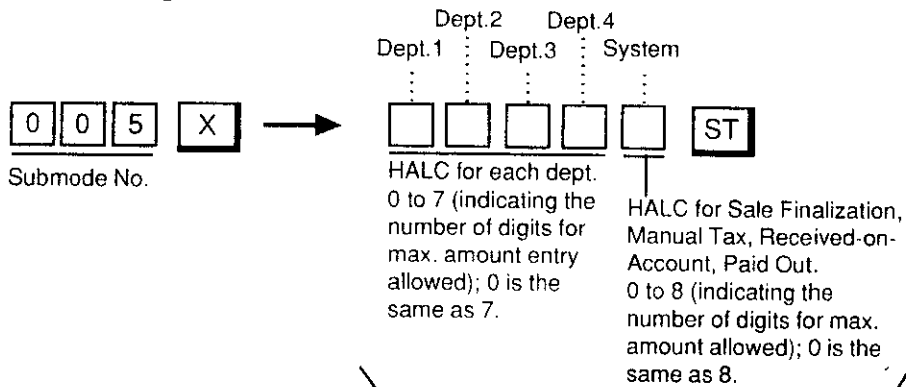
For example, if "3" is entered, it means 3 digits and
the high amount limit is 999 ($9.99).

Display Example)

```
005 45678
```

4 digits for Dept. 1
5 digits for Dept. 2
6 digits for Dept. 3
7 digits for Dept. 4
8 digits for System
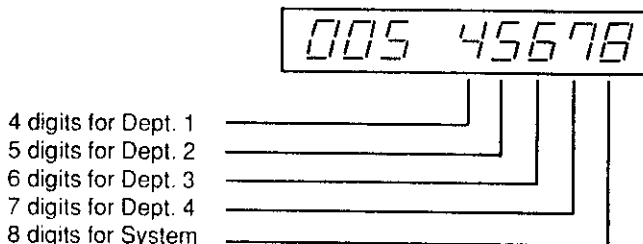
Department Tax Status & Negative Status

Each Department can be set to be taxable to Tax 1 and/or Tax 2, and to be a negative department. A negative department is used to enter returned merchandise.

```
Dept.2   Dept.4
Dept.1 : Dept.3 :
```

```
[0][0][6] [X] ──▶ [ ][ ][ ][ ] [ST]
Submode No.        Status Code 0 to 7
                   for each department:
```

0: Non-taxable, Positive
1: Tax 1 (or VAT1) Taxable, Positive
2: Tax 2 (or VAT2) Taxable, Positive
3: Tax 1 (or VAT1) & Tax 2 (or VAT2) Taxable, Positive
4: Non-taxable, Negative
5: Tax 1 (or VAT1) Taxable, Negative
6: Tax 2 (or VAT2) Taxable, Negative
7: Tax 1 (or VAT1) & Tax 2 (or VAT2) Taxable, Negative
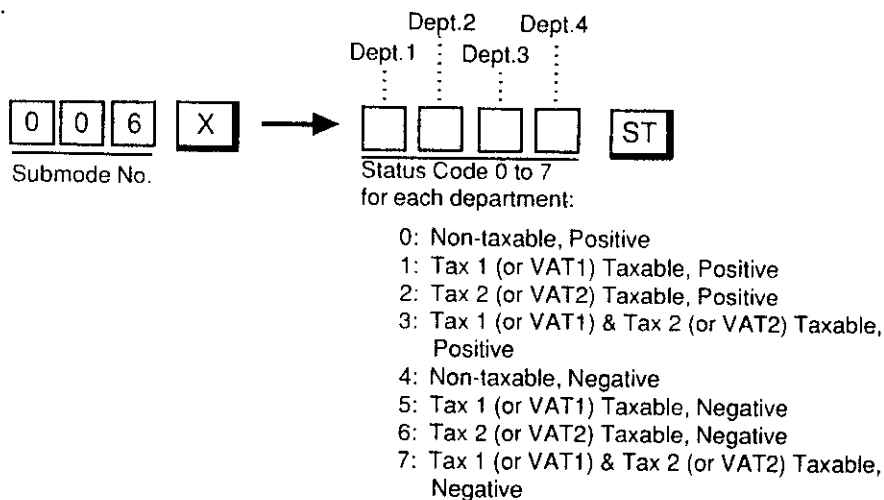
NOTE *When the GST Feature is selected by program option (Submode No. 014), "Tax 1" will be GST and "Tax 2" will be PST.*

Display Example)

```
006  1234
```

Dept. 1: Tax 1, Positive
Dept. 2: Tax 2, Positive
Dept. 3: Tax 1 & Tax 2, Positive
Dept. 4: Non-taxable, Negative
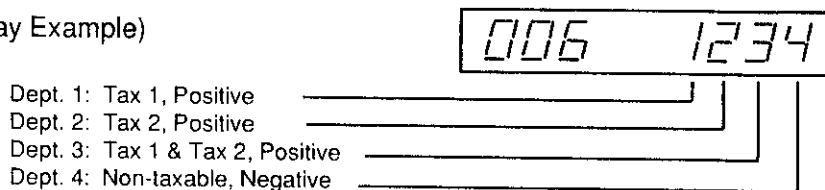
Department Itemized/Single-item Status

This operation selects the receipt-issue type status for each department.

When a department is set to be an "Itemized" department, a sale item entry through that Department Key will not immediately finalize the sale and will allow other item entries until a media key ([AT/TL] or [Chg]) is operated.

When a department is set to be a "Single-item" department, a sale item entry through that Department Key will immediately finalize the sale as cash and issue a receipt if it is operated outside a sale. However, when a Single-item department is operated during a sale, it functions the same as an Itemized department.

```
[0][0][7]  [X]  ──────►  [ ][ ][ ][ ]  [ST]
```
Submode No.   Status Code for
                           each department:
                             0: Itemized
                             1: Single-item

Dept.2   Dept.4
Dept.1 : Dept.3 :

Display Example)

```
  ⊓⊓⊓    ⊓⊓ ⊓⊓
```

Dept. 1: Itemized
Dept. 2: Itemized
Dept. 3: Single-item
Dept. 4: Itemized

% Preset Rate Setting

```
[0][0][8]  [X]  ──────►  [ ][ ][ ][ ]  [ST]
```
Submode No.   Preset Percent Rate
                           0001 (0.01%) to 9999 (99.99%);
                           always enter 4 digits.
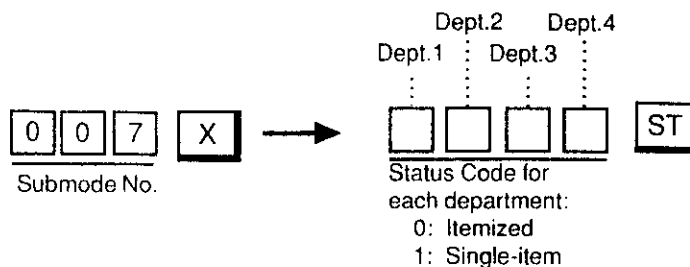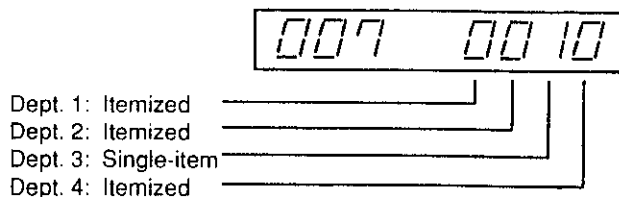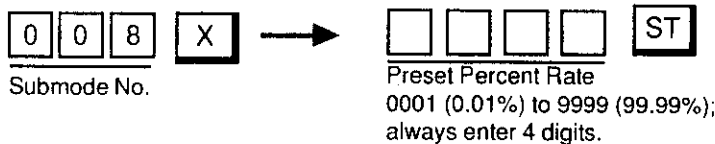
NOTE: *Whether the [%] key is used as Percent Discount Key or Percent Charge Key is determined in Submode 011.*

Display Example)

```
  ⊓⊓8    ⊓5⊓⊓
```
                           5% is set
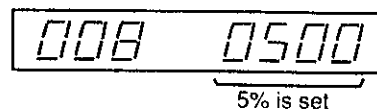
% Calculation Fraction Rounding Process Selection

```
[0][0][9]  [X]  ──────►  [ ][ ]  [ST]
```
Submode No.   Rounding Process
                           Code:
                             00: Round Down
                             50: Round Off
                             99: Round Up

Display Example)

```
  ⊓⊓9         ⊓⊓
```
                           Round Down
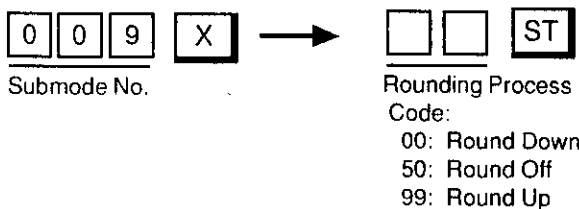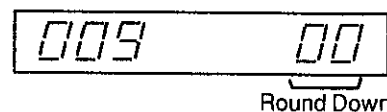
Tax Feature Selection

This operation selects the basic tax feature.

| 0 | 1 | 0 | X | → | | | ST |

Submode No.

Tax 1 Type
0, 1, or 2

Tax 2 Type
0, 1, or 2

0: Non-taxable
1: Add-on Tax
2: VAT

Display Example)

```
0 10        1 1
```

Tax 1:
Add-on Tax

Tax 2:
Add-on Tax
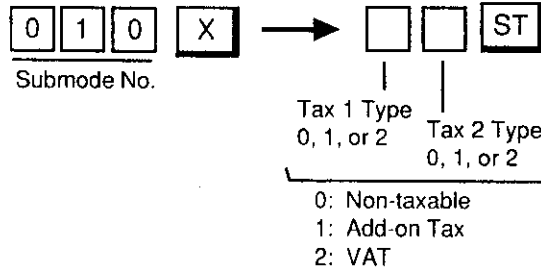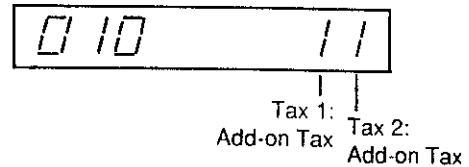
% Key Type & Tax Status, Amount Form Setting

This operation provides selection of whether the % key is used as %- or %+ key, sets the Tax Status of the % key, and determines the Amount Form for display and print.

| 0 | 1 | 1 | X | → | | | ST |

Submode No.
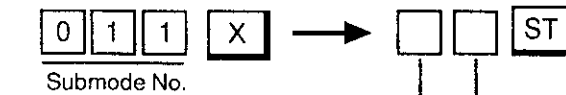
% Key Type and Status;
0 to 7
0: %-, Non-taxable
1: %-, Tax 1 (or VAT1) Taxable
2: %-, Tax 2 (or VAT2) Taxable
3: %-, Tax 1 (or VAT1) & Tax 2 (or VAT2) Taxable
4: %+, Non-taxable
5: %+, Tax 1 (or VAT1) Taxable
6: %+, Tax 2 (or VAT2) Taxable
7: %+, Tax 1 (or VAT1) & Tax 2 (or VAT2) Taxable

Amount Format, Division Symbol Selection;
0 to 7
0:    0 .
1:    0. 0
2:    0. 00
3:    0. 000
4:    0 ,
5:    0, 0
6:    0, 00
7:    0, 000

Display Example)

```
0 1 1        3 2
```

%-, Tax 1 & Tax 2 Taxable — └ 0.00

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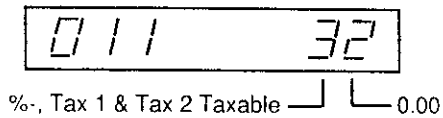
System Option 1 Setting

This setting is for print/non-print selections of some items on the sale receipts.

```
[0][1][2][X] ──▶ [ ][ ][ST]
```
Submode No.

Selection Code: 0 to 7

	Consecutive No.	Auto Subtotal	Current Time
0	Print	Print	Print
1	Non-print	Print	Print
2	Print	Non-print	Print
3	Non-print	Non-print	Print
4	Print	Print	Non-print
5	Non-print	Print	Non-print
6	Print	Non-print	Non-print
7	Non-print	Non-print	Non-print

Selection Code: 0 to 7

	Subtotal Line by [ST]	Taxable Total 1	Taxable Total 2
0	Non-print	Print	Print
1	Print	Print	Print
2	Non-print	Non-print	Print
3	Print	Non-print	Print
4	Non-print	Print	Non-print
5	Print	Print	Non-print
6	Non-print	Non-print	Non-print
7	Print	Non-print	Non-print

Display Example)

```
 0 12        00
```

Consecutive No. Print, Auto Subtotal Print, Current Time Print

Subtotal by [ST] Non-print, Taxable Total 1 Print, Taxable Total 2 Print

System Option 2 Setting

This setting is for selections of printer use, Consecutive No. resetting method, display & print time system, and date entry (setting, display, and print) order.

```
[0][1][3][X] ──▶ [ ][ ][ST]
```
Submode No.

Selection Code: 0 to 7

	Printer Used for	Consecutive No. after Z Report	Time System
0	Receipt	Non-reset	12-hour
1	Journal	Non-reset	12-hour
2	Receipt	Reset	12-hour
3	Journal	Reset	12-hour
4	Receipt	Non-reset	24-hour
5	Journal	Non-reset	24-hour
6	Receipt	Reset	24-hour
7	Journal	Reset	24-hour

Selection Code: 0 to 2

Date Entry (setting, display, and print) Order

0	Month-Day-Year
1	Day-Month-Year
2	Year-Month-Day

Display Example)

```
 0 13        20
```

Receipt, Reset, 12-hour

Month-Day-Year

- 23 -

System Option 3 Setting

This setting is for selections of Tender for finalizing a cash sale, **[ST]** Key depression before finalizing any sale, and GST Feature selection, and PST Calculation Method.

| 0 | 1 | 4 | X | → | | | ST |

Submode No.

Selection Code: 0 to 3

	Tender for Cash Sale	: [ST] Key before sale finalization
0 :	Not compulsory	Not compulsory
1 :	Compulsory	Not compulsory
2 :	Not compulsory	Compulsory
3 :	Compulsory	Compulsory

Selection Code: 0, 1, or 3

GST Feature

0 :	Non-GST (U.S. Add-on Tax System, or PST-only)
1 :	GST applied; PST Taxable Total Amount excludes GST
3 :	GST applied; PST Taxable Total Amount includes GST

Display Example)

$$\text{0 1 4} \qquad \text{0 0}$$

Tender Not compulsory, [ST] Not compulsory

Non-GST Feature

Program Receipt Sample Format (Submodes 001 to 014)

Submode No. ——

```
                    Z           ── Set Data

            001-00000           ── Mode Symbol
            002-00000
            003-00100
            004-00000
            005-45678
            006·· 1234
            007·· 0010
            008·· 0500
            009···· 00
            010···· 11
            011···· 32
            012···· 00
            013···· 20
            014···· 00
              02-20  *          ── "*" indicates "pm" when
       0006#08-05-93               the 12-hour system.
                                ── Current Time
                                ── Consecutive No., Date
```

Tax Table Setting

| 1 | 0 | 0 | X |

Submode No.

↓
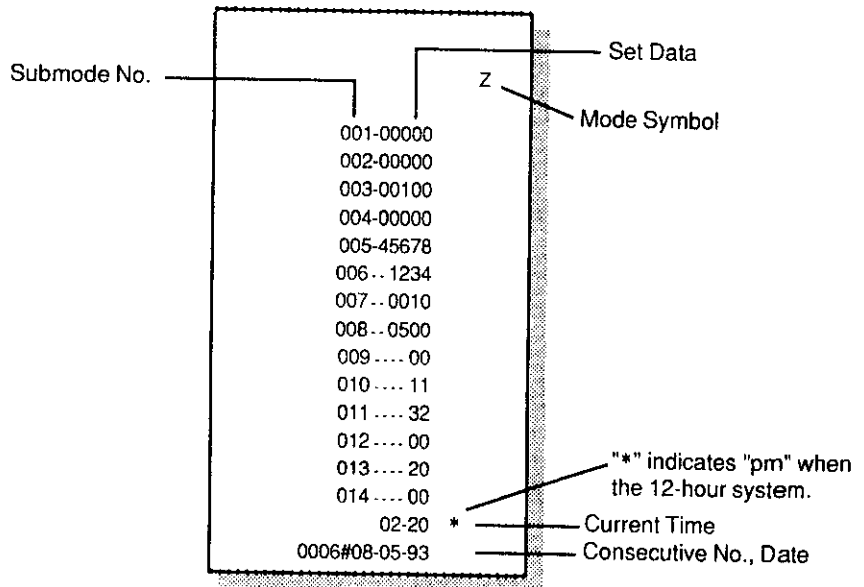
1) **ST** (Tax 1 Table Start Declaration)

↓

2) □ ·········· □ **ST** (Minimum Amount for Tax Rate Calculation)

Max. 4 digits; 0 to 9999(¢)

↓

3) □□□□□ **ST** (Tax Rate)

6 digits; 000000 (0.0000%) to 999999 (99.9999%) *See **NOTE** 1.*

↓

4) □□ **ST** (Rate Calculation Fraction Rounding Method)

2 digits; 00 for Round Down, 50 for Round Off, 99 for Round Up

↓

5) □ ·········· □ **ST** (Start Amount for Cyclic Breaks) *See **NOTE** 2.*

Max. 6 digits; 0 to 999999(¢); enter 0 if there are no Cyclic Breaks.

↓

6) □ ·········· □ **ST** (Minimum Amount for 1st Break) *See **NOTE** 3.*

Max. 4 digits; 0 to 9999(¢)

: *Repeat this break entry for 2nd, 3rd, etc. up to the break that ends one cycle*
: *of this cyclic breaks. See **NOTE** 4.*
↓ If Tax 2 Table setting is not necessary, go to Step **9)** after Step **6)**.

7) **TX2/M** **R/A** (Tax 2 Table Start Declaration, which automatically declares Tax 1 Table End)

↓

8) Follow the Steps **2)** to **6)** above and set Tax 2 Rate and Breaks.

↓

9) **ST** (to complete the entire Tax Table setting operation)

NOTES 1. When no Tax Rate is to be applied and the tax table is made of tax breaks only, enter "0" in Step 2), enter 000000 in Step 3), and enter 00 in Step 4). Then go on to Steps 4), 5), and 6).

2. When there is no Cyclic Breaks in the tax table, enter "0" for the "Start Amount for Cyclic Breaks" in Step 5).

3. The "Minimum Amount for 1st Break" indicates the amount to start taxing, and any amount less than this value will be non-taxable.

4. The difference between the Minimum Amounts of two neighboring breaks, in Step 6), must not exceed 99¢.

5. When only a Tax Rate is to be applied and no tax break settings are necessary, skip Steps 5) and 6).

6. The following are calculation methods when both Tax Rate and Tax Breaks are set:

   If Objective Amount ≥ Minimum Amount for Tax Rate Calculation (in Step 2):

   ... The tax is calculated by the Tax Rate (%).

   If Objective Amount < Minimum Amount for Tax Rate Calculation (in Step 2):

   When Objective Amount < Minimum Amount for 1st Break (Step 6):

   ... Non-taxable

   When Objective Amount ≥ Minimum Amount for 1st Break (Step 6):

   ... the tax is calculated by the Tax Breaks.

7. Even when only part of the tax table is to be changed, set the entire tax table again.

8. VAT Calculation:

$$VAT = \frac{Objective\ Sale\ Amount \times Rate}{100 + Rate}$$

Example) When Objective Sale Amount = $1.00, Rate = 3.0000%, Rounding Method = Round Up:

$$VAT = \frac{100 \times 3.0000}{100 + 3.0000} = 2.912621$$

↓ Round up

$$= 3$$

9. Tax Calculation With GST Feature:

To realize the CANADA Tax Feature, it is necessary to select in Submode 014:

Code 3 (GST Applied; PST Taxable Total Amount includes GST)
(If any other code is selected, the ordinary tax calculation will be applied.)

When the CANADA Tax Feature is selected, Tax 1 and Tax 2 in the Tax Table Setting operation correspond as in the following:

Tax 1 = GST
Tax 2 = PST

Calculation:

Tax 1 (GST): calculated from Taxable Total 1
Tax 2 (PST): calculated from "Taxable Total 2 + Tax calculated from Taxable Total 1 & 2 by Tax 1"

Tax Table Setting Examples

Tax 1 Table Setting Example 1: % Rate only

Tax Rate: 15% applicable to any amount,
Fraction Round Off

[1][0][0][X] (Submode)

[ST] (Tax 1 Table Setting Start Declaration) ⌐

[0][ST] (Min. Amount for Tax Rate) ⌐

[1][5][0][0][0][0][ST] (Tax Rate 15%) ⌐

[5][0][ST] (Rounding Method) ⌐

[ST] (to complete setting)

```
                                    Z


                                    TX 1
                          0•00
                     15•0000   %
                          50
                       02-28   *
                 0008#08-05-93
```

Tax 1 Table Setting Example 2: Tax Breaks only

To set the following Tax Break Table:

Breaks	Tax	Amount Difference from Previous Break	
$0.01 to $0.10	0¢		⎫
$0.11 to $0.21	1¢	$0.10	Non-cyclic Breaks
$0.22 to $0.35	2¢	$0.11	⎭
$0.36 to $0.50	3¢	$0.14	
$0.51 to $0.64	4¢	$0.15	
$0.65 to $0.78	5¢	$0.14	
$0.79 to $0.92	6¢	$0.14	One cycle of Cyclic Breaks
$0.93 to $1.07	7¢	$0.14	
$1.08 to $1.21	8¢	$0.15	
$1.22 to $1.35	9¢	$0.14	
$1.36 to $1.50	10¢	$0.14	The same cycle repeats.
⋮	⋮	⋮	

Cyclic Breaks

[1][0][0][X] (Submode)

[ST] (Tax 1 Table Setting Start Declaration) ⌐

[0][ST] (Min. Amount for Tax Rate) ⌐

[0][0][0][0][0][0][ST] (Tax Rate) ⌐

[0][0][ST] (Rounding Method) ⌐

[3][6][ST] (Cyclic Break Start Amount) ⌐

[1][1][ST] (Break) ⌐

[2][2][ST] (Break)

[3][6][ST] (Break)   [9][3][ST] (Break)

[5][1][ST] (Break)   [1][0][8][ST] (Break)

[6][5][ST] (Break)   [1][2][2][ST] (Break)

[7][9][ST] (Break)   [1][3][6][ST] (Break)

[ST] (to complete setting)

```
                                    Z


                                    TX 1
                          0•00
                     00•0000   %
                          00
                          0•36
                          0•11
                          0•22
                          0•36
                          0•51
                          0•65
                          0•79
                          0•93
                          1•08
                          1•22
                          1•36
                       02-31   *
                 0009#08-05-93
```

Tax 1 Table Setting Example 3: Tax Breaks & % Rate

To set the following Tax Break Table:

Breaks	Tax	Amount Difference from Previous Break	
$0.01 to $0.10	0¢		
$0.11 to $0.22	1¢	$0.10	
$0.23 to $0.39	2¢	$0.12	
$0.40 to $0.56	3¢	$0.17	Non-cyclic Breaks
$0.57 to $0.73	4¢	$0.17	
$0.74 to $0.90	5¢	$0.17	
$0.91 to $1.08	6¢	$0.17	

⋮

% Rate of 6%, Fraction is Round Off.

Keys		Printout
1 0 0 X (Submode)		Z
ST (Tax 1 Table Setting Start Declaration)		TX 1
1 0 9 ST (Min. Amount for Tax Rate)		1·09
0 6 0 0 0 0 ST (Tax Rate)		06·0000 %
5 0 ST (Rounding Method)		50
0 ST (Cyclic Break Start Amount; 0 for no Cyclic Break portion)		0·00
1 1 ST (Break)		0·11
		0·23
2 3 ST (Break)		0·40
		0·57
4 0 ST (Break)		0·74
5 7 ST (Break)		0·91
7 4 ST (Break)		1·09
9 1 ST (Break)		02-39 *
1 0 9 ST (Break)		0010#08- 05- 93
ST (to complete setting)		
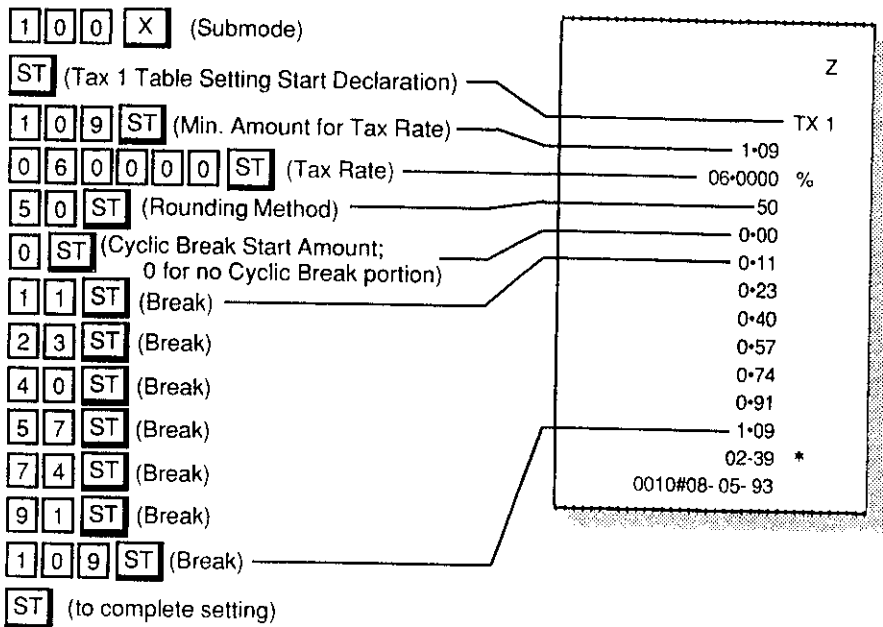
NOTE: Basically, the tax amount levied should increment by 1¢ every time a break is set. However, if 2¢ are to increment for one break, enter the same Break value (Minimum Amount for the Break) twice.

Example)

Breaks	Tax		
⋮	⋮		1 1 ST (Break)
$0.11 to $0.39	1¢		4 0 ST (Break)
$0.40 to $0.56	3¢		4 0 ST (Break)
$0.57 to $0.73	4¢		5 7 ST (Break)
⋮	⋮		⋮

- 28 -
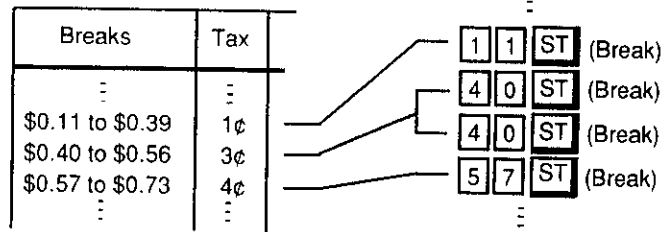
12. Verification of Programmed Data

The set data of Submodes 001 to 014 and the Tax 1 and Tax 2 table contents can be verified by the following operations. A receipt is issued for each operation.

Control Lock: **Z**

OFF
REG2 | REG1
X
Z

To read set data of Submodes 001 to 014:	To read Tax 1 and Tax 2 Tables

[1] [ST]   [2] [ST]

Submode No. ——   —— Set Data

```
                    Z

        001-00000
        002-00000
        003-00000
        004-00000
        005-00000
        006--1104
        007--0000
        008--1000
        009----50
        010----11
        011----02
        012----06
        013----00
        014----00
            01-14   *
    0003#08-05-93
```

```
                    Z

                    TX 1
            1-09
        06-0000  %
            50
            0-11
            0-23
            0-40
            0-57
            0-74
            0-91
            1-09

                    TX 2
            0-00
        15-0000  %
            50
            01-14   *
    0004#08-05-93
```
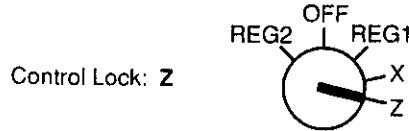
Tax 1 Table:

Tax 2 Table:
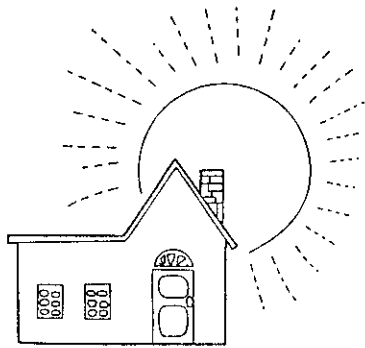
Receipt Consecutive No.

Date

Current Time

When 12-hour time system is selected, the asterisks indicates the time "pm".

13. Daily Operation Flow

The following shows a typical daily operation flow on the register.

Before Opening the Store ...

- Ensure that the register is firmly plugged in the wall outlet. 6

- Check to see if sufficient portion of paper roll remains. 13

- Check the time, date, and print condition. 31, 32

During Business Hours ...
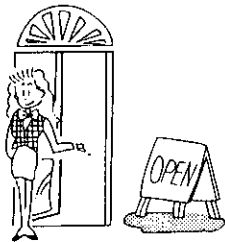
Opening the store

- Ordinary transaction entries 31

- Received-on-Account and Paid Out transactions 38

- Taking Read (X) Report. 39

Closing the store

After Closing the Store ...

- Taking Reset Report 39

- Tear off the print portion of Journal Paper (if the printer is used for journal recording). 40

- Leave the drawer open, and turn the Control Lock to **OFF**. 42

- Take all the cash from the drawer to the office with the journal and Reset (Z) Report. 42

14. Transaction Entries

If the register is programmed with all requirements, it is ready to accept transaction entries. Before starting to enter transactions, turn the Control Lock to either of the two positions below:
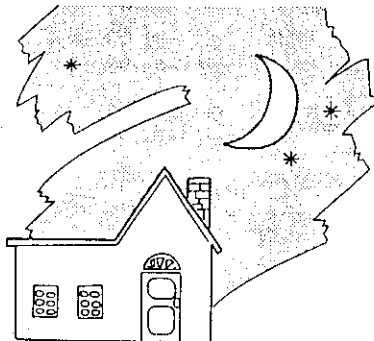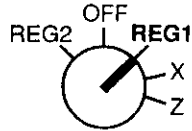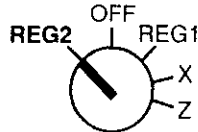

········ This position prints the transaction entry data on the paper roll.

·········This position does not print the transaction entry data on the paper roll.

When an error has occurred ...

When the buzzer sounds continuously and "E" is indicated in the leftmost digit of the display, the last operation has caused an error and the keyboard is locked. In that case:
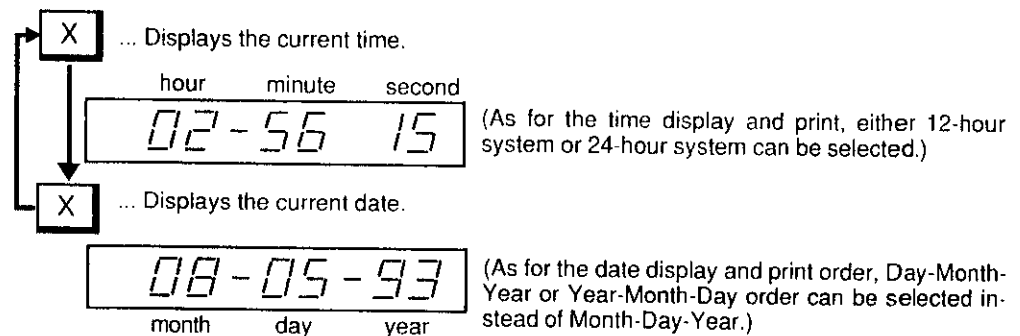
Press the [C] key to cancel the error condition and the keyboard is now operative.

This function of the [C] key is applied to operations in other Control Lock positions. If errors occur repeatedly on operating the same key sequence, check the cause of the error. The following are possible causes of error:

- The Control Lock position is wrong.
- The numeric value entered exceeds the high amount limit.
- A numeric value has not been entered where required.
- A numeric value has been entered where prohibited.
- The key sequence is wrong, or a wrong key has been pressed.
- The operation is not allowed at the current timing.

Displaying the Time and Date

The time and date can be displayed on the register any time when the register is outside a sale.

[X] ... Displays the current time.

hour	minute	second

$$02-56 \quad 15$$

(As for the time display and print, either 12-hour system or 24-hour system can be selected.)

[X] ... Displays the current date.

$$08-05-93$$

month	day	year

(As for the date display and print order, Day-Month-Year or Year-Month-Day order can be selected instead of Month-Day-Year.)
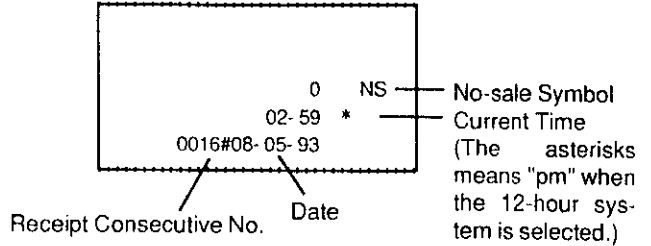
The time or date display will disappear when any key is pressed on the keyboard or the Control Lock position is changed.

No-sale

The No-sale transaction is used to open the drawer without relating to a sale, for such purposes of money exchanges, checking the print condition on the paper roll, etc.
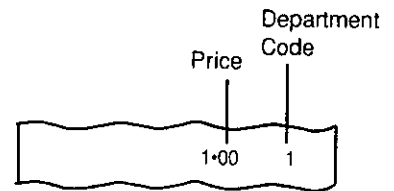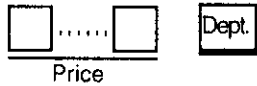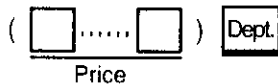
| #/NS | The drawer opens.

```
               0     NS ──── No-sale Symbol
          02- 59   *   ──── Current Time
     0016#08- 05- 93           (The      asterisks
                              means "pm" when
                              the 12-hour sys-
                   Date       tem is selected.)
     Receipt Consecutive No.
```

Sale Item Entries (Department Entries)

1) Entry of One Item

Open-price Department

| □ |..... | □ | |Dept.|
    ‾‾‾‾‾‾‾‾‾‾
       Price

```
                    Department
              Price  Code
                 │     │
               1·00    1
```

Preset-price Department

(| □ |..... | □ |) |Dept.| When a Preset-price Department key is simply depressed,
    ‾‾‾‾‾‾‾‾‾‾‾   the preset price is entered. When a price is entered prior to
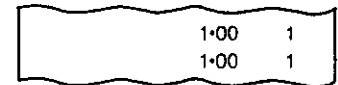   Price   the Department Key, the manually entered price prevails.

NOTE: The Price entry is possible up to 7 digits. However, it is limited by the Department HALC (High Amount Listing Capacity) .

2) Repeat Entry

Open-price Department

| □ |..... | □ | |Dept.| |Dept.| .....
    ‾‾‾‾‾‾‾‾‾‾
       Price   Same Department Key

Preset-price Department

(| □ |..... | □ |) |Dept.| |Dept.| ......
    ‾‾‾‾‾‾‾‾‾‾‾
       Price   Same Department Key

```
               1·00    1
               1·00    1
```

NOTE 1. Depress again the Department key that has been depressed for one item entry. The item entry will be repeated as many times as the key is depressed.
2. When a price is manually entered through a Preset-price Department key, the manual price will be entered by the Repeat Entry operation. If the preset price must be entered instead of repeating the manually entered price, first depress the [C] key then depress the Department Key.
3. An item entered through a Negative Department cannot be repeated.

3) Quantity Extension (Multiplication)

<u>Open-price Department</u>

☐ ..... ☐ [X] ➔ ☐ ...... ☐ [Dept.]

Quantity (max. 3 digits)　　　Unit Price

<u>Preset-price Department</u>

☐ ..... ☐ [X] ➔ (☐ ...... ☐) [Dept.]

Quantity (max. 3 digits)　　　Unit Price

Unit Price　　Quantity

```
        3    x
 2•30       @
 6•90       1
```
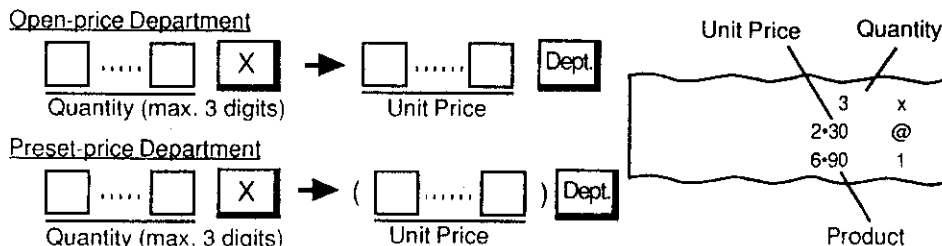
Product

NOTE *The product (obtained by multiplication) must not exceed 7 digits.*

4) Single-item Department

If a Department Key is programmed with Single-item status, any entry through the key will immediately finalizes the sale as cash without operating any media key.

The operation is the same as ordinary Itemized Department keys already described (**Entry of One Item, Quantity Extension**), except that Repeat Entry is not possible using a Single-item Department key.

```
  1•00     3    ── Dept. Item
  1•00    ST    ── Subtotal
  1•00  *  1    ── Taxable 1
  0•06  TX 1    ── Tax 1
  1•00  *  2    ── Taxable 2
  0•15  TX 2    ── Tax 2
  1•21  CA      ── Cash Total
  03-06  *
0020#08-05-93
```

5) Tax Modification (applicable to Add-on Tax Feature)

Each department is programmed with its own Tax status (Non-taxable, Tax 1 Taxable, Tax 2 Taxable, or Tax 1 & 2 Taxable). To reverse the Tax status (from taxable to non-taxable, or vice versa), depress the following keys before or during the required department item entry (before the Department Key, at the latest). (Refer to **Entry of One Item, Repeat Entry, Quantity Extension.**)

[TX1/M / PO] ..... to reverse Tax 1 status　　　[TX2/M / R/A] ,,,,,,to reverse Tax 2 status

When both Tax 1 status and Tax 2 status must be reversed, depress the two keys consecutively.

NOTES 1.　*The tax-modified status declared by those Tax Modifier keys will be held until another item is entered. The modified status is held even when the item is repeated.*

2.　*When a Department item is tax-modified and repeated and the same item (with the same price and department) must still be entered consecutive within a sale with the original tax status regained, depress the [C] key before entering original tax-status item.*
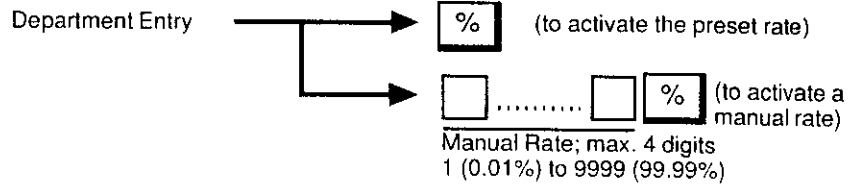
6) Negative Department (Returned Merchandise)

When one of the Department keys are programmed with Negative status, an entry through that department will automatically process the entered amount into negative. Returned merchandise may be entered. The operation is the same as positive Department keys (refer to **Entry of One Item, Quantity Extension**) except that Repeat Entry is not possible.
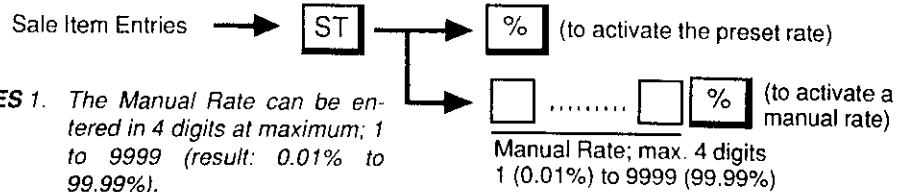
```
   - 2•50    4
```

- 33 -
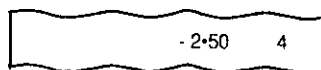
Percent Discount or Percent Charge

The [%] key can be programmed to function Percent Discount or Percent Charge.

1) Percent Discount/Charge on a Department Item

Department Entry ──────────────▶ [%]   (to activate the preset rate)

──────────────▶ [ ] ········· [ ] [%]   (to activate a manual rate)

Manual Rate; max. 4 digits
1 (0.01%) to 9999 (99.99%)

2) Percent Discount/Charge on Subtotal

Sale Item Entries ──────────▶ [ST] ──────▶ [%]   (to activate the preset rate)

NOTES 1. The Manual Rate can be en-
tered in 4 digits at maximum; 1
to 9999 (result: 0.01% to
99.99%).

──────────▶ [ ] ········· [ ] [%]   (to activate a manual rate)

Manual Rate; max. 4 digits
1 (0.01%) to 9999 (99.99%)

2. When a Manual Rate is entered,
the preset rate is disregarded.

3. The Percent Discount/Charge
cannot be operated after a Void
(Last Line Voiding or Desig-
nated Line Voiding) entry.

```
        6·00  ST  ──── Subtotal
       10·00  %   ──┐
       - 0·60       │ 10.00%
                    └ Discount
```
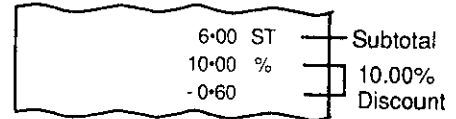
Void

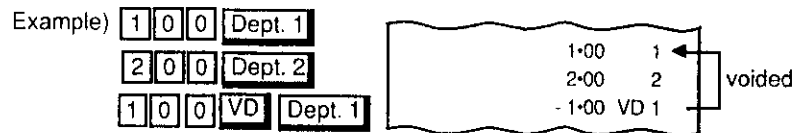Sale items once entered within the current sale can be voided.

1) Last Line Voiding

When the last line item (that has just been entered within the current transaction) is a
Department item or Percent Discount/Charge item, it can be voided by simply pressing the [VD]
key.

Department Entry ──────────┐
                           ├─▶ [VD]
Percent Discount/Charge ───┘

```
        2·00     1 ◀──┐
      - 2·00  VD 1   ─┘ voided
```
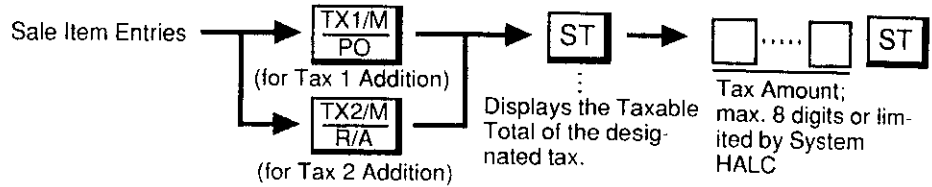
2) Designated Line Voiding

When a Department item entered before the last item is cancelled before the sale is finalized,
it can be voided. To operate it, follow the ordinary Department entry procedure (**Entry of One
Item, Quantity Extension**) except that the **[VD]** key is depressed just before the Department
key depression.

Example) [1][0][0][Dept. 1]

[2][0][0][Dept. 2]

[1][0][0][VD][Dept. 1]

```
        1·00     1 ◀──┐
        2·00     2    │ voided
      - 1·00  VD 1   ─┘
```

NOTE   To void a Preset-price Department entry using the Designated Line Voiding function,
the price must be entered. If the price entry is omitted, the key may function as Last
Line Voiding described in 1) above.

Manual Tax (applicable to Add-on Tax Feature only)

This operation is used to add an irregular tax amount that cannot automatically be calculated on the basis of the programmed tax tables.

Sale Item Entries ⟶ | TX1/M / PO | (for Tax 1 Addition) ⟶ TX2/M / R/A (for Tax 2 Addition) ⟶ ST → ☐.....☐ ST

Displays the Taxable Total of the desig-nated tax.

Tax Amount; max. 8 digits or lim-ited by System HALC

NOTES 1. The Manual Tax entry is not possible when the taxable total of the desig-nated tax is zero.
2. The Manual Tax entry is allowed only once for each tax in a sale.
3. After entering manual tax(es), the sale must immediately be finalized.
4. The Manual Tax amount entered replaces the ordinary tax amount that was to be calculated automatically on the basis of the programmed tax table.

```
        1·00    1
        0·13 TX 1    Manual
                     Tax
```
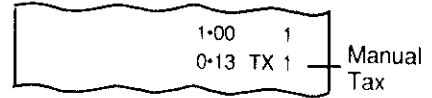
Non-add Number Print

This function is to print any code number for future reference, such as Customer No., Credit Card No., House Charge Account No., etc. Non-add numbers can be entered at the starting of a sale or during a sale if the sale is not finalized. Multiple non-add numbers can be entered in a sale.

☐ ....☐ #/NS

Non-add Number; max. 8 digits

```
        12345678    #    Non-add Number
```

Subtotal Read

To read the total of the current sale by the customer's request or the operator's requirement, simply depress the **[ST]** key.
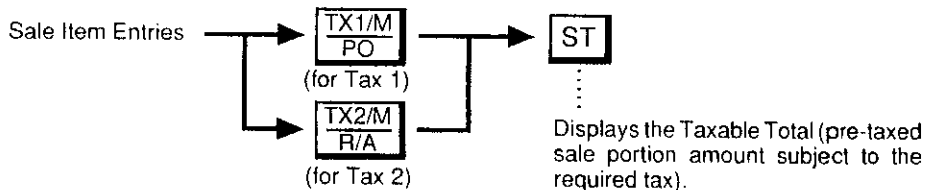
Sale Item Entries ⟶ ST

Displays the subtotal (sale total _including taxes_ up to the moment).
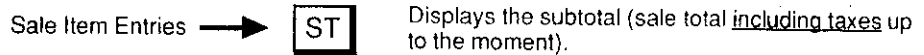
NOTES 1. Printing of the subtotal amount (_pre-taxed_ sale total) by the operation above can be selected by a program option.

```
        5·60 ST
```

2. When the Subtotal Compulsory option is selected, the **[ST]** key is always required before finalizing a sale.

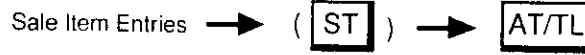## Taxable Total Read (applicable to Add-on Tax Feature only)

In need of reading the Taxable Total (pre-taxed amount) for a required tax (Tax 1 or Tax 2) during a sale, operate the following.

Sale Item Entries ⟶ | TX1/M / PO | (for Tax 1) ⟶ TX2/M / R/A (for Tax 2) ⟶ ST

Displays the Taxable Total (pre-taxed sale portion amount subject to the required tax).

Finalizing a Sale

1) Cash Total

Sale Item Entries ➡ (ST) ➡ AT/TL

```
    6•00 ST    ──── Subtotal (manual print or auto-print)
    4•00  *  1  ──── Taxable Total 1 (optional print)
    0•24 TX 1  ──── Tax 1
    5•00  *  2  ──── Taxable Total 2 (optional print)
    0•75 TX 2  ──── Tax 2
    6•99 CA    ──── Cash Sale Total
   03- 27  *
0035#08-0 5- 93
```

2) Cash Tender
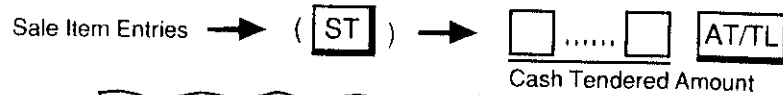
Sale Item Entries ➡ (ST) ➡ ☐ ...... ☐ AT/TL

Cash Tendered Amount

```
    6•00 ST    ──── Subtotal (pre-taxed sale total)
    4•00  *  1  ──── Taxable Total 1 (optional print)
    0•24 TX 1  ──── Tax 1
    5•00  *  2  ──── Taxable Total 2 (optional print)
    0•75 TX 2  ──── Tax 2
    6•99    TA  ──── Sale Total including Taxes
   10•00 CA    ──── Cash Tendered
    3•01 CG    ──── Change due
   03- 27  *
0036#08- 05- 93
```
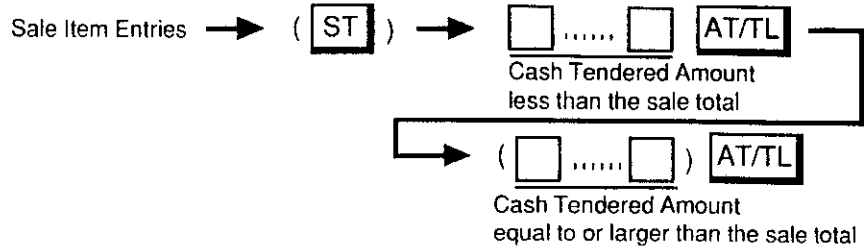
NOTE: The sale is finalized as in the sample receipt above when the tendered amount is equal to or larger than the sale total (including taxes). When the tendered amount is smaller than the sale total (short-tendered), the balance due is displayed and the sale is not finalized. In such cases, refer to "4) **Multi-tender**" and "5) **Split Tender**" on the next page.
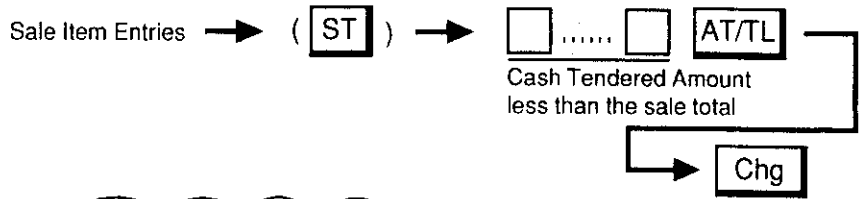
3) Charge or Credit Total
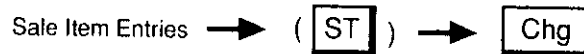
Sale Item Entries ➡ (ST) ➡ Chg

```
    6•00 ST    ──── Subtotal (manual print or auto-print)
    4•00  *  1  ──── Taxable Total 1 (optional print)
    0•24 TX 1  ──── Tax 1
    5•00  *  2  ──── Taxable Total 2 (optional print)
    0•75 TX 2  ──── Tax 2
    6•99 CH    ──── Charge or Credit Sale Total
   03- 28  *
0037#08- 05- 93
```

4) Multi-tender

Sale Item Entries ➡ (ST) ➡ ☐ ,,,,,, ☐ AT/TL

Cash Tendered Amount
less than the sale total

➡ (☐ ,,,,,, ☐) AT/TL

Cash Tendered Amount
equal to or larger than the sale total

6•00	ST	Subtotal (pre-taxed sale total)
4•00	* 1	Taxable Total 1 (optional print)
0•24	TX 1	Tax 1
5•00	* 2	Taxable Total 2 (optional print)
0•75	TX 2	Tax 2
6•99	TA	Sale Total including Taxes
2•00	CA	**Cash Tendered** (short-tendered)
4•99	TA	Balance due
5•00	CA	**Cash Tendered** (over-tendered)
0•01	CG	**Change due**
03- 29	*	
0038#08-0 5- 93		

5) Split Tender

Sale Item Entries ➡ (ST) ➡ ☐ ,,,,,, ☐ AT/TL

Cash Tendered Amount
less than the sale total

➡ Chg

6•00	ST	Subtotal (pre-taxed sale total)
4•00	* 1	Taxable Total 1 (optional print)
0•24	TX 1	Tax 1
5•00	* 2	Taxable Total 2 (optional print)
0•75	TX 2	Tax 2
6•99	TA	Sale Total including Taxes
2•00	CA	**Cash Tendered** (short-tendered)
4•99	CH	**Charge or Credit Total**
03- 31	*	
0039#08- 05- 93		

NOTES 1. *A maximum of 8 digits can be entered as Tendered Amount (up 79999999). However, it is limited by the System HALC if a limit of less than 8 digits is programmed.*
2. *The [AT/TL] key will always require a tendered amount entry if "Amount Tender Compulsory" option is selected.*
3. *When the sale total is zero or negative, the sale can only be finalized by Cash Total function regardless of option selections.*
4. *Neither Multi-tender nor Split Tender are possible for a negative sale total.*

The following operations require the Control Lock position to the **X** position.

```
        OFF
REG2     |    REG1
        /   \
       (     )--- X
        \   /
          --- Z
```
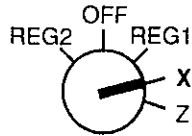
Received-on-Account Payment (Control Lock: **X**)

The Received-on-Account transaction is used to identify money which is in the drawer but not due to business. For example, a customer pays for a sale finalized as house charge on a past day, or the operator records the change reserve in the drawer loaded from the store office. This operation must be performed <u>outside a sale only</u>.

[ ]......[ ] | TX2/M |
                | R/A |

The drawer opens to enable money entry into the drawer.

Payment Amount Received;
max. 8 digits (up to 79999999),
or limited by HALC

```
            10•00  RA
            03- 38  *
      0041#08- 05- 93
```

Paid Out (Control Lock: **X**)

The Paid Out transaction is used when an amount of money is removed from the drawer without relating to a sale, for the purpose of paying to a wholesaler, etc. This operation must be performed <u>outside a sale only</u>.

[ ]......[ ] | TX1/M |
                | PO |

The drawer opens to enable paying out.

Amount to be paid out;
max. 8 digits (up to 79999999),
or limited by System HALC

```
            12•00  PO
            03- 38  *
      0040#08- 05- 93
```
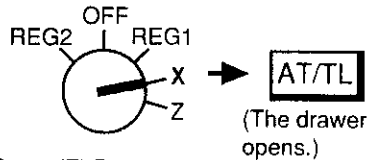
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15. Read (X) and Reset (Z) Reports

This chapter describes the operation to take Read and Reset reports and their print format.
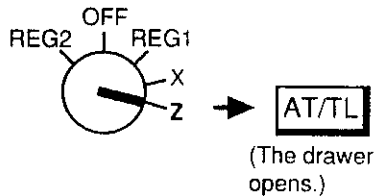
Before Taking Reports ...

● The Read (X) Report allows to read the totals but not clear the memory, while the Reset (Z) Report allows to read the totals and, at the same time, clear all the resettable totals when the report has been issued.

● The symbol "X" is printed at the top right of a Read Report, while "Z" is printed on a Reset Report to indicate the type of report. The contents of the two types of reports are the same if both are taken at the same time.

Operation

Read (X) Report

```
       OFF
REG2    |    REG1
         \___ X  ➔  [AT/TL]
          \
           Z     (The drawer
                  opens.)
```

Reset (Z) Report

```
       OFF
REG2    |    REG1
         \___ X
          \
           Z  ➔  [AT/TL]
                  (The drawer
                  opens.)
```

Memory Balance

Sum of All Depts.
= (Positive Depts. Total)
- (Negative Depts. Total)

Net Sales
= (Cash Sales) + (Charge Sales)

Cash-in-drawer Amount
= (Cash Sales) + (Received-on-Account) - (Paid Out)

Net Grand Total
= (Sum of Daily Net Sales)

Report Sample Format

|		
0001	Z	Reset Counter / Reset Report Symbol ("X" for Read Report)
87·67	* TA	Net Grand Total (non-resettable)
22	#	Dept.1 Sales: Item Count
26·90	1	Amount
11	#	Dept.2 Sales: Item Count
24·75	2	Amount
11	#	Dept.3 Sales: Item Count
29·00	3	Amount
2	#	Dept.4 Sales: Item Count
- 3·50	4	Amount
77·15	TA	Sum of All Depts.
2	#	Void Count
3·00	VD	Amount
3	#	Percent (+ or -) Count
- 0·85	%	Amount
53·50	ST	Taxable Total 1 Amount
3·13	TX 1	Tax 1 Amount
53·25	ST	Taxable Total 2 Amount
7·99	TX 2	Tax 2 Amount
24	* #	Total Customer Count
87·67	NT	Net Sales (with Tax)
74·69	CA	Cash Sales Amount
3	#	Charge Sales Count
12·98	CH	Amount
1	#	Received-on-Account Count
10·00	RA	Amount
1	#	Paid Out Count
12·00	PO	Amount
2	NS	No-sale Count
72·69	CG	Cash-in-drawer Amount
03- 40	*	Current Time
0043#08- 05- 93		Consecutive No., Date

16. Maintenance

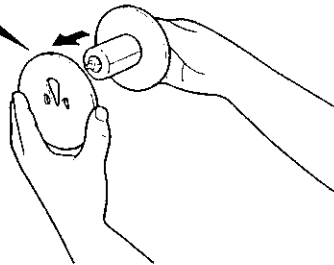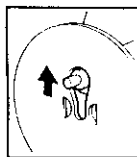## Replacing the Paper Roll
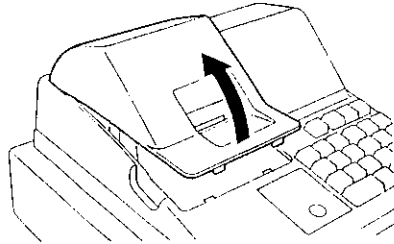
① Remove the Paper Cover.
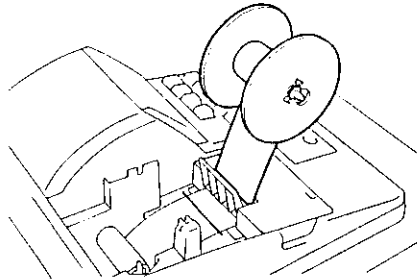
② If the printer is used for Journal, hold down the **[FEED]** key to wind up the printed portion of paper, then cut the paper as shown in the figure. Hold down the **[FEED]** key again to advance the remaining paper end.
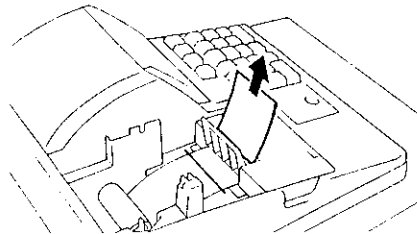
If the printer is used for Receipt, cut the paper roll as shown in the figure. Then hold down the **[FEED]** key to advance the remaining paper end.
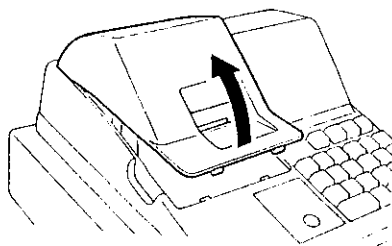
The wound-up portion of the paper (when used for Journal) can easily be removed from the Reel by pulling it sideways.

③ Set the paper roll ready for print. *Refer to Chapter "10. Installing the Paper Roll"*.
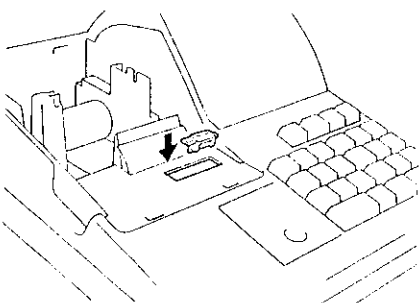
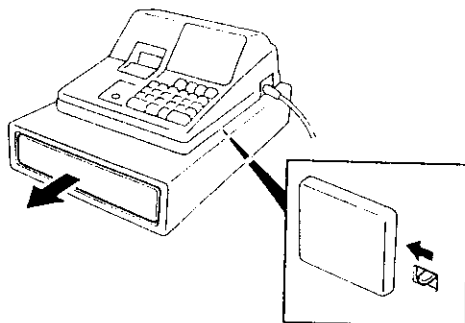## Replacing the Ink Roller

① Remove the Paper Cover.
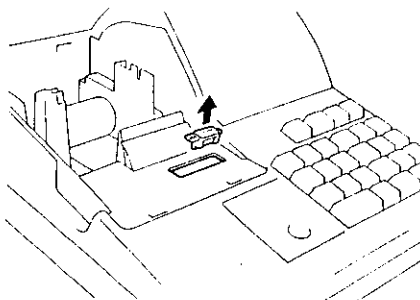
② Pinch the Ink Roller Knob with your fingers, and pull it up ward.

③ Insert the new Ink Roller in the slot of the carriage by pushing it all the way in until it is firmly settled with a "click" sound.
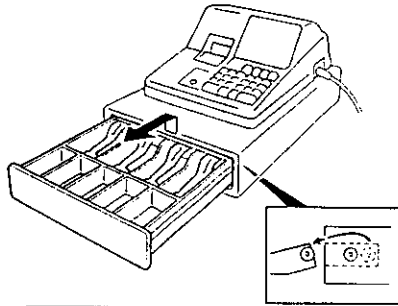
Manual Drawer Release

The drawer will automatically open on appropriate operations. However, in the even of a power failure, etc., the drawer can be released manually.
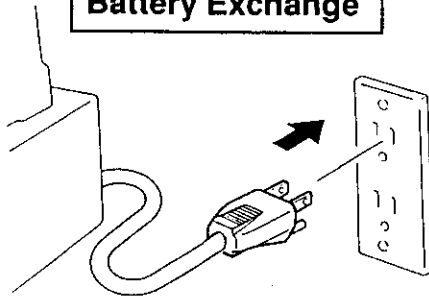
The Drawer Release Lever is located on the bottom side of the register. Push the lever in the direction of the arrow, and the drawer opens.
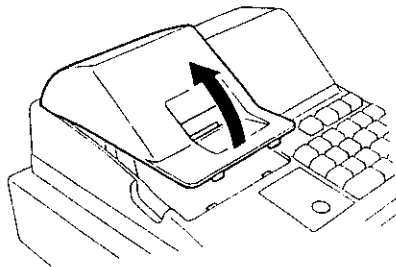
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Removing the Drawer

Pull out the drawer all the way until it hits the stopper. Then lift up the drawer and pull it again.
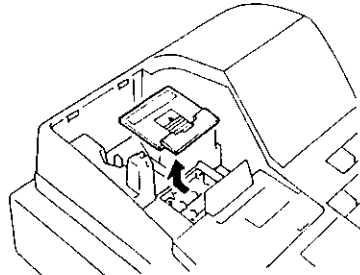
Battery Exchange

①

To exchange batteries, please keep the power cord of the register connected to the wall outlet. If the batteries are removed with the power cord disconnected, the programmed data and sales data will all be cleared.
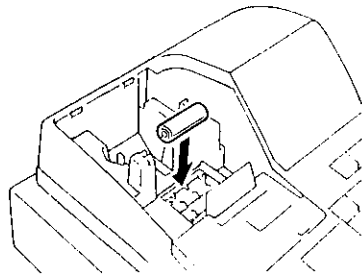
②

Remove the Paper Cover.

③

Remove the paper roll, the Take-up Reel (if used for Journal), and the Battery Cover.

④

Replace the old batteries with new ones. (Batteries: SUM-3 1.5V x 3 pieces)

⑤

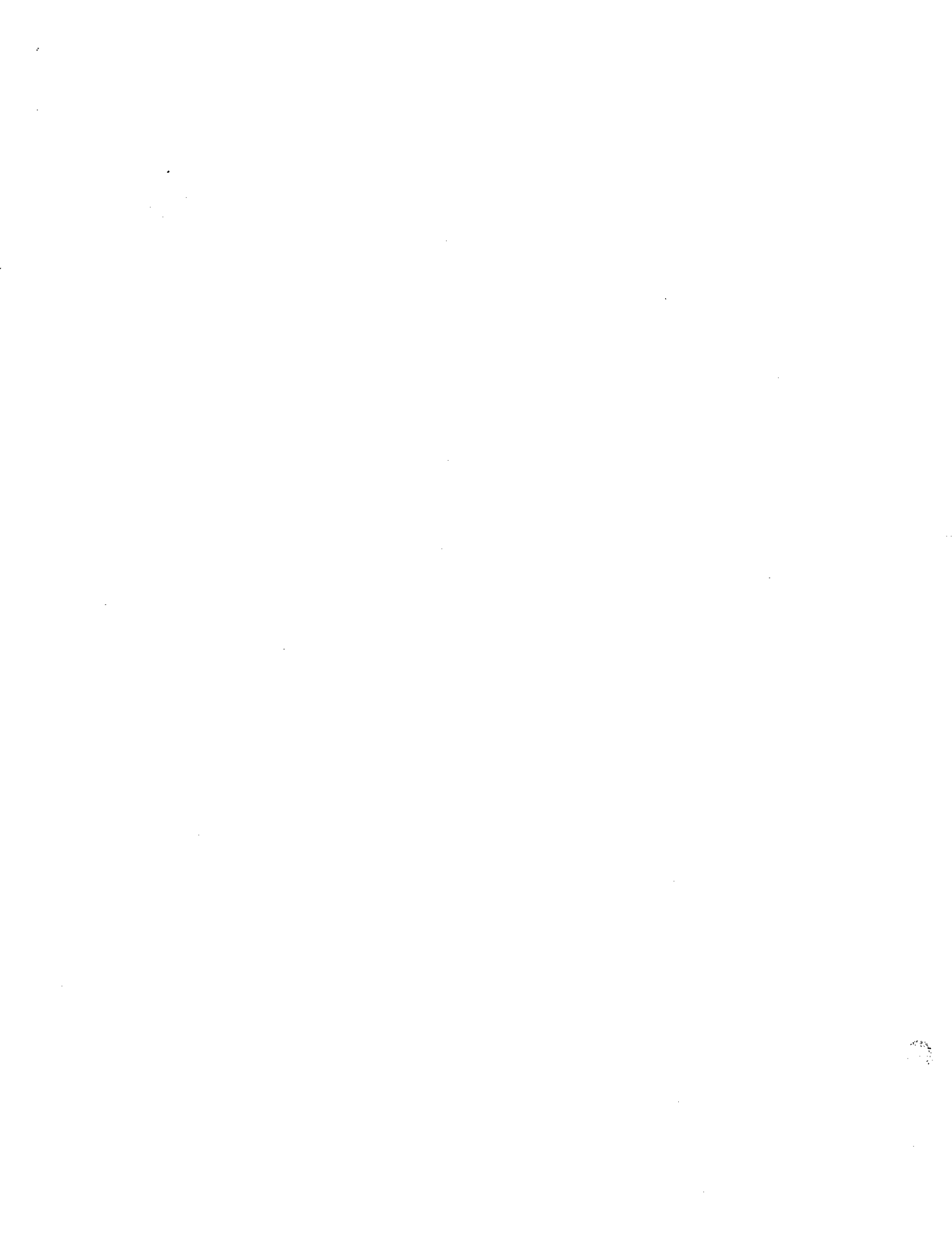Return the items removed in Step 3, and attach the Paper Cover.

17. Specifications

Size ....325mm (width) x 425mm (depth) x 224.5mm (height)

Weight..............................4.8Kg (product only), 6.3Kg (including package)

Power Required ....117V±10%, 60Hz

Power Consumed 0.16A

Operating Temperature......0°C to 40°C

Operating Humidity ....10% to 90% RH

Size of Paper Roll ....57.5±0.5mm (width) x max. 80mm (diameter),
0.06 to 0.085mm (thickness)

Memory Protection ....Dry Battery SUM-3 1.5 x 3 pieces;
Life of about 1 year

```
┌─ Handling the Batteries ─────────────────────────────────────┐
│                                                               │
│ • ..When inserting batteries, place them so that the positive (+) and negative │
│      (-) ends face the proper directions as shown in the battery compartment.  │
│ • ..Do not mix used and new batteries in the battery compartment.  Replace     │
│      all batteries at the same time.                          │
│ • ..Do not leave discharged batteries in the battery compartment.  Leakage     │
│      from such batteries may damage the register.             │
│ • ..Do not dispose the batteries in a fire.  If put in a fire, they may explode.│
└───────────────────────────────────────────────────────────────┘
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Specifications are subject to change without notice.

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TOKYO ELECTRIC CO., LTD.