

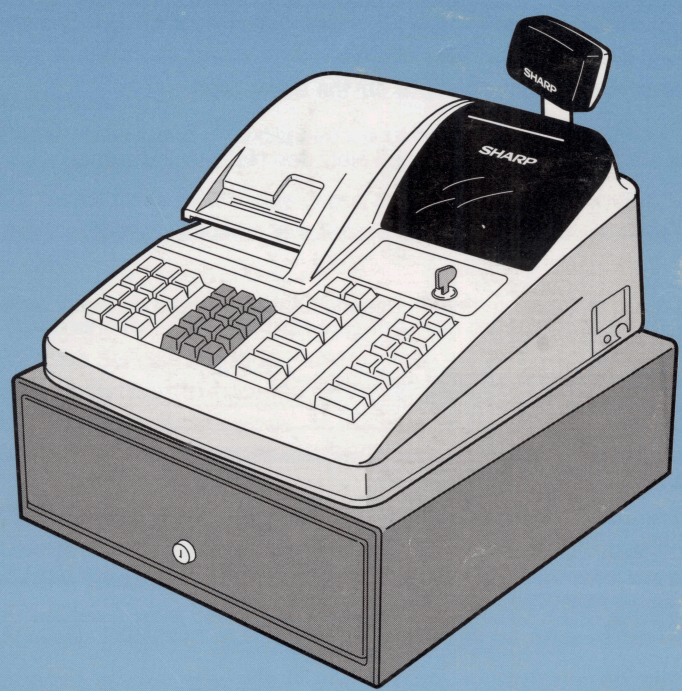
# SHARP®

## ELECTRONIC CASH REGISTER

MODEL

# ER-A310

### INSTRUCTION MANUAL





**CAUTION:**

The cash register and the remote drawer should be securely fitted to the supporting platforms to avoid instability when the drawers are open.

**CAUTION:**

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

**VORSICHT:**

Die Netzsteckdose muß nahe dem Gerät angebracht und leicht zugänglich sein.

**ATTENTION:**

La prise de courant murale devra être installée à proximité de l'équipement et devra être facilement accessible.

**AVISO:**

El tomacorriente debe estar instalado cerca del equipo y debe quedar bien accesible.

**WARNING:**

Det matande vägguttaget skall placeras nära apparaten och vara lätt åtkomligt.

**CAUTION:**

For a complete electrical disconnection pull out the mains plug.

**VORSICHT:**

Zur vollständigen elektrischen Trennung vom Netz den Netzstecker ziehen.

**ATTENTION:**

Pour obtenir une mise hors-circuit totale, débrancher la prise de courant secteur.

**AVISO:**

Para una desconexión eléctrica completa, desenchufar el enchufe de tomacorriente.

**WARNING:**

För att helt koppla från strömmen, dra ut stickproppen.

This equipment complies with the requirements of Directives 89/336/EEC and 73/23/EEC as amended by 93/68/EEC.

Dieses Gerät entspricht den Anforderungen der EG-Richtlinien 89/336/EWG und 73/23/EWG mit Änderung 93/68/EWG.

Ce matériel répond aux exigences contenues dans les directives 89/336/CEE et 73/23/CEE modifiées par la directive 93/68/CEE.

Dit apparaat voldoet aan de eisen van de richtlijnen 89/336/EEG en 73/23/EEG, gewijzigd door 93/68/EEG.

Dette udstyr overholder kravene i direktiv nr. 89/336/EEC og 73/23/EEC med tillæg nr. 93/68/EEC.

Quest' apparecchio è conforme ai requisiti delle direttive 89/336/EEC e 73/23/EEC, come emendata dalla direttiva 93/68/EEC.

**Η εγκατάσταση αυτή ανταποκρίνεται στις απαιτήσεις των οδηγιών της Ευρωπαϊκής Ένωσης 89/336/EOK και 73/23/EOK, όπως οι κανονισμοί αυτοί συμπληρώθηκαν από την οδηγία 93/68/EOK.**

Este equipamento obedece às exigências das directivas 89/336/CEE e 73/23/CEE, na sua versão corrigida pela directiva 93/68/CEE.

Este aparato satisface las exigencias de las Directivas 89/336/CEE y 73/23/CEE, modificadas por medio de la 93/68/CEE.

Denna utrustning uppfyller kraven enligt riktlinjerna 89/336/EEC och 73/23/EEC så som komplette ras av 93/68/EEC.

Dette produktet oppfyller betingelsene i direktivene 89/336/EEC og 73/23/EEC i endringen 93/68/EEC.

Tämä laite täyttää direktiivien 89/336/EEC ja 73/23/EEC vaatimukset, joita on muutettu direktiivillä 93/68/EEC.



---

# INTRODUCTION

Thank you very much for your purchase of the SHARP Electronic Cash Register, Model ER-A310. Please read this manual carefully before operating your machine in order to gain a full understanding of its functions and features.

Please keep this manual for future reference. It will help you if you encounter any operational problems.

---

# IMPORTANT

- **Install your cash register in a location that is not subject to direct radiation, unusual temperature changes, or high humidity or exposed to water sources.**  
Installation in such locations could cause damage to the cabinet and the electrical components.
- **The register should not be operated by an individual with wet hands.**  
The water could seep into the interior of the register and cause component failure.
- **When cleaning your register, use a dry, soft cloth. Never use solvents, such as benzine and thinner.**  
The use of such chemicals will lead to discoloration or deterioration of the cabinet.
- **The register plugs into any standard wall outlet (official (nominal) voltage) .**  
Other electrical devices on the same electrical circuit could cause the register to malfunction.
- **If the register malfunctions, call your dealer for service - do not try to repair the register yourself.**



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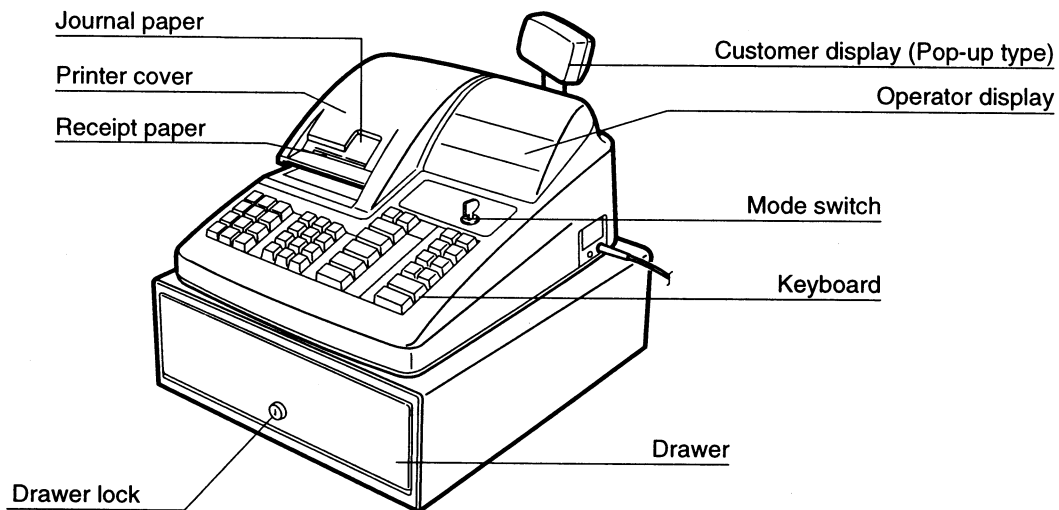


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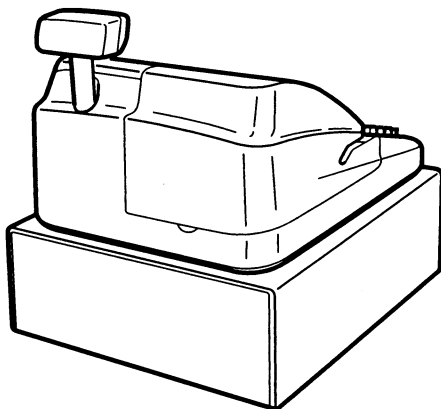
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# EXTERNAL VIEW

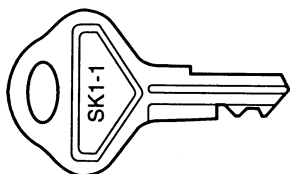
## ■ Front view



## ■ Rear view



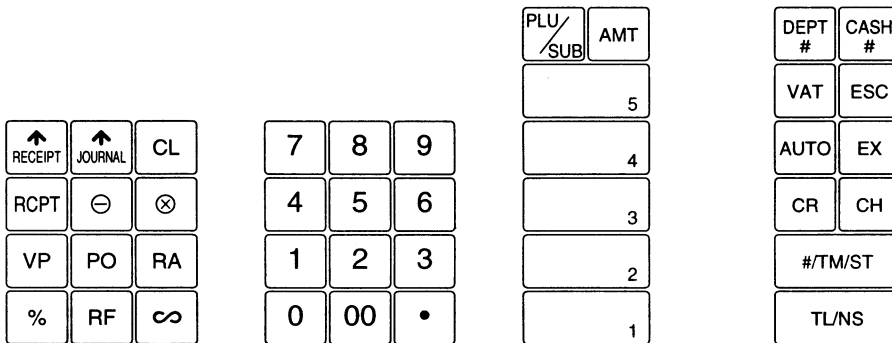
## ■ Drawer lock key



This key locks and unlocks the drawer. To lock it, turn 90 degrees counterclockwise. To unlock it, turn 90 degrees clockwise.



# KEYBOARD



**Note** All the keys but the numeric, clear, decimal point, multiplication/split pricing, non-add code/time display/subtotal, total/no-sale, and two paper feed keys can be changed in their positions. If you want to change the layout, contact your dealer.

## Standard keys

	Receipt paper feed key		Percent key
	Journal paper feed key		Total/no-sale key
~	} Numeric keys		Received-on-account key
			Paid-out key
	Decimal point key		Value added tax key
	Multiplication/split pricing key		Refund key
	Clear key		Void key
	Validation print key		Credit key
~	Department keys		Cheque key
	Price lookup/subdepartment key		Foreign currency exchange key
	Error escape key		Amount key
	Receipt print key		Non-add code/time display/subtotal key
	Discount key		Department code entry key
	Automatic sequencing key		Cashier number entry key

## ■ Optional keys



Department keys



Automatic sequencing 2 key



Cash total 2 key



Foreign currency exchange 2 through 4 keys



Cheque 2 through 4 keys



Discount 2 key



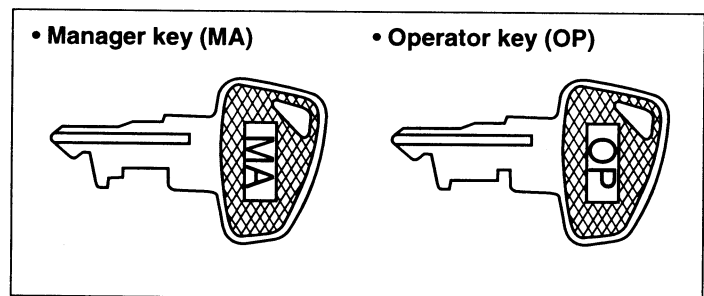
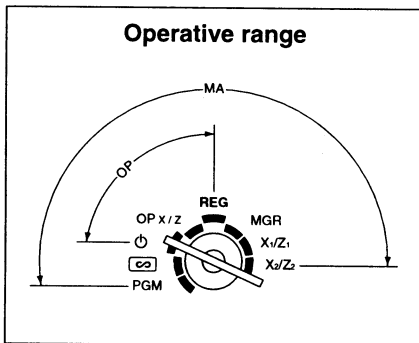
Percent 2 key





Credit 2 key

# MODE SWITCH AND MODE KEYS

The mode switch can be operated by inserting one of the two supplied mode keys - manager (MA) and operator (OP) keys. These keys can be inserted or removed only when the switch is in the "REG" or "⊖" position.



The mode switch has these settings:

- ⊖ : This mode locks all register operations.  
No change occurs to register data in this mode.
- OP X/Z:** This setting allows cashiers to take X or Z reports on their sales information or flash reports (only when your register has been programmed for "OP X/Z report available" and "Flash report available" in the PGM mode). It can also be used to display the time, print the employee arrival and departure times, or toggle receipting function status "ON" and "OFF" by pressing the  key.
- REG:** For entering sales
- PGM:** To program various items
-  : This setting allows correction after finalizing a transaction.
- MGR:** For manager's entries  
The manager can use this mode for an override entry.
- X1/Z1:** To take the X/Z report on various daily totals
- X2/Z2:** To take the X/Z report on various periodic (weekly or monthly) consolidation

# DISPLAYS

## Operator display

## Customer display (Pop-up type)



**Amount:** Appears in the far-right eight (max.) positions.

**Cashier number:** Appears in the second and third positions (two digits).

**Number of repeats for repetitive registrations:**

The number of repeats is displayed, starting at "2" and incremented with each repeat.

When you have registered ten times, the display will show "0."

Example: (2->3->4.....9->0->1->2...)

**Receiving function status:**

The indicator "\_" appears in the ninth position when the receiving function is put in the OFF status.

**Time:** Appears in the far-right five positions in the OP X/Z, REG, MGR, or  $\infty$  mode. In the REG, MGR, or  $\infty$  mode, press the  $\overline{\text{\#TMST}}$  key to display the time.

## ■ Machine state symbols

**P:** Appears in the tenth place during programming.

**E:** Appears in the tenth place when an error is detected.

**- (Floating):** Appears when a minus department or PLU/subdepartment entry is made or when a discount, refund, or void entry is made.

**D:** Appears in the tenth place when the subtotal is displayed or when the amount tendered is smaller than the sale amount.

**C:** Appears in the tenth place when the  $\overline{\text{EX}}$  through  $\overline{\text{EX4}}$  key is pressed to calculate a subtotal in foreign currency.

**F:** Appears when a transaction is finalized by pressing the  $\overline{\text{TL/NS}}$ ,  $\overline{\text{CA2}}$ ,  $\overline{\text{CH}}$  through  $\overline{\text{CH4}}$ ,  $\overline{\text{CR}}$ , or  $\overline{\text{CR2}}$  key.

**L:** Appears when the change due amount is displayed or when the cash/cheque declaration is compulsory.

**L:** Appears when the battery replacement is needed.

**U:** Appears when the validation printing is compulsory.



# BEFORE OPERATING THE CASH REGISTER

This chapter describes those steps required to take when you use the cash register for the first time.

## 1 Installing the cash register

Unpack the cash register and place it in a location near a wall outlet. Be sure to locate it in such a location as described in "IMPORTANT."

## 2 Initializing the cash register

You must initialize the cash register's memory in advance when programming it for the first time. Use the following procedure:

1. Turn the mode switch to the REG position.
2. Ensure the batteries are not installed in the battery compartment and insert the plug into the outlet.
3. The right most decimal point will blink for a few seconds.
4. The register will sound three beeps.
5. The register will display "L 000."
6. Now proceed with battery installation as described below.

## 3 Installing batteries

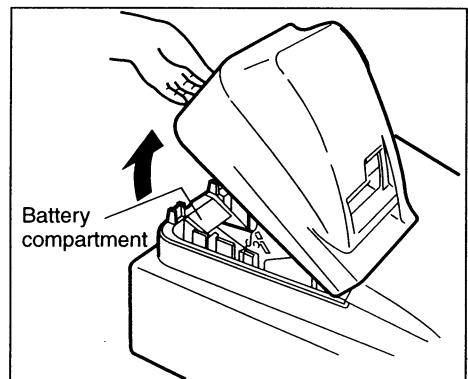
You must install batteries in the cash register. The batteries prevent the data and user-programmed settings from being erased because of an accidental power-down or power failure. Before using the register, purchase and install three AA batteries. They will last approximately one year. If the low battery symbol "L" appears on the far left of the display, you must replace them within two days.

**Caution** To protect the AA batteries from failures or leakages:

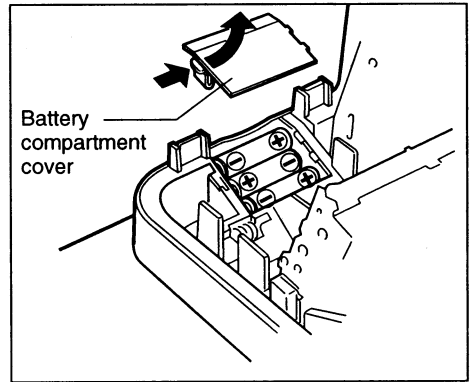
- do not use batteries of different types.
- do not use new batteries with any old ones.
- do not short out any batteries.
- do not disassemble any batteries.
- make sure that the polarity of each battery is correct.
- do not throw any spent batteries into combustible waste.
- do not burn any spent batteries.

To install the batteries:

1. Turn the mode switch to the OP X/Z position with the AC cord connected.
2. Remove the printer cover.



3. Open the battery compartment cover.
  - Press the tab in the direction of the arrow then pull and lift the cover to expose the battery compartment.
4. Install the three new AA batteries in the battery compartment and check that the “L” symbol has disappeared.
5. Close the battery compartment cover.
6. Replace the printer cover.



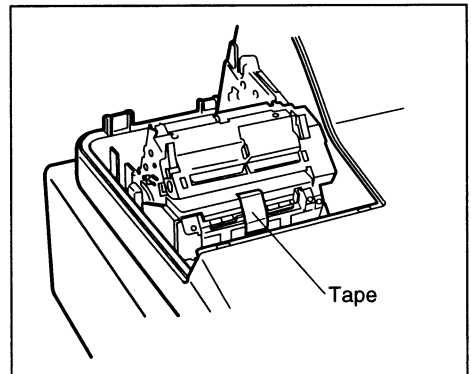
**Note**

Your cash register comes with a battery caution label. Please cut off the appropriate half and attach it to the battery compartment cover.

**4 Installing the paper roll and removing the adhesive tape from the ink roller**

Before using the cash register, be sure to install the receipt and journal paper rolls properly. For installing the receipt and journal paper rolls, follow the steps described in “4. Installing and removing the paper roll” under “OPERATOR MAINTENANCE.”

This machine comes with an ink roller taped. Remove the adhesive tape from the ink roller before using the machine.



# PROGRAMMING

This chapter illustrates how to program your cash register.

Before you start programming, turn the mode switch to the **PGM** position using the manager key (MA).

## Direct Programming

### 1 Setting the date, time, and consecutive number

#### Date

Enter the day (one or two digits), month (two digits), and year (two digits) in this sequence.

##### Procedure

XXXXXX → #/TM/ST  
Date (five or six digits)

##### Example

26 Aug., 1997

##### Key operation

260897 #/TM/ST

##### Print

```

01-01-00
26-08-97 ← Date
000-0001
      0-00
    
```

#### Time

Set the time using the 24-hour format. For example, when the time is set to 2:30 AM, enter 230; and when it is set to 2:30 PM, enter 1430. Once you set the time, the internal clock unit will continue to run as long as the built-in battery is alive and update the date (day, month, year) properly.

##### Procedure

XXXX → #/TM/ST  
Time (max. four digits)

##### Example

Setting the time as 2:30 PM (14:30)

##### Key operation

1430 #/TM/ST

##### Print

```

26-08-97
      14-30 ← Time
000-0002
      14-30
    
```



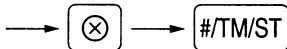
## ■ Consecutive number

The consecutive number is increased by one each time a receipt is issued.

Enter a number (one to four digits) that is one less than the desired starting number.

### Procedure

A number (one to four digits) that is one less than the desired starting number



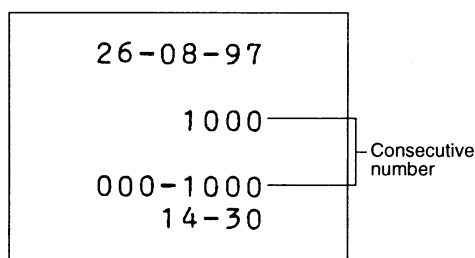
### Example

Setting the count start number as "1001"

#### Key operation

1000 ⊗ #/TM/ST

#### Print



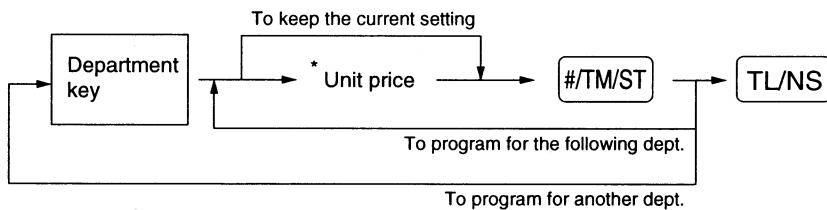
## 2 Programming for departments

Your machine is equipped with 5 standard departments and can be equipped with up to 30 departments.

Your machine allows you to perform the following programming for each department:

## ■ Unit price

### Procedure



\* Unit price: max. seven digits (99999.99)

**Note** You may enter a department code and press the **DEPT** key instead of pressing the actual department key.

### Example

Programming the unit price "10.00" for department 1

1. Press the department 1 key.

1

01 0.00

• The current unit price will be displayed.

2. Enter the unit price "1000."

1000

01 1000

3. Press the **#/TM/ST** key to program this setting.

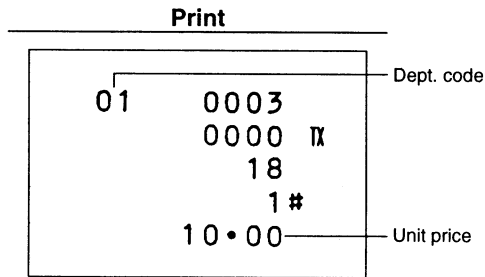
#/TM/ST

02 0.00

4. Press the **TL/NS** key to finalize the programming and generate a programming report.

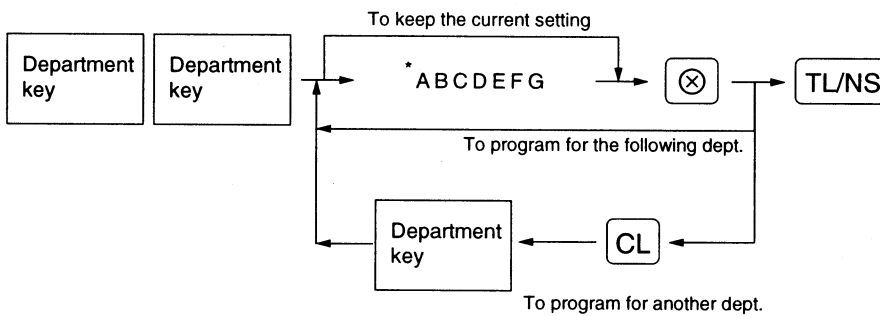
**TL/NS**

0 . 0 0



## ■ Functional selection

### Procedure



**Note** You may enter a department code and press the **DEPT** key twice instead of pressing the actual department key twice.

* Item	Selection	Entry
A VAT 4 or TAX 4	Non-taxable	0
	Taxable	1
B VAT 3 or TAX 3	Non-taxable	0
	Taxable	1
C VAT 2 or TAX 2	Non-taxable	0
	Taxable	1
D VAT 1 or TAX 1	Non-taxable	0
	Taxable	1
E Normal/SICS (Single Item Cash Sale)	Normal	0
	SICS	1
F Significant digit for HALO		1 through 9
G Number of zeros to follow the significant digit for HALO		0 through 8

### **Note** Tax status

- The tax system of your machine has been factory-set to automatic VAT1 - 4. If you desire to select any of automatic tax 1 - 4, manual VAT1 - 4, manual VAT1, manual tax 1 - 4, and the combination of the automatic VAT and the automatic tax 1 - 3, contact your dealer.
- When the combination of the automatic VAT and automatic tax 1 - 3 system is selected, one of the Tax 1(D), Tax 2(C) and Tax 3(B) can be selected in combination with VAT(A).  
Example: ABCD = 1001, 1010, 1100
- When an entry of a taxable department is made in a transaction, tax is automatically computed according to the associated tax rate.

**Normal department/SICS (Single Item Cash Sale)**

- If an entry of a department programmed for SICS is made first, the sale will be finalized as soon as the department key is pressed. If the entry is made after entering a department not programmed for SICS, the sale will not be finalized until the **TL/NS** key is pressed.

**HALO (High Amount Lockout)**

- You can set an upper limit amount (HALO) for each department. The limit is effective for the REG-mode operations and can be overridden in the MGR mode.
- FG is the same as  $F \times 10^G$ .

For example, presetting 14 (100.00) here means that amount entries of up to 100.00 are allowed in the REG mode. When you preset 18, however, the upper limit amount is 999999.99.

**Example**

Programming for department 4 as follows: A=0, B=0, C=0, D=1, E=0, F=9, and G=5.

1. Press the department 4 key twice.

**4** **4**

	A	B	C	D	E	F	G
0 4	0	0	0	0	0	1	8

- The current parameter setting will be displayed.

2. Set the parameters as follows:

- You can change the value at the blinker.

Go to the desired position with the following keys:

**.**.....Moves the blinker to the right.

0 4 0:0 0 0 0 1 8



0 4 0:0 0 0 0 1 8

**00**.....Moves the blinker to the left.

0 4 0:0 0 0 0 1 8



0 4 0:0 0 0 0 1 8

- Enter the figure.

0001095

0 4 0 0 0 1 0 9:5

3. Press the **⊗** key to program this setting.

**⊗**

0 5 0:0 0 0 0 1 8

4. Press the **TL/NS** key to finalize the programming and generate a programming report.

**TL/NS**

0 . 0 0

**Print**

04	0001	Normal dept.
	0001 TX	Taxable 1
	95	HALO limit
	1#	
	0.00	

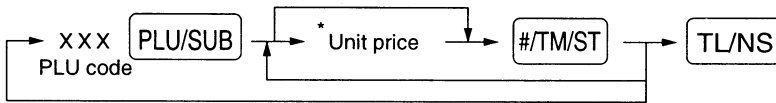


### 3 Price lookup (PLU) programming

This register can have a maximum of 500 PLUs.  
A PLU code can be up to three digits (free code).

#### Unit price

##### Procedure

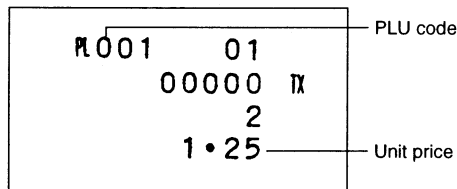


\*Unit price: max. seven digits (99999.99)

**Example** Programming the unit price "1.25" for PLU code 1

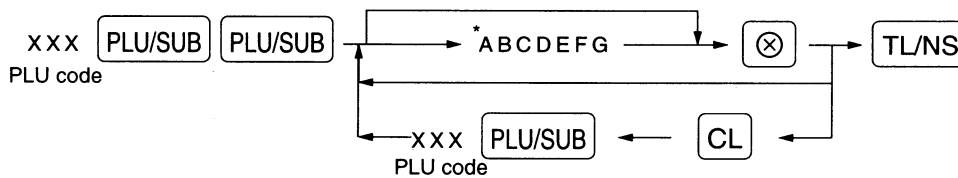
- |  |                  |                    |
|--|------------------|--------------------|
| 1. Enter the PLU code "1" and press the <b>PLU/SUB</b> key.                                  | 1 <b>PLU/SUB</b> | 0 0 1      0 . 0 0 |
| 2. Enter the unit price "125."   | 125              | 0 0 1      1 2 5   |
| 3. Press the <b>#/TM/ST</b> key to program this setting.                                     | <b>#/TM/ST</b>   | 0 0 2      0 . 0 0 |
| 4. Press the <b>TL/NS</b> key to finalize the programming and generate a programming report. | <b>TL/NS</b>     | 0 . 0 0            |

##### Print



#### Functional selection

##### Procedure



* Item		Selection	Entry
A	Sign (plus/minus)	Plus	0
		Minus	1
B	Always enter 0.		0
C	VAT 4 or TAX 4	Non-taxable	0
		Taxable	1
D	VAT 3 or TAX 3	Non-taxable	0
		Taxable	1
E	VAT 2 or TAX 2	Non-taxable	0
		Taxable	1
F	VAT 1 or TAX 1	Non-taxable	0
		Taxable	1
G	Mode	Prohibit mode	0
		Subdepartment mode	1
		PLU mode	2
		PLU/subdepartment mode	3
		Delete mode	4

**Note**

**Sign (plus/minus)**

The function of every PLU/subdepartment varies according to the combination of its sign and the sign of its associated department as follows:

Sign		Function of PLU/subdepartment
Department	PLU/ subdepartment	
+	+	Serves as a normal plus PLU/subdepartment
-	-	Serves as a normal minus PLU/subdepartment
+	-	Accepts store coupon entries, but not split-pricing entries
-	+	Not valid; not accepted

**Tax status**

- The tax system of your machine has been factory-set to automatic VAT1 - 4. If you desire to select any of automatic tax 1 - 4, manual VAT1 - 4, manual VAT1, manual tax 1 - 4, and the combination of the automatic VAT and the automatic tax 1 - 3, contact your dealer.
- When the combination of the automatic VAT and automatic tax 1 - 3 system is selected, one of the Tax 1(F), Tax 2(E) and Tax 3(D) can be selected in combination with VAT(C).  
Example: CDEF = 1001, 1010, 1100
- A PLU not programmed for any of these tax is registered depending on the tax status of the department which the PLU belongs to.

**Mode parameter**

- **PLU mode:** Allows a PLU entry to be made by entering an assigned PLU code and depressing the **[PLU/SUB]** key.
- **Subdepartment mode:** Allows a subdepartment entry to be made by entering a unit price, pressing the **[AMT]** key, entering assigned PLU code and then pressing the **[PLU/SUB]** key.
- **PLU/subdepartment mode:** Allows PLU entries to be made in both the PLU and subdepartment modes.
- **Delete mode:** Deletes data programmed for each PLU.
- **Prohibit mode:** Prohibits the entry of any assigned PLU code and clears no PLU/subdepartment program data.

**Example**

Programming for PLU code 1 as follows: A=0, B=0, C=0, D=0, E=0, F=1, and G=2.

- Enter the PLU code "1" and press the **PLU/SUB** key twice.
 

	A	B	C	D	E	F	G
P	0	0	0	0	0	0	2
- Set the parameters A to G.
 

P	0	0	0	0	0	1	2
---	---	---	---	---	---	---	---

• You can go to the desired position with the **00** or **.** key.
- Press the **⊗** key to program this setting.
 

P	0	0	0	0	0	0	2
---	---	---	---	---	---	---	---
- Press the **TL/NS** key to finalize the programming and generate a programming report.
 

	0	.	0	0
--	---	---	---	---

**Print**

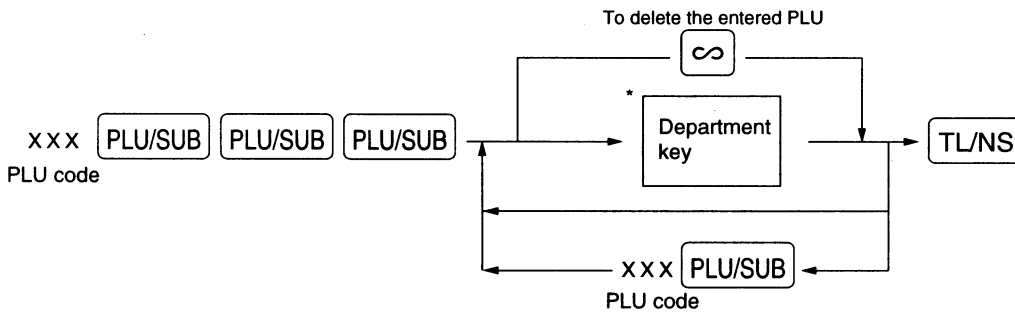
```

R.001    01
      00001 TX
          2
        1.25
    
```

Taxable 1  
PLU mode

**PLU assignment to departments**

**Procedure**



\*Department key to be associated with the entered PLU

**Note**

- You may enter a department code and press the **DEPT** key instead of pressing the actual department key.
- The following functions of the PLU depend on the programming for its associated department:
  - Grouping (group 1 through 12)
  - SICS (Single item cash sale)/Normal
  - Item validation print compulsory/non-compulsory
  - HALO

**Example**

Assigning PLU codes 1 and 2 to department 2

- Enter the PLU code "1" and press the **PLU/SUB** key three times.
 

0	0	1		0	1
---	---	---	--	---	---
- Press the the department 2 key to assign PLU code 1 to department 2.
 

0	0	2		0	1
---	---	---	--	---	---

3. Press the department 2 key to assign  
PLU code 2 to department 2.

2

0 0 3      0 1

4. Press the **TL/NS** key to finalize the programming  
and generate a programming report.

TL/NS

0 . 0 0

**Print**

```

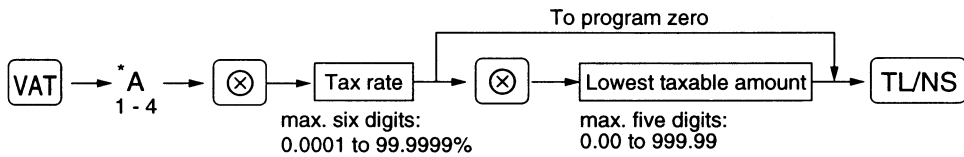
M.001  02
      00001 TX
        2
      1.25
M.002  02
      00000 TX
        2
      0.00
  
```

Associated  
dept.

**4 Programming the tax rate**

**Tax rate**

**Procedure**



\*A: Enter a corresponding tax rate number. For example, when you program a tax rate as tax rate 1, enter "1"; and when you program it as tax rate 4, enter "4."

**Note**

- The lowest taxable amount is valid only when you select add on tax system. If you select VAT (Value added tax) system, it is invalid.
- If you make an incorrect entry before pressing the second **⊗** key in programming a tax rate, cancel it with the **CL** key; and if you make an error after pressing the second **⊗** key, cancel it with the **#/TM/ST** key. Then program again from the beginning.

**Example**

Programming the tax rate 4% as tax rate 2 with lowest taxable amount as 0.12

1. Press the **VAT** key.

VAT

P      0 . 0 0

2. Enter the tax rate "2."

2 ⊗

P      0 . 0 0

3. Enter the tax rate "4%."

40000 ⊗

P      4 0 0 0 0

4. Enter the lowest taxable amount "12."

12

P      1 2

5. Press the **TL/NS** key to finalize the programming and generate a programming report.

**TL/NS**

0 . 0 0

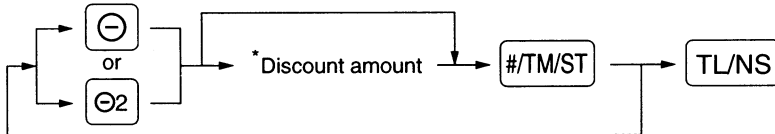
Print

TX 2	Tax rate 2
4 • 0000	Tax rate : 4%
0 • 12	Lowest taxable amount

## 5 Programming for discount keys

### Discount amount (⊖)

#### Procedure



\*Discount amount: 0 - 9999999

**Example** Assigning "10.00" to the ⊖ key

1. Press the ⊖ key.

⊖

0 1 0 . 0 0

2. Enter the discount amount "1000."

1000

0 1 1 0 0 0

3. Press the #/TM/ST key to program this setting.

#/TM/ST

0 1 1 0 . 0 0

4. Press the **TL/NS** key to finalize the programming and generate a programming report.

**TL/NS**

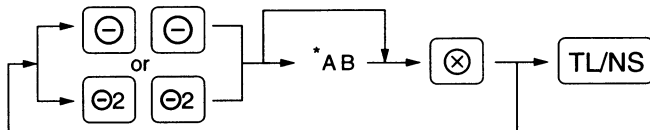
0 . 0 0

Print

-10 • 00	⊖ 1	Discount amount
18		

### High amount lockout (HALO) (⊗)

#### Procedure



\* AB is the same as  $A \times 10^B$ .

A: Significant digit (1 through 9)

B: Number of zeros to follow the significant digit (0 through 8)

For example, presetting 14 (100.00) here means that amount entries of up to 100.00 are allowed in the REG mode. When you preset 18, however, the upper limit amount is 999999.99

**Example**

Programming for the  $\ominus$  key as follows: A=1 and B=3.

1. Press the  $\ominus$  key twice.

$\ominus$   $\ominus$

		A B
0 1	1 8	

2. Set the parameters A and B.

13

0 1	1 3
-----	-----

•You can go to the desired position with the  $\square 00$  or  $\square \cdot$  key.

3. Press the  $\otimes$  key to program this setting.

$\otimes$

0 1	1 3
-----	-----

4. Press the  $\square TL/NS$  key to finalize the programming and generate a programming report.

$\square TL/NS$

	0 . 0 0
--	---------

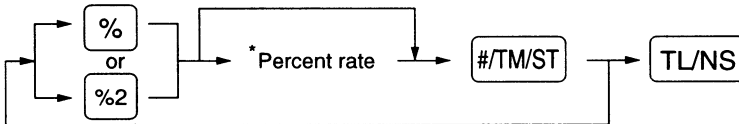
Print

<p><math>-10.00 \ominus 1</math> 13</p>	<p>HALO limit</p>
---	-------------------

## 6 Programming for percent keys

### ■ Percent rate ( $\square \%$ )

**Procedure**



\* Percent rate: 0.00 - 100.00

**Example**

Assigning 10.25% to the  $\square \%$  key

Key operation

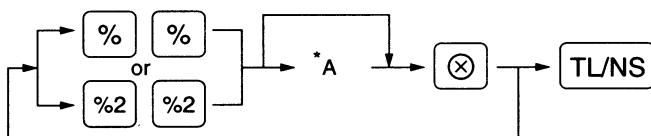
$\square \%$  1025  $\square \# / TM / ST$   
 $\square TL / NS$

Print

<p><math>-10.25 \%</math> 1</p>	<p>Percent rate</p>
---------------------------------	---------------------

### ■ Sign (+/-) ( $\square \%$ )

**Procedure**



\* A : Sign +/- = 0/1

**Example**

Programming minus sign for the  $\square \%$  key.

Key operation

$\square \%$   $\square \%$  1  $\otimes$   
 $\square TL / NS$

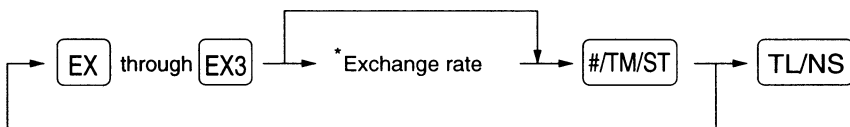
Print

<p><math>-10.25 \%</math> 1</p>	<p>Discount</p>
---------------------------------	-----------------

## 7 Programming for the **EX** key

### ■ Currency exchange rate (**EX**)

#### Procedure



\* Currency exchange rate: 0.0000 - 9999.9999

#### Example

Assigning 0.6068 to the **EX** key

#### Key operation

**EX** 6068 **#/TM/ST**  
**TL/NS**

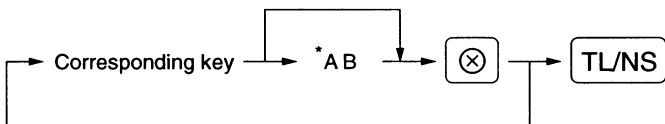
#### Print

0.6068 **EX 1** — Exchange rate

## 8 Programming for the **CA2**, **RA**, **PO**, **CR**, and **CH** keys

### ■ High amount lockout (HALO) (**CA2**, **RA**, **PO**, **CR**, and **CH**)

#### Procedure



\* AB is the same as  $A \times 10^B$

A: Significant digit (1 through 9)

B: Number of zeros to follow the significant digit (0 through 8)

#### Example

Programming a HALO limit of 1000.00 (15) for the **CR2** key

#### Key operation

**CR2** 15 **⊗**  
**TL/NS**

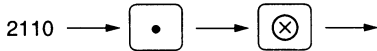
#### Print

15 **CR 2** — HALO limit  
00000000

# Job-Code-Based Programming

This section illustrates how to program items using job codes. Using job codes allows you to program a wide variety of items.

Start this programming by entering a corresponding job code as shown below.



All the items which can be programmed by the job-code-based programming are listed on this page and the following, and those which can also be programmed by the direct programming are marked with the symbol “**Direct**” that follows job codes.

## 1 Setting the date and time

### ■ Date **2610** **Direct**

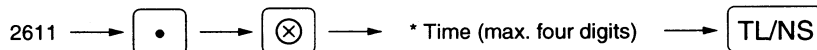
#### Procedure



\* Date: Enter the day, month, and year in this order.

### ■ Time **2611** **Direct**

#### Procedure



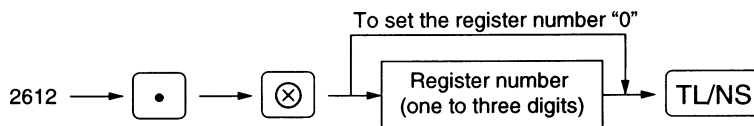
\* Time: Enter the hour, and minute in this order.

## 2 Setting the register and consecutive numbers

### ■ Register number **2612**

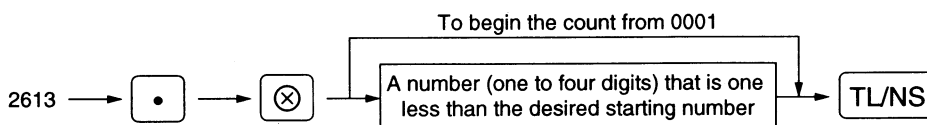
When your store has two or more registers, it is practical to set unique register numbers for their identification.

#### Procedure



### ■ Consecutive number **2613** **Direct**

#### Procedure

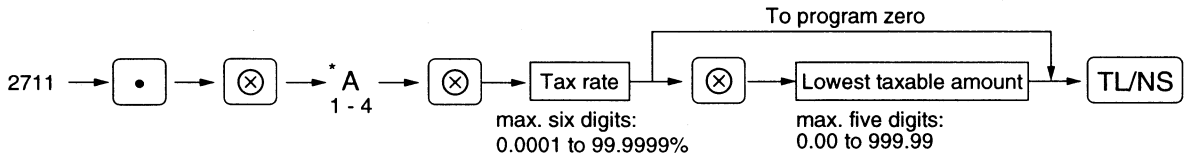




### 3 Programming the tax rate

#### ■ Tax rate 2711 Direct

##### Procedure



\*A: Enter a corresponding tax rate number. For example, when you program a tax rate as tax rate 1, enter "1"; and when you program it as tax rate 4, enter "4."

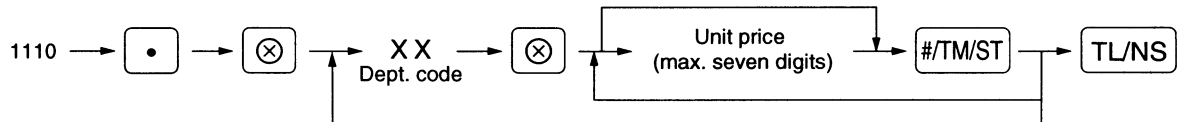
##### Note

- The lowest taxable amount is valid only when you select add on tax system. If you select VAT (Value added tax) system, it is invalid.
- If you make an incorrect entry before pressing the third (⊗) key in programming a tax rate, cancel it with the (CL) key; and if you make an error after pressing the third (⊗) key, cancel it with the (#/TM/ST) key. Then program again from the beginning.

### 4 Programming for departments

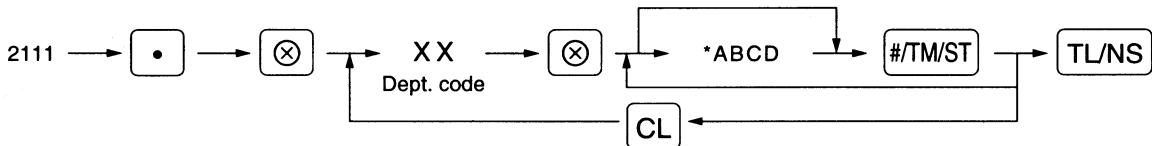
#### ■ Unit price 1110 Direct

##### Procedure



#### ■ Tax status 2111 Direct

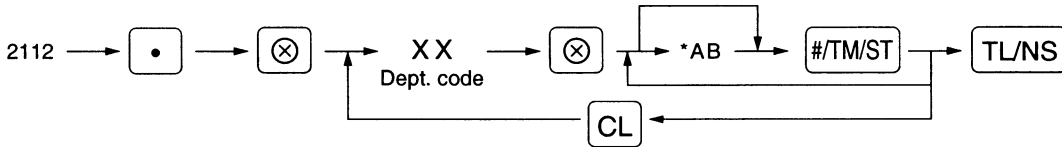
##### Procedure



* Item		Selection	Entry
A	VAT 4 or TAX 4	Non-taxable	0
		Taxable	1
B	VAT 3 or TAX 3	Non-taxable	0
		Taxable	1
C	VAT 2 or TAX 2	Non-taxable	0
		Taxable	1
D	VAT 1 or TAX 1	Non-taxable	0
		Taxable	1

**Note**

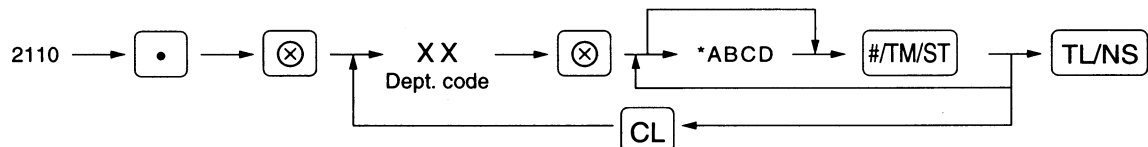
- The tax system of your machine has been factory-set to automatic VAT1 - 4. If you desire to select any of automatic tax 1 - 4, manual VAT1 - 4, manual VAT1, manual tax 1 - 4, and the combination of the automatic VAT and the automatic tax 1 - 3, contact your dealer.
- When the combination of the automatic VAT and automatic tax 1 - 3 system is selected, one of the Tax 1(D), Tax 2(C) and Tax 3(B) can be selected in combination with VAT(A).  
Example: ABCD = 1001, 1010, 1100

**Limit amount (HALO) 2112 Direct****Procedure**

\* AB is the same as  $A \times 10^B$ .

A: Significant digit (1 through 9)

B: Number of zeros to follow the significant digit (0 through 8)

**Functional selection 2110****Procedure**

* Item	Selection	Entry
A Item validation print	Compulsory	1
	Non-compulsory	0
B SICS (Single item cash sale)/Normal	SICS	1
	Normal	0
C Always enter 0.		0
D Type of unit price entry	Open and preset	3
	Preset only	2
	Open only	1
	Inhibit department key	0

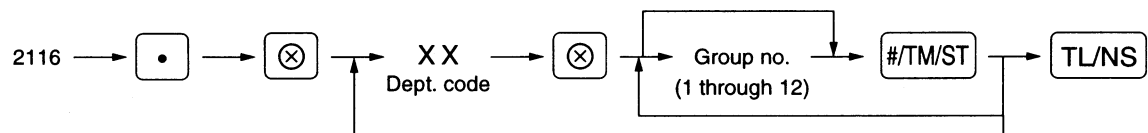
**Note****Item validation print**

If item entries must be validated, program corresponding departments for compulsory item validation print.

**SICS (Single item cash sale) / Normal department Direct**

**Group number 2116**

You can assign departments to a maximum of 12 groups (1 through 12). Assign desired departments to any of the groups. This programming enables you to take group sales reports.

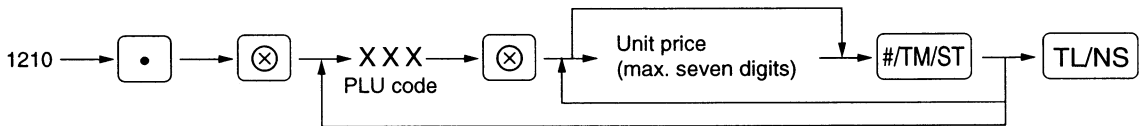
**Procedure**

\* Group number: Dept. (+) 1 through 9 (groups 1 through 9)  
 Dept. (-) 10  
 Hash (+) dept. 11  
 Hash (-) dept. 12

## 5 Price lookup (PLU) programming

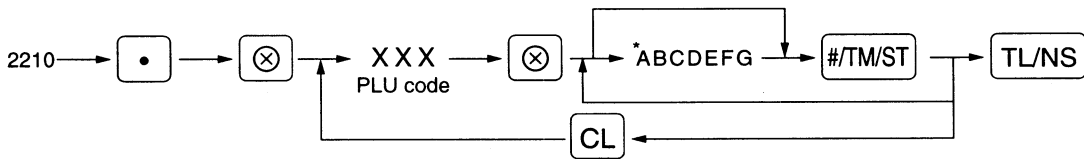
### Unit price 1210 Direct

#### Procedure



### Functional selection 2210 Direct

#### Procedure



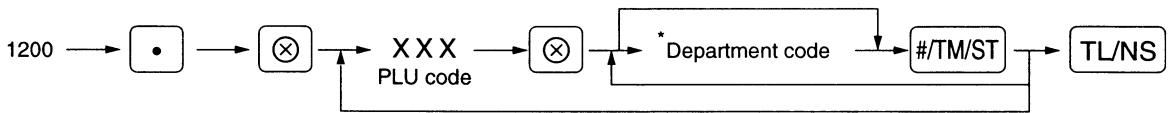
* Item	Selection	Entry
A Sign (plus/minus)	Plus	0
	Minus	1
B Always enter 0.		0
C VAT 4 or TAX 4	Non-taxable	0
	Taxable	1
D VAT 3 or TAX 3	Non-taxable	0
	Taxable	1
E VAT 2 or TAX 2	Non-taxable	0
	Taxable	1
F VAT 1 or TAX 1	Non-taxable	0
	Taxable	1
G Mode	Prohibit mode	0
	Subdepartment mode	1
	PLU mode	2
	PLU/subdepartment mode	3
	Delete mode	4

#### Note

- The tax system of your machine has been factory-set to automatic VAT1 - 4. If you desire to select any of automatic tax 1 - 4, manual VAT1 - 4, manual VAT1, manual tax 1 - 4, and the combination of the automatic VAT and the automatic tax 1 - 3, contact your dealer.
- When the combination of the automatic VAT and automatic tax 1 - 3 system is selected, one of the Tax 1(F), Tax 2(E) and Tax 3(D) can be selected in combination with VAT(C).  
 Example: CDEF = 1001, 1010, 1100
- A PLU not programmed for any of these tax is registered depending on the tax status of the department which the PLU belongs to.

## ■ PLU assignment to departments **1200** **Direct**

### Procedure

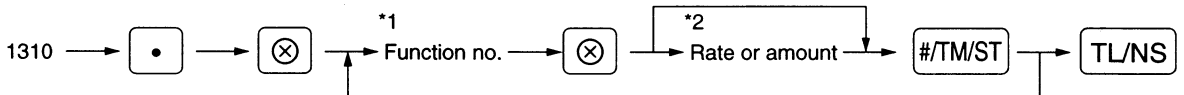


\* Department code to be associated with the entered PLU

## 6 Programming for miscellaneous keys

### ■ Rate and deduction amount (% , EX , and ⊖) **1310** **Direct**

#### Procedure



\*1: Function no.

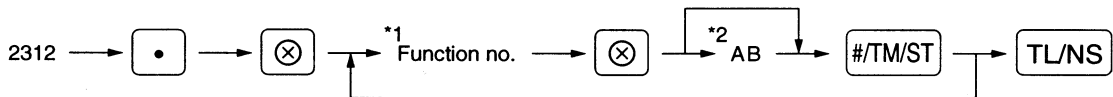
- |                   |                    |
|-------------------|--------------------|
| 1: For the ⊖ key  | 5: For the EX key  |
| 2: For the ⊖2 key | 6: For the EX2 key |
| 3: For the % key  | 7: For the EX3 key |
| 4: For the %2 key |                    |

\*2: Rate or amount

- 0 — 9999999 (Deduction amount)  
 0.00 — 100.00 (Percent rate)  
 0.0000 — 9999.9999 (Currency exchange rate)

### ■ Limit amount (HALO) (⊖, RA, and PO) **2312** **Direct**

#### Procedure



\*1: Function no.

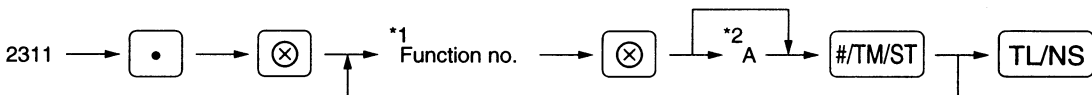
- |                   |                    |
|-------------------|--------------------|
| 1: For the ⊖ key  | 9: For the RA key  |
| 2: For the ⊖2 key | 10: For the PO key |

\*2: AB is the same as  $A \times 10^B$ .

- A: Significant digit (0 through 9)  
 B: Number of zeros to follow the significant digit (0 through 8)

### ■ Sign (+/-) (% ) **2311** **Direct**

#### Procedure



\*1: Function no.

- |                  |                   |
|------------------|-------------------|
| 3: For the % key | 4: For the %2 key |
|------------------|-------------------|

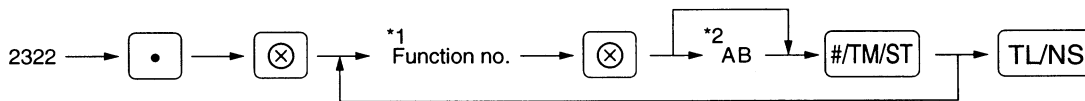
\*2:

- A : Sign +/- = 0/1

## 7 Programming for the media keys

### High amount lockout (HALO) for media keys **2322** **Direct**

#### Procedure



\*1: Function no.

12: For the **CA2** key

13: For the **CH** key

14: For the **CH2** key

15: For the **CH3** key

16: For the **CH4** key

17: For the **CR** key

18: For the **CR2** key

\*2: AB is the same as  $A \times 10^B$ .

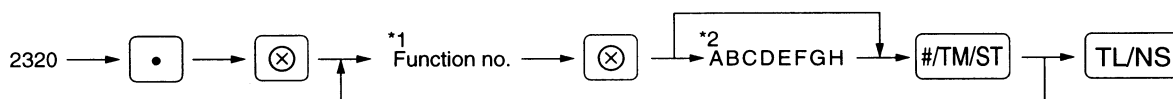
A: Significant digit (1 through 9)

B: Number of zeros to follow the significant digit (0 through 8)

You can set up  $AB = 18$  for no limitation.

### Functional selection **2320**

#### Procedure



\*1: Function no.

11: For the **TL/NS** key

12: For the **CA2** key

13: For the **CH** key

14: For the **CH2** key

15: For the **CH3** key

16: For the **CH4** key

17: For the **CR** key

18: For the **CR2** key

*2: Item	Selection	Entry
<b>A</b> Change (Over-tender)	Disable	1
	Enable	0
<b>B</b> Validation print	Compulsory	1
	Non-compulsory	0
<b>C to G</b> Always enter 0.		0
<b>H</b> Amount tendered	Compulsory	1
	Non-compulsory for the TL/NS, CA2, or CH to CH4 keys	0
	Inhibited for the CR and CR2 keys	0

#### Note

#### Change (over-tender)

Either change enable or disable can be selected for the **CH** through **CH4**, **CR** or **CR2** key.

#### Validation print

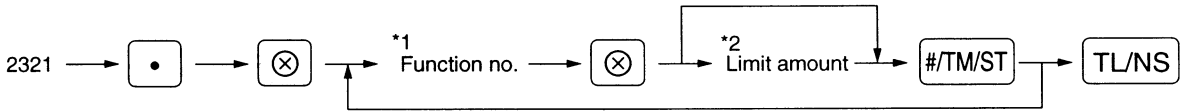
If media entries must be validated, program the corresponding media for compulsory validation print.

#### Amount tendered

You may select amount tendered compulsory or non-compulsory for the **TL/NS**, **CA2**, and **CH** through **CH4** keys. You may select amount tendered compulsory or inhibited for the **CR** and **CR2** keys.

## ■ High amount lockout (HALO) for cheque cashing, cash in drawer, and cheque change **2321**

### Procedure



\*1: Function no.

19: For cash in drawer (Sentinel)

20: For cheque cashing

21: For cheque change

\*2: Limit amount

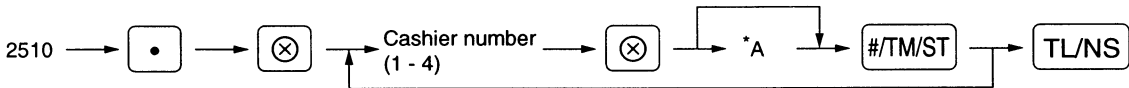
0 through 999999.99 (Cheque change and cheque cashing)

0 through 9999999.99 (Cash in drawer)

## 8 Cashier programming

### ■ Assigning cashiers to drawers **2510**

#### Procedure



\*A 0: No drawer

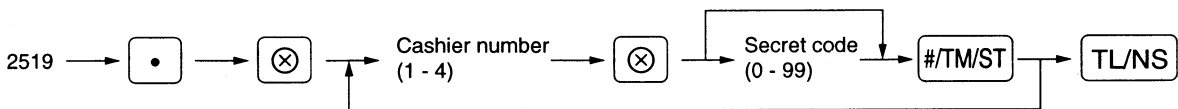
1: Drawer no. 1

2: Drawer no. 2 (Ask your dealer for the necessary options.)

### ■ Secret codes for cashiers **2519**

You can assign a cashier secret code to each of four cashiers.

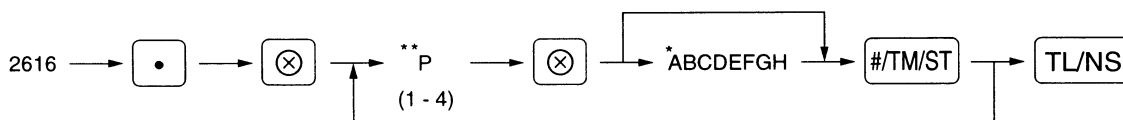
#### Procedure



## 9 Programming various functions

### Optional feature selection **2616**

#### Procedure



\*\*P: 1

* Item	Selection	Entry	
A	OP X/Z report	Enable	0
		Disable	1
B and C	Always enter 0.		0
D	Refund in the REG-mode	Enable	0
		Disable	1
E	Direct void in the REG-mode	Enable	0
		Disable	1
F	Indirect void in the REG-mode	Enable	0
		Disable	1
G	Subtotal void in the REG-mode	Enable	0
		Disable	1
H	Always enter 0.		0

#### Note

#### OP X/Z report

This programming determines whether a cashier is allowed to take cashier X and Z reports in the OP X/Z mode. You can take cashier X and Z reports in the X1/Z1 mode regardless of the above programming.

\*\*P: 2

* Item	Selection	Entry	
A	First item direct void availability	Enable	0
		Disable	1
B and C	Always enter 0.		0
D	Printing of the number of purchased items	No	0
		Yes	1
E	Always enter 0.		0
F	Journal print form	Detailed	0
		Limited	1
G and H	Always enter 0.		0

#### Note

#### Journal print form

- Detailed journal print that shows the details of all entries - the same information as printed on the receipt.
- Limited journal print that shows information about all entries other than normal department entries (entries into "plus" departments and their associated "plus" PLUs).

\*\*P: 3

* Item	Selection	Entry	
A	Flash report in OP X/Z mode	Yes	0
		No	1
B	Always enter 0.		0
C	Zero skip in cashier report	Yes	0
		No	1
D	Zero skip in transaction report	Yes	0
		No	1
E	Zero skip in department report	Yes	0
		No	1
F	Zero skip in PLU report	Yes	0
		No	1
G	Zero skip in hourly report	Yes	0
		No	1
H	Zero skip in daily net report	Yes	0
		No	1

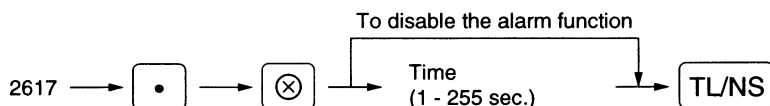
\*\*P: 4

* Item	Selection	Entry	
A and B	Always enter 0.	0	
C	VAT/TAX amount printing on the receipt/journal	Yes	0
		No	1
D	Taxable amount printing on the receipt/journal	Yes	0
		No	1
E	Net amount printing on the receipt/journal	Yes	0
		No	1
F to H	Always enter 0.	0	




## ■ Alarm length of time with drawer opening **2617**

If the drawer still remains open when a specified length of time has elapsed, your machine gives the alarm.

### Procedure



### Note

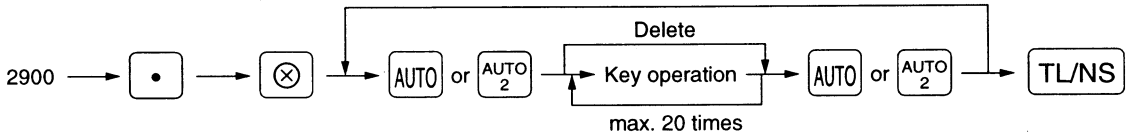
Your machine starts to monitor how long the drawer is kept open the moment the drawer is opened at the end of a transaction in the REG/  mode. It stops the monitoring when a valid key (except the  and  keys) is pressed for the next transaction. It restarts the time monitoring after that transaction is ended. You can stop the buzzer alarm by closing the drawer. No key entries can be made while the buzzer is sounding.

## ■ AUTO keys **2900**

If you program frequently performed key operations for the AUTO keys, you can enter those key operations simply by pressing the corresponding AUTO keys in key operations. This programming can be done when your machine is in the **X2/Z2** mode.



**Procedure**



**Note**

Only those key operations that are valid in the OP X/Z, REG, MGR, , X1/Z1 and X2/Z2 modes must be programmed. If you press the key which has been programmed with invalid key operations, an entry error will result.

**Example**

Programming for the and keys as follows:

; entering a PLU 2 item (unit price: 1.50) and a dept. 2 item (unit price: 1.00)

; selling a dept. 1 item (programmed unit price: 5.00) in cash

Key operation	Print
2900 AUTO1 → 2  100 setting AUTO2 → 1 setting 	<pre>           1 #           01    03           02    18           03    02           04    11           05    102           2 #           01    101           02    16           </pre>

**Key reference list**

The numbers at the left side of the receipt show the order in which the corresponding key will be registered. The numbers at the right side show the corresponding key numbers. Each key has a corresponding key number as shown below:

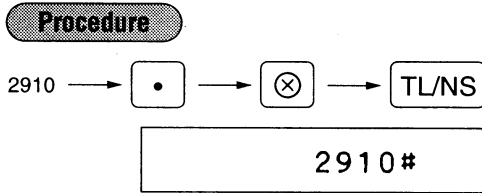
Keys:	Nos.:	Keys:	Nos.:	Keys:	Nos.:	Keys:	Nos.:
0 key	1		12		26		42
1 key	2		13		27		43
2 key	3		14		28		44
3 key	4		15		29		45
4 key	5		16		30		46
5 key	6		17		33		47
6 key	7		18		34	Dept. 1 key	101
7 key	8		19		35	Dept. 2 key	102
8 key	9		20		36	:	:
9 key	10		21		37	:	:
00 key	11		22		38	Dept. 30 key	130
			23		39		
			24		40		
			25		41		

## 10 Activating and deactivating the TRAINING mode

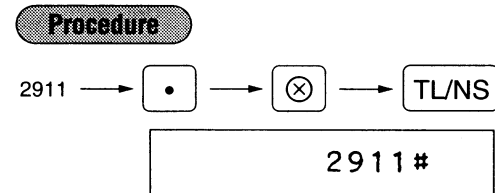
You will use the TRAINING mode if you need to train someone in register operations without any change in register's memory. Reports are not available. When the training is completed, cancel this mode and thus put your machine back into the normal mode of operation.

### ■ TRAINING-mode activation/deactivation

For activation



For deactivation



### ■ TRAINING-mode operations

- Practice entries are allowed only when the mode switch is in the REG position or the MGR position.
- In order to identify training entries from actual ones, your register prints "TR" on the receipt and journal.
- These entries do not affect any totalizers or counters except the training GT.
- The consecutive number is increased by one each time a receipt is published.

## 11 Reading stored programs

Your machine allows you to read every program stored in the PGM mode.

### ■ Program details and procedures for their reading

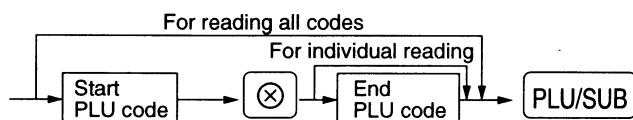
Program for:	Procedure	Related job codes
1 Departments	<p>For reading all codes</p> <p>→ 1100 → [⊗] → Start dept. code → [⊗] → End dept. code → TL/NS</p> <p>For individual reading</p>	1110, 2110, 2111, 2112, 2116
2 PLUs/ subdepartments	<p>For reading all codes</p> <p>→ 1200 → [⊗] → Start PLU code → [⊗] → End PLU code → TL/NS</p> <p>For individual reading</p>	1200, 1210, 2210
3 Function preset	→ 1300 → [⊗] → TL/NS	1310, 2311, 2312, 2320, 2321, 2322, 2510, 2519, 2616, 2617
4 Tax rates	→ 2700 → [⊗] → TL/NS	2711
5 Auto keys	→ 2900 → [⊗] → TL/NS	2900

You can also read the program in the following procedure:

Departments, function preset,  
and tax rates

TL/NS

PLUs/subdepartments



# Sample printouts

## 1 Departments

01	0003	Dept. code
	0000 TX	Tax status
	18	HALO limit
	1 #	Group no.
	10.00	Unit price
02	0003	Function programming
	0001 TX	
	18	
	1 #	
	23.00	

05	0001	
	0000 TX	
	18	
	10 #	
	-0.00	Minus dept.

## 2 PLUs/subdepartments

PL001	02	PLU code
	00001 TX	Associated dept. code
	2	Tax status
	1.25	Mode parameter
		Unit price
PL002	02	
	00000 TX	
	2	
	11.50	

PL020	01	
	00000 TX	
	2	
	-0.00	Coupon PLU

## 3 Function preset

-10.00	e 1	Discount amount
13		HALO for ⊖ key
-0.00	e 2	
18		
-10.25	% 1	Percent rate
-0.00	% 2	
0.6068	EX 1	Minus sign
0.0000	EX 2	Exchange rate
0.0000	EX 3	
18	◀	
18	▶	
00000000	CA	
18	CH 1	
00000000		Functional programming for CH key
18	CH 2	
00000000		
18	CH 3	
00000000		
18	CH 4	
00000000		
18	CR 1	
00000000		
15	CR 2	
00000000		
99.99	CH	HALO for cheque cashing
999999.99	CH →	HALO for cheque change
9		
999999.99		HALO for CID
2616 #		Optional feature
1		
00000000		

4		
00000000		Drawer open alarm time
2617 #		
30		Cashier number
1 1 28		Drawer no./secret code
2 1 00		
3 1 00		
4 1 00		

#### 4 Tax rates

		TX 1	
3•0000	—		Tax rate
0•10	—		Lowest taxable amount
		TX 2	
4•0000			
0•12			
		TX 3	
4•0000			
0•15			
		TX 4	
2•0000			
0•11			

#### 5 Auto keys

		1 #	AUTO1 key
01	03		Key no.
02	18		
03	02		
04	11		
05	102		
06	••		
07	••		Unused step
08	••		
19	••		
20	••		
		2 #	AUTO2 key
01	101		
02	16		
03	••		
19	••		
20	••		

# READING (X) AND RESETTING (Z) OF SALES TOTALS

- Use the reading function (X) when you need to take a reading of sales information entered since the last resetting. You can take this reading any number of times. It does not affect the register's memory.
- Use the resetting function (Z) when you need to clear the register's memory. Resetting prints all sales information and clears the entire memory except for the GT1 through GT3, reset count, and consecutive number.

## 1 Summary of reading (X) and resetting (Z) reports and the key operations to obtain the reports

**X1 and Z1 reports:** Daily sales reports

**X2 and Z2 reports:** Periodic (monthly) consolidation reports

Item	Mode switch position		Key operation
	X1/Z1	X2/Z2	
Full report	X1, Z1	X2, Z2	
Hourly report	X1, Z1		
Full department report	X1	X2	
Individual group report	X1	X2	Group no. →
PLU report	X1, Z1	X2, Z2	
PLU report by associated dept.	X1	X2	Department key or Department code →
Transaction report	X1	X2	
Individual cashier report	X1, Z1		<p>When a secret code is not assigned</p>
	<OP X/Z> X, Z		<p>When a secret code is not assigned</p>
Full cashier report	X1, Z1		<p>When a secret code is not assigned</p>
Daily net total report		X2, Z2	

**Note**

- To take cashier reports, the corresponding cashier must be assigned (sign-on). For more information about the cashier assignment, see "1. Preparations for entries" under the "PRIOR TO ENTRIES."
- After taking the cashier Z report, the cashier assignment will be automatically canceled (sign-off).

**Flash reports (OP X/Z mode)**

Your machine can display the total amount (flash report) without printing out the report. To take the flash report, do the following in the OP X/Z mode.

Sales total	<input type="button" value="TL/NS"/>		
Individual department total amount	Department key	or	Department code → <input type="button" value="DEPT"/>
Department group total amount	Group no. →		<input type="button" value="CR"/>
Cash in drawer	<input type="button" value="⊗"/>		
Hourly sales total	Time (two digits) →		<input type="button" value="#/TM/ST"/>

**Note**

To clear the display, press the  key.

## 2 Daily sales totals

### Full report

	0001Z 1	Reset symbol
		Reset counter
GT *00000	1	Net grand total (GT2 - GT3)
000879.93		
GT *00000	2	Grand total of plus registration (GT2)
001205.49		
GT -00000	3	Grand total of minus registration (GT3)
000325.56		
GT *00000 TR		Grand total of training mode registration
000002.00		
02		Dept. code
32.50Q		Sales q'ty
*210.28		Sales amount
23.33 %		Ratio of dept. 1 sales amount to "+" dept. total
1#		
32.50Q		Group no.
*210.28		
23.33 %		Ratio of dept. group 1 sales amount to "+" dept. total

	9#	
24.00Q		
*286.05		
31.74 %		
- - - -		
107.75Q		"+" dept. counter and total
*901.29+ TL		
100.00 %		
03		
3.00Q		
-13.00		
- - - -		
3.00Q		"- " dept. counter and total
-13.00- TL		
04		
2.00Q		
*7.50		
- - - -		
2.00Q		"+" hash dept. counter and total
*7.50+* TL		

05		
1.00Q		
-1.00		
- - - -		
1.00Q		"- " hash dept. counter and total
-1.00-* TL		
1Q		Subtotal ⊖ counter and total
-5.00 ⊖ 1		
1Q		
-1.00 ⊖ 2		Subtotal % counter and total
1Q		
-1.01 % 1		
1Q		
-1.35 % 2		
*879.93 ST		Net sales total
	VT 1	
*10.00 TX ST		Net taxable 1 total
*0.29 TX		VAT 1 total
	VT 2	
*67.60 TX ST		
*2.60 TX		
	VT 3	
*49.75 TX ST		
*1.91 TX		
	VT 4	
*35.15 TX ST		
*0.69 TX		
		Tax total
*5.49 TX TL		
*879.93 ST		Net sales total without VAT
2Q		Item ⊖ counter and total
-5.75 ⊖ 1		
2Q		
-9.50 ⊖ 2		Item percent counter and total
1Q		
-3.00 % 1		
6Q		
-3.67 % 2		

To be continued on the next page

**Note**

On the X report, only the read symbol "X1" is printed on the part (A).

PL 1Q  
 -2.00 0  
 10Q  
 \*159.26 RF  
 10Q  
 \*72.21 un 1  
 6Q  
 \*47.23 un 2  
 4Q  
 \*49.73 un 3  
 1Q  
 \*16.10 un 4  
 1Q  
 \*3.00 RF \*  
 1Q  
 \*2.00 un \*  
  
 7Q  
 4 NS  
 69Q  
 \*886.43 TL  
  
 1Q  
 \*48.00 ◀  
 1Q  
 \*30.00 ▶  
 1Q  
 \*30.00 CH  
  
 63Q  
 \*753.93 CA  
 1Q  
 \*2.50 CA 2  
 3Q  
 \*30.15 CH 1  
 1Q

Coupon-like PLU counter and total  
 Refund counter and total  
 Direct + indirect void counter and total  
 VOID-mode item counter and total  
 VOID-mode transaction counter and total  
 Subtotal void counter and total  
 Hash refund counter and total  
 Hash void counter and total  
 Validation print counter  
 No-sale (exchange) counter  
 Customer counter  
 Sales total (including hash dept. total)  
 Received on account counter and total  
 Paid out counter and total  
 Cheque cashing counter and total  
 Cash counter and total  
 Cash 2 counter and total  
 Cheque sale counter and total

\*536.00 CA TL  
 \*75.15 CH TL  
 \*611.15 TL  
 \*2.65 CH →

Cash in drawer  
 Cheque in drawer  
 Cash + cheque in drawer  
 Cash change total for cheque tendering

\*15.00 CH 4  
 1Q  
 \*32.50 CR 1  
 2Q  
 \*55.00 CR 2  
 2Q  
 103.64 EX 1  
 1Q  
 23.47 EX 2  
 1Q  
 7.29 EX 4

Credit sales and tendering counter and total  
 Currency exchange 1 counter and total



## Hourly report

Z 1	
10-00	Time
13Q	Customer counter
*221.00	Sales total
11-00	
21Q	
*357.00	

21-00	
18Q	
*306.00	

## Full department report

X 1	
02	
32.50Q	
*210.28	
23.73 %	
1#	Group no.
32.50Q	} Group 1 sales q'ty and total
*210.28	
23.73 %	} Ratio of dept. group 1 sales amount to "+" dept. total

9#	
24.00Q	
*286.05	
32.27 %	
- - - -	
106.75Q	
*886.29+ π	
100.00 %	

03	
3.00Q	
-13.00	
- - - -	
3.00Q	
-13.00- π	

04	
2.00Q	
*7.50	
- - - -	
2.00Q	
*7.50+*π	

05	
1.00Q	
-1.00	
- - - -	
1.00Q	
-1.00-*π	

**Note** On the X report, "X1" is printed instead of the reset symbol "Z1."

## ■ Individual group report

```

                                X 1
02
  32.50Q
 *210.28
    1#
  32.50Q
 *210.28
  
```

} Group 1 sales q'ty and total

## ■ PLU report by associated department

```

                                X 1
07----- Associated dept. code
PL001
   1.00Q
 *27.00
PL010
   3.00Q
 *34.15
  
```

} Sales q'ty and total

## ■ PLU report

```

                                Z 1
PL001----- PLU code
   1.00Q
 *27.00
PL002
   5.00Q
 *28.75
  
```

} Sales q'ty and total

```

PL010
   3.00Q
 *34.15
  
```

## ■ Transaction report

```

                                X 1
- - - - -
  107.75Q
 *901.29+ π
  100.00 %
- - - - -
   3.00Q
 -13.00- π
- - - - -
   2.00Q
 *7.50+*π
- - - - -
   1.00Q
 -1.00-*π
  
```

**Note**

On the X report, "X1" is printed instead of the reset symbol "Z1."

In this report, the same transaction data as those printed in the full report are printed.

## Individual cashier report

Z 1		
# 1		Cashier number
69 Q		Customer counter
* 886.43	TL	Sales total
* 74.21 un	1	Item void total
* 16.10 un	4	Subtotal void total
* 536.00	CA TL	Cash in drawer
* 75.15	CH TL	Cheque in drawer
* 611.15	TL	Cash + cheque in drawer
* 2.65	CH →	Cash change total for cheque tendering

**Note**

- On the X report, "X1" is printed instead of the reset symbol "Z1."
- When you take these reports in the OP X/Z mode, the X report shows the symbol "X," and the Z report, "Z."

## Full cashier report

Z 1



The subsequent printout occurs in the same format as in the individual cashier report.

**Note**

On the X report, "X1" is printed instead of the reset symbol "Z1."

## 3 Periodic consolidation

### Full report

0002 Z 1	Reset symbol
0001 Z 2	Reset counter of daily total
GT *00000 1	Reset counter of periodic consolidation
001929.93	Grand total
GT *00000 2	
002255.49	
GT -00000 3	
000325.56	
GT *00000 TR	
000002.00	

**Note**

- The subsequent printout occurs in the same format as in the X/Z report for daily total.
- On the X report, only the "X2" is printed.

### Daily net report

Z 2	
01-08	Date
21 Q	Customer counter
* 357.00	TL
02-08	
31 Q	
* 527.00	TL
31-08	
23 Q	
* 391.00	TL

**Note**

On the X report, the "X2" is printed instead of the "Z2."

# COMPULSORY CASH/CHEQUE DECLARATION

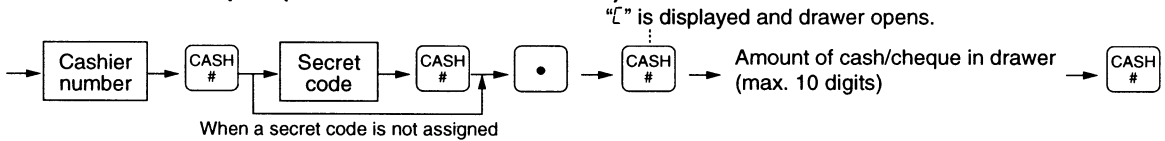
If your machine has been programmed for compulsory cash/cheque declaration, a cashier must declare cash/cheque in drawer in advance according to the type of the declaration when a cashier takes cashier Z reports. Compulsory cash/cheque declaration is available in the below two types. You can choose either of these. Consult your dealer for details.

## Types of compulsory cash/cheque declaration

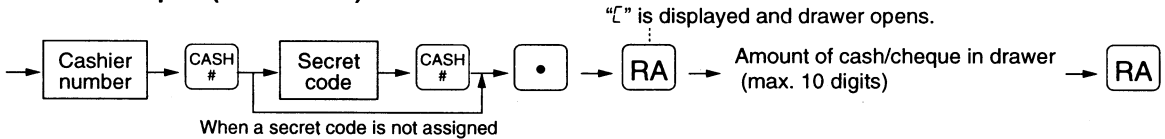
- Compulsive when individual cashier resetting is taken
- Compulsive when full cashier resetting is taken

### Procedure

#### Individual cashier Z report (OP X/Z mode or X1/Z1 mode)



#### Full cashier Z report (X1/Z1 mode)



**Note** The corresponding cashier must be assigned (sign-on) to take the cashier Z report.

## Sample report

Z	1	
#	1	
69Q		
*886.43	TL	
*74.21	n 1	
*16.10	n 4	
*48.00	◀	Received on account total
*30.00	▶	Paid out total
*753.93	CA	Cash total
*2.50	CA 2	
*30.15	CH 1	Cheque sales total

*15.00	CH 4	
*32.50	CR 1	Credit sales and tendering total
*55.00	CR 2	
*536.00	CA TL	Cash in drawer
*75.15	CH TL	Cheque in drawer
*611.15		Entered (declared) cash/cheque in drawer
*611.15	TL	
*0.00		Cash/cheque in drawer
		Difference

# OVERRIDE ENTRIES

The register allows you to override programmed limit for functions (such as for maximum amounts) in the MGR mode. Turn the mode switch to the MGR position and make an override entry using the manager key (MA).

## Example

Key operation	Print
REG-mode entries	<div style="text-align: right;">                     02 *15.00                      -2.50 e2                        *12.50 CA                 </div>
1500 <input type="button" value="2"/>	
Error..... 250 <input type="button" value="e2"/>	
<input type="button" value="CL"/>	
Turn the mode switch to the MGR position.	
250 <input type="button" value="e2"/>	
Return the mode switch to the REG position.	
<input type="button" value="TLNS"/>	

# CORRECTION AFTER FINALIZING A TRANSACTION

When you need to void incorrect entries that cashiers cannot correct (incorrect entries that are found after finalizing a transaction or cannot be corrected by direct, indirect, or subtotal void), follow this procedure.

1. Turn the mode switch to the  position using the manager key (MA).
2. Repeat the entries that are recorded on an incorrect receipt. (All data for the incorrect receipt are removed from register memory; the voided amounts are added to the void-mode register totalizer.)

Print	
26-08-97  R001 *1.25 02 *5.00  *6.25 CA  123-1013 <input type="button" value="u"/> 1 13-00	Cancellation symbol

# PRIOR TO ENTRIES

## 1 Preparations for entries

Before registrations, insert the operator key into the mode switch and turn it to the REG position and check the following items:

### ■ Receipt and journal paper rolls

If the receipt and journal paper rolls are not set in the machine or there are low rolls, install new ones according to "4. Installing and removing the paper rolls."

#### Receipting function

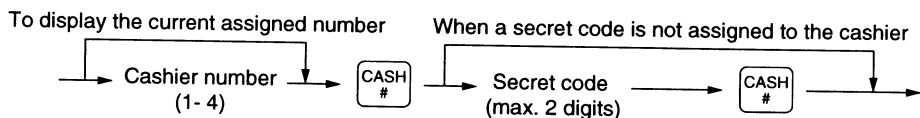
You can disable receipt printing in the REG mode to save paper using the receipting function. To disable receipt printing, press the **RCPT** key in the OP X/Z position. This key toggles the receipt printing status ON and OFF.

To check the receipt printing status, turn the mode switch to the OP X/Z position or press the **CL** key in the REG mode. When the function is in the OFF status, the receipt off indicator "\_" illuminates. Even if the function is in the OFF status, the register prints reports, so always install a receipt roll regardless of the status.

### ■ Cashier assignment

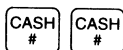
Prior to item entries, each cashier must assign his or her cashier number to the register.

- To assign the cashier (sign-on):



Once a cashier is assigned, the sign-on status is kept until another cashier is assigned or the cashier Z report is taken.

- To cancel the assignment (sign-off):



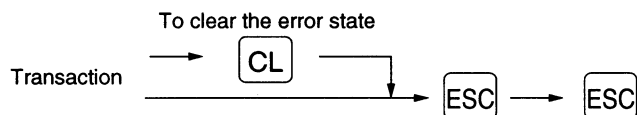
## 2 Error warning

In the following examples, your register will go into an error state accompanied with a warning beep and the error symbol "E" on the display. Clear the error state by pressing the **CL** key and take proper action.

- When you enter an over 13-digit number (entry limit overflow): Cancel the entry and re-enter a correct number.
- When you make an error in key operation: Clear the error and continue operation.
- When you make an entry beyond a programmed amount entry limit: Check to see if the entered amount is correct. If it is correct, it can be rung up in the MGR mode. Contact your manager.
- When an including-tax subtotal exceeds eight digits: Delete the subtotal by pressing the **CL** key and press the **TL/NS**, **CA2**, **CH** through **CH4**, **CR**, or **CR2** key to finalize the transaction.

### ■ Error escape function

When you want to quit a transaction because of an error or something uncontrollable, use the error escape function as shown below:



The transaction is voided and the receipt is issued by this function. If you have already entered tendered amount, the operation is finalized as a cash sale.

# ENTRIES

## 1 Item entries

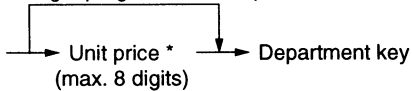
### ■ Single item entries

#### Procedure

#### Department entries (direct entries)

Enter a unit price and press a department key. If you use a programmed unit price, press a department key only.

When using a programmed unit price



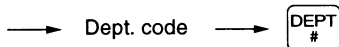
\*Less than the programmed upper limit amounts

#### Note

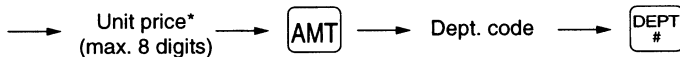
When those departments for which the unit price has been programmed as zero (0) are entered, only the sales quantity is added.

#### Department entries (indirect entries)

Enter a department code and press the **DEPT #** key.



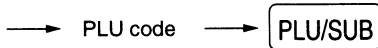
#### Department entries (open price entries)



\*Less than the programmed upper limit amounts

#### PLU entries

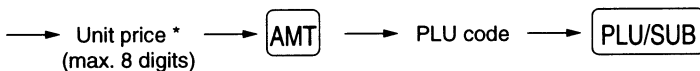
Enter a PLU code and press the **PLU/SUB** key.



#### Note

When those PLUs for which the unit price has been programmed as zero (0) are entered, only the sales quantity is added.

#### Subdepartment (open PLU) entries



\*Less than the programmed upper limit of associated department



**Example**

**Key operation**

1200   
  
 12   
 1000  13   
 2   
 1200  10

**Print**

```

26-08-97

02 *12.00
01 *5.00
12 *2.00
13 *10.00
PL002*1.50
PL010
    *12.00

    *42.50 CA

123-1015 1
    13-06
    
```

**Repeat entries**

You can use this function for entering a sale of two or more same items.

**Example**

**Key operation**

Repeated dept. entry (direct) { 200   
  
  
 Repeated dept. entry (indirect) { 715   
 13   
  
 Repeated PLU entry { 51   
  
 Repeated subdept. entry { 500   
 6

**Print**

```

01 *2.00
01 *2.00
01 *2.00
13 *7.15
13 *7.15
PL051*2.85
PL051*2.85
PL006*5.00
PL006*5.00

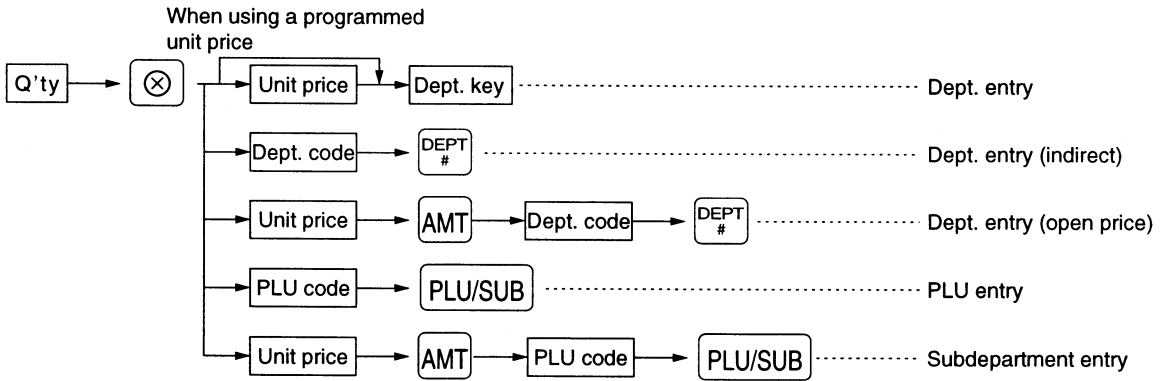
    *36.00 CA
    
```

## ■ Multiplication entries

Use this feature when you need to enter two or more same items.

This feature helps when you sell a large quantity of items or need to enter quantities that contain decimals.

### Procedure



- Q'ty: Up to six digits (integer + decimal)
- Unit price: Less than a programmed upper limit
- Q'ty x unit price: Up to eight digits

### Example

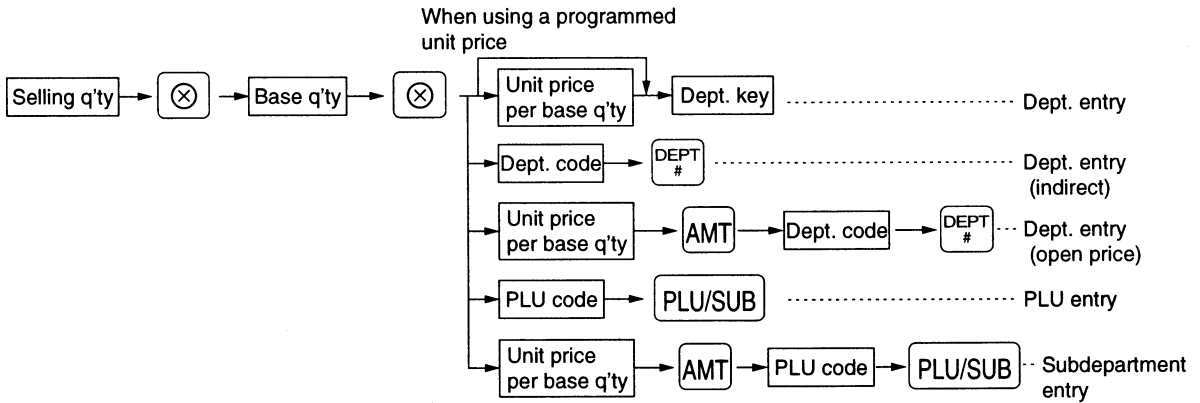
	Key operation
Department entry	7 . 5 ⊗
	165 2
Indirect department entry	8 . 25 ⊗
	14 DEPT #
PLU entry	15 ⊗
	13 PLU/SUB
Subdepartment entry	3 ⊗
	100 AMT
	60 PLU/SUB
	TL/NS

	Print
	7.5Q
	1.65@
02	*12.38
	8.25Q
	3.00@
14	*24.75
	15Q
	2.10@
R013	
	*31.50
	3Q
	1.00@
R060	*3.00
	*71.63 CA

## ■ Split-pricing entries

You will use this function when your customer wants to purchase more or less than the base quantity of a loose item.

### Procedure



- Selling quantity: Up to six digits (integer + decimal)
- Base quantity: Up to two digits (integer)

### Example

#### Key operation

```

7 ⊗
10 ⊗
600 2
8 ⊗
5 ⊗
17 PLU/SUB
    TL/NS
  
```

#### Print

```

          7Q
          10
          6.00a
02 *4.20
          8Q
          5
          3.00a
R017*4.80

          *9.00 CA
  
```

## ■ Single item cash sale (SICS) entries

- This function is useful when a sale is for only one item and is for cash; such as a pack of cigarettes. This function is applicable only to those departments that have been programmed for SICS or to PLUs or subdepartments associated with them.
- The transaction will be finalized and the drawer opens as soon as you press a department key, **DEPT #** or **PLU/SUB** key.

**Example**

Key operation	Print
250 For finishing the transaction → <b>2</b>	02 *2.50 *2.50 CA

**Note** If a ring-up to a department or PLU/subdepartment programmed for SICS follows the ones to departments or PLUs/subdepartments not programmed for SICS, it does not finalize and results in a normal sale.

**2 Displaying subtotals**

When you press the **#/TM/ST** key, the subtotal of all entries which have been made will be displayed and the "D" lamp will light up in the display.

**3 Finalization of transaction**

**Cash or cheque tendering**

Press the **#/TM/ST** key to get a subtotal, enter the amount tendered by your customer, then press the **TL/NS** or **CA2** key if it is a cash tender, or press one of the **CH** through **CH4** keys if it is a cheque tender. When the amount tendered is greater than the amount of the sale, your register will show the change due amount and the symbol "←" will light up. Otherwise your register will show a deficit and the symbol "→" will light up.

**Example**

**Cash tendering**

Key operation	Print
? #/TM/ST 1000 TL/NS	*7.35 TL *10.00 ← *2.65 →

**Cheque tendering**

Key operation	Print
? #/TM/ST 1000 CH	*7.35 TL *10.00 CH 1 *2.65 →

**Mixed tendering (cheque + cash)**

**Example**

Key operation	Print
? #/TM/ST 1000 CH 500 TL/NS	*14.56 TL *10.00 CH 1 *5.00 ← *0.44 →

## ■ Cash or cheque sale that does not need any tender entry

Enter items and press the **TL/NS** or **CA2** key if it is a cash sale, or press one of the **CH** through **CH4** keys if it is a cheque sale. Your register will display the total sale amount and the symbol "F."

### Example

Key operation	Print
300 <b>1</b> 10 <b>PLU/SUB</b> <b>TL/NS</b>	<pre> 01  *3.00 PL010*7.15  *10.15 CA           </pre>
	In the case of cheque sale <pre> *10.15 CH 1           </pre>

## ■ Credit sale

Enter items and press the corresponding credit keys (**CR** and **CR2**).

### Example

Key operation	Print
3250 <b>2</b> <b>CR</b>	<pre> 02  *32.50  *32.50 CR 1           </pre>

Amount tendering operations (i.e., change calculations) can be achieved by the **CR** or **CR2** key when your register has been programmed to allow for it.

## ■ Mixed-tender sale (cash or cheque tendering + credit tendering)

### Example

Key operation	Print
? #/TM/ST 950 <b>TL/NS</b> <b>CR2</b>	<pre> *49.50 TL *9.50 + *40.00 CR 2           </pre>

### Note

Press the **CH** through **CH4** key, the **CR** or **CR2** key in place of the **TL/NS** key when your customer makes payment by cheques or by credit account.

## 4 Computation of VAT (Value Added Tax)/tax

### ■ VAT/tax system

The machine may be programmed for the following six tax systems by your dealer.

#### Automatic VAT 1, 2, 3, 4 system (Automatic operation method using programmed percentages)

This system, at settlement, calculates VAT for taxable 1, taxable 2, taxable 3 and taxable 4 subtotals by using the corresponding programmed percentages.

#### Automatic tax 1, 2, 3, 4 system (Automatic operation method using programmed percentages)

This system, at settlement, calculates taxes for taxable 1, taxable 2, taxable 3 and taxable 4 subtotals by using the corresponding programmed percentages, and also adds the calculated taxes to those subtotals, respectively.

#### Manual VAT 1, 2, 3, 4 system (Manual entry method using programmed percentages)

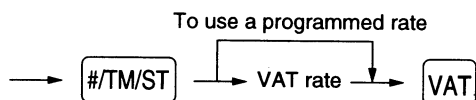
##### Procedure



This system provides the VAT calculation for taxable 1, taxable 2, taxable 3 and taxable 4 subtotals. This calculation is performed using the corresponding programmed percentages when the **VAT** key is pressed just after the **#/TM/ST** key.

#### Manual VAT 1 system (Manual entry method for subtotals that uses VAT 1 preset percentages)

##### Procedure



This system enables the VAT calculation for the subtotal of entries which have been made until you press the **#/TM/ST** key. This calculation is performed using the VAT 1 preset percentages when the **VAT** key is pressed just after the **#/TM/ST** key. For this system, the keyed-in tax rate can be used.

#### Manual tax 1, 2, 3, 4 system (Manual entry method using programmed percentages)

##### Procedure



This system provides the tax calculation for taxable 1, taxable 2, taxable 3 and taxable 4 subtotals. This calculation is performed using the corresponding programmed percentages when the **VAT** key is pressed just after the **#/TM/ST** key. After this calculation, you must finalize the transaction.

#### Automatic tax 1, 2, 3 and VAT system

This system enables the calculation in the combination with automatic tax 1 through 3 and VAT. This combination can be any of tax 1 through 3 and VAT. The tax amount is calculated automatically with the percentages previously programmed for these taxes.

**Example**

**Key operation**

(When the manual  
VAT 1, 2, 3, 4  
system is selected)

550

**Print**

02	*5.50	
	*5.50	ST
	*5.50	TX ST
	*0.16	VT 1
	*5.34	
	*5.50	CA

**5 Auxiliary entries**

**■ Percent calculations (premium or discount)**

- Your register provides the percent calculation for the subtotal or each item entry.
- Percent rate: 0.01 to 100.00%

**Percent calculation for the subtotal**

**Example**

**Key operation**

(When a discount of  
10% is programmed  
for the  key)

4

140

225

**Print**

		4 Q
	1.40 @	
01	*5.60	
02	*2.25	
02	*2.25	
	*10.10	ST
	-10.00	% 1
	-1.01	
	*9.09	CA

**Percent calculation for item entries**

**Example**

**Key operation**

(When a premium of 15% is programmed for the [%2] key)

800 [2]  
 [2]  
 50 [PLU/SUB]  
 7 [.] [5] [%2]  
 [TL/NS]

**Print**

```

02 *8.00
    15.00 %2
    *1.20
PL050*5.00
      7.5 %2
      *0.38

*14.58 CA
    
```

**■ Deduction entries**

Your register allows you to deduct certain amount less than a programmed upper limit after the entry of an item or the computation of a subtotal.

**Deduction for the subtotal**

**Example**

**Key operation**

575 [2]  
 51 [PLU/SUB]  
 [#/TWST]  
 100 [⊖]  
 [TL/NS]

**Print**

```

02 *5.75
PL051*7.50
    *13.25 ST
    -1.00 ⊖2

*12.25 CA
    
```

**Deduction for item entries**

**Example**

**Key operation**

675 [1]  
 75 [⊖]  
 [TL/NS]

**Print**

```

01 *6.75
    -0.75 ⊖1

*6.00 CA
    
```



## ■ Refund entries

If a refund item is to be entered into a department, enter the amount of the refund, then press the **RF** key and the corresponding department key, or enter the corresponding department code then press the **RF** and **DEPT** keys, in this order. If an item entered into a PLU is returned, enter the corresponding PLU code, then press the **RF** and **PLU/SUB** keys, in this order.

### Example

Key operation	Print
250 <b>RF</b> <b>2</b> 7 <b>⊙</b> 13 <b>RF</b> <b>PLU/SUB</b> <b>TL/NS</b>	02 -2.50 RF - 7 Q 2.10 @ PL 013 -14.70 RF *17.20 →

## ■ Printing of non-add code numbers

Enter a non-add code number such as a customer's code number and credit card number within a maximum of 13 digits and press the **#/TM/ST** key at any point during the entry of a sale. Your register will print it at once.

### Example

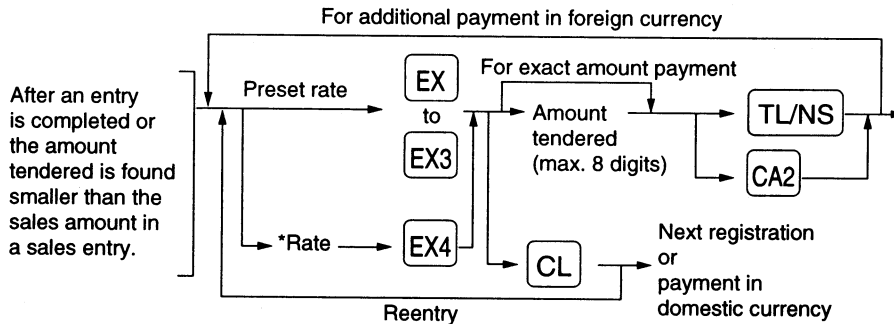
Key operation	Print
1230 <b>#/TM/ST</b> 1500 <b>1</b> <b>CR2</b>	0000000 001230# 01 *15.00 *15.00 CR 2

## 6 Payment treatment

### ■ Currency exchange

Your register allows payment entries of foreign currency. Pressing the **EX** through **EX4** key creates a subtotal in foreign currency. Cash alone can be handled after currency exchange.

#### Procedure



\*Rate: 0.0000 to 9999.9999

**Note** When the amount tendered is short, the deficit will be shown in domestic currency.

#### Example

Key operation	Print
2300 <b>2</b>	02 *23.00
Currency exchange → 4650 <b>1</b>	01 *46.50
Amount tendered in foreign currency → 10000 <b>EX</b>	*69.50 <b>TL</b> ← Total in domestic currency
	0.6068 <b>EX 1</b> ← Exchange rate
	42.18 ← Subtotal in foreign currency
	100.00 ← Amount tendered in foreign currency
	*95.28 → Change due amount in domestic currency

### ■ Received on account entries

#### Procedure

Amount (max. 8 digits) → **RA**

#### Example

Key operation	Print
12345 <b>#/TM/ST</b>	0000000
4800 <b>RA</b>	012345#
	*48.00 ◀

## ■ Paid out entries

### Procedure

Amount  
(max. 8 digits) → PO

### Example

#### Key operation

6789 #/TWST  
3000 PO

#### Print

```
0000000
006789#
*30.00 ▶
```

## ■ No sale (exchange)

Simply press the **TL/NS** key without any entry. The drawer will open and the printer will print the "NS" on both the journal and the receipt. If you let your machine print a non-add code number before pressing the **TL/NS** key, a no sale entry will be achieved with a non-add code number printed.

#### Print

NS

## ■ Cashing a cheque

### Procedure

Cheque amount → CH

### Example

#### Key operation

3000 CH

#### Print

\*30.00 CH

## 7 Automatic sequencing key (AUTO) entries

You can achieve a programmed transaction simply by pressing a corresponding automatic sequencing key.

### Example

(**AUTO**<sub>2</sub>) = 500 1 TL/NS

#### Key operation

**AUTO**<sub>2</sub>

#### Print

```
01 *5.00
*5.00 CA
```

# CORRECTION

## 1 Correction of the last entry (direct void)

If you make an incorrect entry relating to a department, PLU/subdepartment, percentage ( $\%$  or  $\%2$ ), deduction ( $\ominus$  or  $\ominus2$ ) or refund, you can void this entry immediately by pressing the  $\infty$  key.

### Example

Key operation	Print
1250 $\boxed{1}$	01 *12.50
$\infty$	01 -12.50 <sup>n</sup>
2 PLU/SUB	PL002*1.50
$\%2$	5.00 %2
$\infty$	*0.08
520 $\boxed{2}$	-0.08 <sup>n</sup>
40 $\boxed{\ominus2}$	02 *5.20
$\infty$	-0.40 $\ominus2$
$\infty$	*0.40 <sup>n</sup> $\ominus2$
TL/NS	*6.70 CA

## 2 Correction of the next-to-last or earlier entries (indirect void)

With the  $\infty$  key, you can void any incorrect positive department or PLU/subdepartment entry made during a transaction if you discover it before finalizing the transaction (e.g. pressing the  $\boxed{TL/NS}$  key). This function is applicable to plus department and PLU/subdepartment entries only.

### Example

Key operation	Print
Correction of a department entry → 1310 $\boxed{1}$	01 *13.10
1755 $\boxed{2}$	02 *17.55
58 PLU/SUB	PL058*3.00
→ 1310 $\infty$ $\boxed{1}$	01 -13.10 <sup>n</sup>
Correction of a PLU entry → 58 $\infty$ PLU/SUB	PL058-3.00 <sup>n</sup>
TL/NS	*17.55 CA

### 3 Subtotal void

You can void an entire transaction. Once subtotal void is executed, the transaction is aborted and the register issues a receipt.

**Example**

Key operation	Print
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">Subtotal void {</div> <div style="display: flex; flex-direction: column; gap: 5px;"> <div style="display: flex; align-items: center;">1310 <span style="border: 1px solid black; padding: 2px 5px;">1</span></div> <div style="display: flex; align-items: center;">35 <span style="border: 1px solid black; padding: 2px 5px;">PLU/SUB</span></div> <div style="display: flex; align-items: center;"><span style="border: 1px solid black; padding: 2px 5px;">#/TMST</span></div> <div style="display: flex; align-items: center;"><span style="border: 1px solid black; padding: 2px 5px;">∞</span></div> <div style="display: flex; align-items: center;"><span style="border: 1px solid black; padding: 2px 5px;">#/TMST</span></div> </div> </div>	<pre style="font-family: monospace; margin: 0;"> 01 *13.10 PL 035 *3.00     *16.10  ST     -16.10<sup>n</sup>     *0.00  TL                 </pre>

### 4 Correction of incorrect entries not handled by the direct, indirect, or subtotal void function

Any errors found after the entry of a transaction has been completed or during an amount tendered entry cannot be voided. These errors must be handled by the manager.

# SPECIAL PRINTING FUNCTIONS

## 1 Receipt Issuance after finalization

If your customer wants a receipt after you have finalized a transaction with the receipting function being in the "OFF" status (no receipting), press the **RCPT** key. This will produce a receipt.

**Note** Pressing the **RCPT** key in the OP X/Z mode before registration toggles the receipt status "ON" and "OFF."

### Example

Printing a receipt after making the entries shown below with the receipting function being in the "OFF" status

#### Key operation

850 **2**  
**TL/NS**

For receipting → **RCPT**

#### Print

(Journal)

```
26-08-97
02 *8.50
    *8.50 CA
123-1068 1
    14-18
```

(Receipt)

```
26-08-97

02 *8.50

    *8.50 CA

123-1068 1
    14-18
```

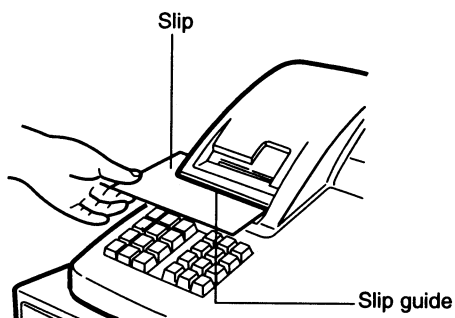
## 2 Validation printing function

Your cash register can perform a validation printing.

### Validation slip setting and printing

Insert a validation slip into the printer with its printing side downward (see the figure at right), then press the **VP** key.

**Note** To insure proper validation, insert the slip securely until it stops.



## ■ Validation printing examples

### Validation printing of item entries

#### • Department entry

26-08-97	1	01	*13	•50	(Selected by programming)
Date	Cashier number		Amount		
123-1070	1	01	*13	•50	
Register no.	Consecutive no.		Amount		

#### • PLU entry

26-08-97	1	PL002	*1	•25
----------	---	-------	----	-----

#### • Discount entry (⊖ 1 and ⊖ 2)

26-08-97	1		-7	•00	⊖ 2
----------	---	--	----	-----	-----

#### • Refund entry

26-08-97	1	06	-12	•36	RF
----------	---	----	-----	-----	----

#### • Void entry

26-08-97	1	01	-15	•00	u
----------	---	----	-----	-----	---

### Validation printing after the finalization of a transaction

26-08-97	1		*25	•00	TL
			Amount		Transaction symbol

#### TL/NS or CA2 key

- When an amount tendered entry is made
- When no amount tendered entry is made

#### Transaction symbol

- TL
- CA or CA2

#### Amount

- Sales amount
- Sales amount

#### CH to CH4 key

- When an amount tendered entry is made
- When no amount tendered entry is made
- When a cheque cashing operation is made

- CH1 to CH4 or TL
- CH1 to CH4
- CH

- Amount tendered (depending upon setup)
- Sales amount
- Amount for cheque cashing

#### CR or CR2 key

- RA key
- PO key

#### CR1 or CR2

- ◀
- ▶

- Sales amount
- Amount received on account
- Amount paid out

## Validation printing of the training mode

26-08-97 TR 1 \*2.00 CA

Training mode symbol

### Note

- When you make an entry for which compulsory validation printing has been programmed, the “ $\square$ ” will light up in the display. Carry out the validation printing. You cannot proceed to any further entry unless this printing is completed.
- Programmed compulsory validation printing can be overridden by performing the following operation. If you need this function, consult your dealer.

1. Turn the mode switch to the “MGR” position.

2.  $\rightarrow$   $\square$   $\rightarrow$   $\square$  VP

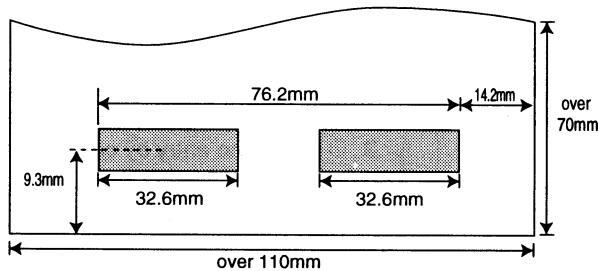
## Validation slip specification

Make validation slips according to the following specification. The use of any slips other than specified causes the printer to malfunction.

### Thickness and weight:

Plain paper: 0.06 to 0.09 mm thickness  
52.3 to 64 g/m<sup>2</sup> in weight

### Printing position



## 3 Printing of the employee arrival and departure times

Your cash register allows the cashier to print the employee arrival and departure times, etc. using the validation printing function.

1. Turn the mode switch to the “OP X/Z” position.
2. Put a card into the paper chute and perform the following key operation.
  - Arrival time : Numeric key 1  $\rightarrow$   $\square$  VP
  - Departure time : Numeric key 2  $\rightarrow$   $\square$  VP
3. Sample printout

26-08-97	1	8-40	1
	Cashier number	Arrival time	Departure time
26-08-97	1	17-10	2



# OVERLAPPED CASHIER ENTRY

This function allows you to switch from one cashier to another and to interrupt the first cashier's entry. So the second cashier can do his or her entry in this mode. For actual use of this function, contact your dealer.

## Example

Cashier 1: Entry started  
 Cashier 2: Cashier change (1 to 2), interrupt initiated  
 Cashier 2: Transaction finished (2)  
 Cashier 1: Cashier change (2 to 1), entry restarted

## Note

- The overlapped cashier entry is not effective while the tendering sale is going on.
- If any cashier is still making an entry (or has not finalized the transaction yet), the machine does not run in any mode other than REG and MGR, and no X/Z reports can be printed. The symbol "E" and the corresponding cashier number(s) is displayed at this time.

Key operation	Comments
1. Cashier 1 is assigned. 100 <input type="text" value="1"/> 360 <input type="text" value="3"/> <input type="text" value="3"/>	The entry by cashier 1 is started.
2. Cashier 2 is assigned. 3 <input type="text" value="⊗"/> 150 <input type="text" value="2"/> <input type="text" value="TL/NS"/>	The entry by cashier 2 is started. (The entry by cashier 1 is interrupted.) The transaction by cashier 2 is finalized.
3. Cashier 1 is assigned. 100 <input type="text" value="1"/> 300 <input type="text" value="3"/> <input type="text" value="TL/NS"/>	The entry by cashier 1 is restarted. The transaction by cashier 1 is finalized.

# OPERATOR MAINTENANCE

## 1 Battery replacement

If the low battery symbol “L” appears on the far left of the display, there may be the following causes:

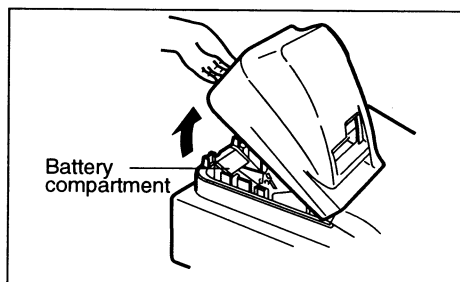
- Less than three batteries are installed in your register.
- The voltage of the batteries is less than the required level.
- The batteries are dead.

Check the batteries and replace new ones within two days as the following steps:

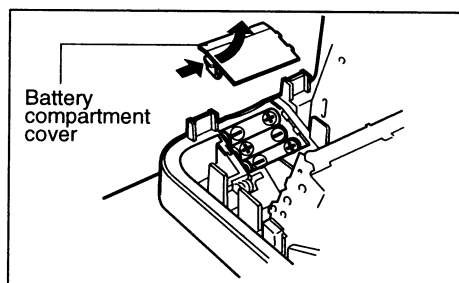
### Replacing the batteries

**Caution** *If the AC power cord is disconnected or a power failure occurs when the batteries are dead or not installed, all the programmed settings will be reset to the default settings and any data stored in memory will be cleared. If the symbol “L” appears during a transaction, complete it before replacing batteries.*

1. Make sure that the register is plugged in.
2. Turn the mode switch to the OP X/Z position.
3. Remove the printer cover.



4. Open the battery compartment cover and remove the old batteries.
5. Install three new AA batteries in the battery compartment and check that the “L” symbol has disappeared.
6. Close the battery compartment cover.
7. Replace the printer cover.



## 2 In case of power failure

If power is lost, the machine retains its memory contents and all information on sales entries when the batteries are in the proper state of charge.

- When power failure is encountered in register idle state or during an entry, the machine returns to the normal state of operation after power recovery.
- When power failure is encountered during a printing cycle, the register prints “\*\*\*\*\*” and then carries out the correct printing procedure.

### 3 In case of printer's motor locking

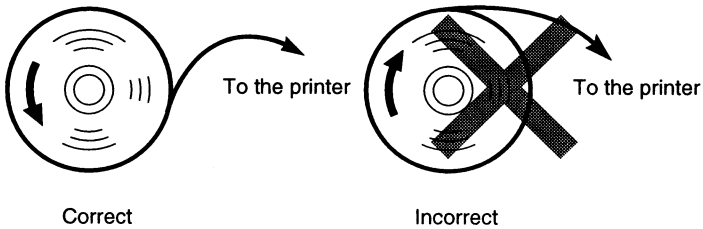
If the printer's motor happens to lock, the printing stalls, the register will continuously start an intermittent beeping tone. If this occurs, please follow the procedure below.

1. Unplug the power cord from the outlet.
2. Insure the printer is clear of any obstructions (e.g. paper jams, etc.).
3. Plug the power cord into the outlet.
4. Insure that the receipt and journal paper is positioned properly.
5. Press the **CL** key.
6. The register prints "\*\*\*\*\*" and continues printing.

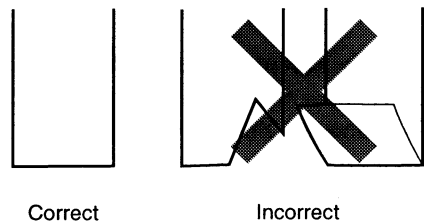
### 4 Installing and removing the paper roll

Install the paper roll in the printer. Be careful then to set the roll and cut the paper end correctly.

(How to set the paper roll)



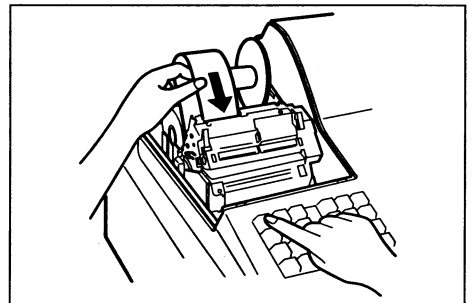
(How to cut the paper end)



### ■ Installing the paper roll

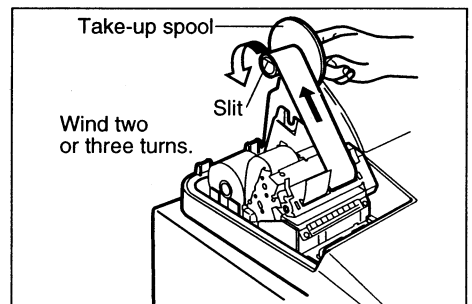
Installing the receipt paper roll

1. Turn the mode switch to the "REG" position with the AC cord connected.
2. Remove the printer cover.
3. Set the paper roll correctly and drop it into the printer.
4. Insert the paper end into the paper chute.
5. Press the receipt paper feed key to advance the paper by a required length.
6. Replace the printer cover.



Installing the journal paper roll

1. Turn the mode switch to the "REG" position with the AC cord connected.
2. Remove the printer cover.
3. Set the paper roll correctly and drop it into the printer.
4. Insert the paper end into the paper chute.
5. Press the journal paper feed key to advance the paper by a required length.
6. Insert the paper end into the slit of the paper take-up spool and wind it two or three turns around the spool shaft.
7. Set the spool on the bearing.
8. Replace the printer cover.

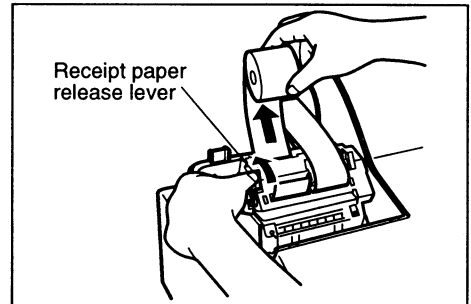


## ■ Removing the paper roll

When a dye appears on the paper roll, it is time to replace the existing paper roll. Replace the paper roll with a new one.

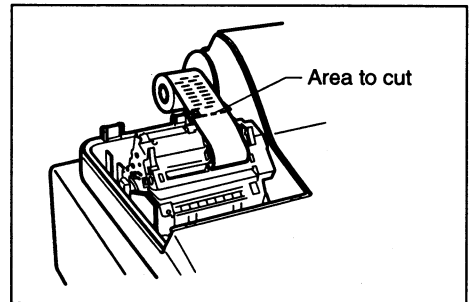
### Removing the receipt paper roll

1. Remove the printer cover.
2. Press and hold the receipt paper release lever and pull the unused paper roll in the direction of the arrow.

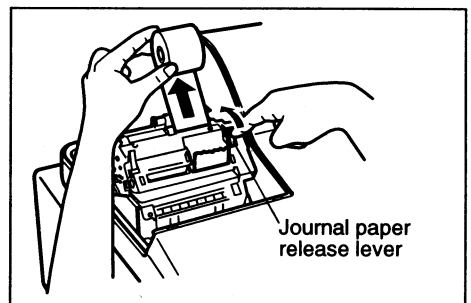


### Removing the journal paper roll

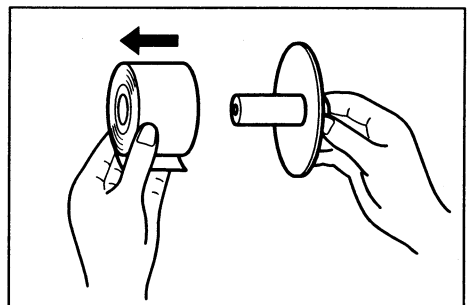
1. Remove the printer cover.
2. Press the journal paper feed key to advance the paper by several lines and then cut it.



3. Press and hold the journal paper release lever and pull the unused paper roll in the direction of the arrow.

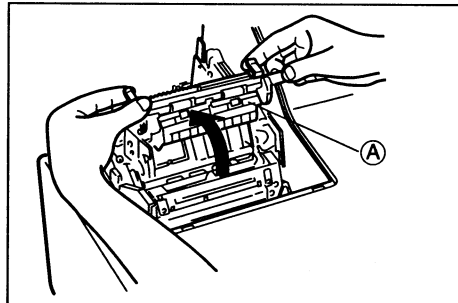
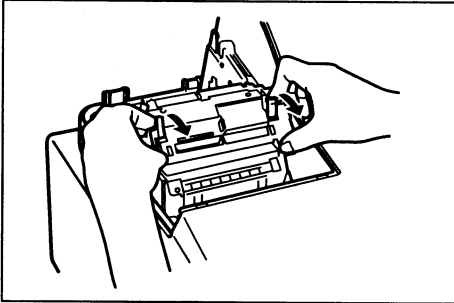


4. Remove the paper roll from the take-up spool.



## ■ Removing a paper jam

1. Remove the printer cover.
2. Pulling the receipt and journal paper release levers at the same time, lift part (A) up. (See the drawing below.)
3. Remove the paper jam.
4. Replace part (A) gently.
5. Reset the paper roll correctly following the steps shown in "Installing the paper roll."
6. Replace the printer cover.



## ■ Recording paper specifications

Be sure to use paper rolls specified by SHARP.

The use of any other paper rolls than specified could cause paper jamming, resulting in register malfunction.

### Paper specification

Paper width:	44.5 ± 0.5 mm
Max. outside diameter:	80 mm
Weight:	52.3 — 64.0 g/m <sup>2</sup>
Quality:	bond paper
Paper tube:	18 mm

- Be sure to set paper roll(s) prior to using your machine, otherwise it could malfunction.

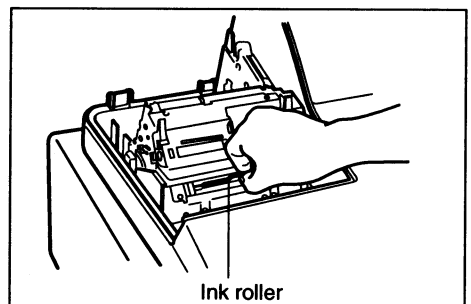
## 5 Replacing the ink roller

When printing becomes faint, replace the ink roller with a new one.

### Precautions:

- Be sure to use an ink roller specified by SHARP. The use of any ink rollers other than specified could cause troubles in the printer.
- After opening the parcel, be careful not to make the surface of the ink roller dirty, and install it soon.
- Do not pour ink to the ink roller.
- If you preserve the ink roller for a long time, the ink will be dry and its life will be shortened. Please use it soon. If you do not use it soon, put it in an airtight receptacle and preserve it in a cool and dark place. Do not leave it in a location that is subject to high humidity and direct radiation.

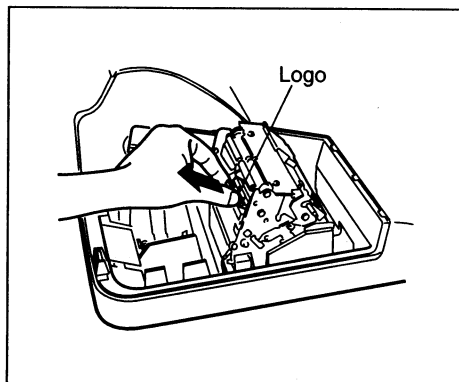
1. Remove the printer cover.
2. Pull the ink roller handle to remove the ink roller.
3. Install a new one.
4. Replace the printer cover.



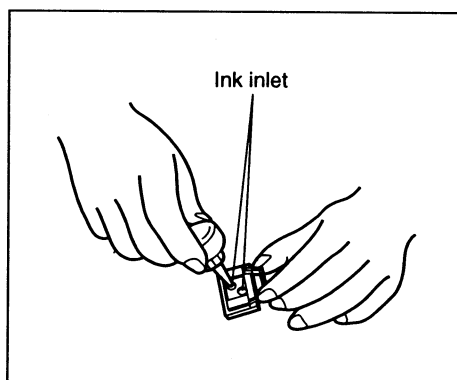
## 6 Ink refill

If the logo becomes too light, refill it with the supplied logo ink following the procedure given below.

1. Remove the printer cover.
2. Remove the store name logo by pulling it in the direction of the arrow.



3. Apply two or three drops of logo ink through the ink inlet situated on the back of the logo.
4. Replace the logo by the reverse procedure of removing.
5. Replace the printer cover.



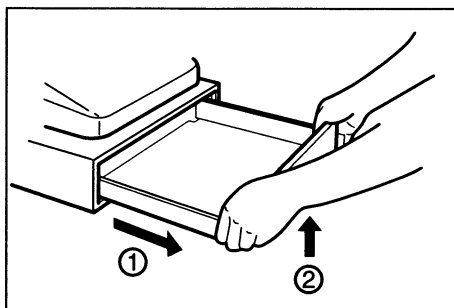
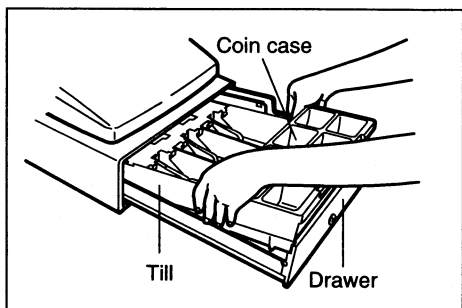
### Precautions

- The logo ink first gives a clear print 10 to 15 hours after being applied into the logo. Therefore, refilling at the end of daily business is most effective.
- Overinking should be avoided. This will create a blurry print.
- The ink is exclusively used for the logo. Do not apply the ink onto the ink roller.

When the supplied ink is exhausted, purchase the logo ink specified by SHARP through your dealer.

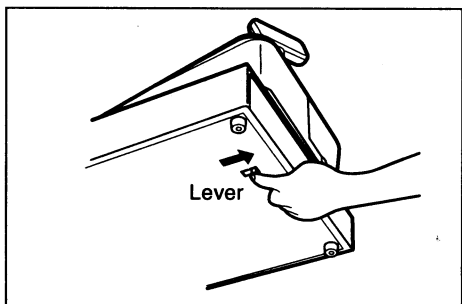
## 7 Removing the till and the drawer

The till in the register is detachable. After closing your business for the day, remove the till from the drawer with the drawer fully opened and keep the drawer open. The coin case is also detachable from the till. To detach the drawer, pull it forward fully with the till removed, and remove it by lifting it up.



## 8 Opening the drawer by hand

The drawer automatically opens in the usual way, however, when power failure is encountered or the machine becomes out of order, slide the lever located on the machine bottom toward the rear. (See the figure below.) The drawer will not open if it is locked with a drawer lock key.

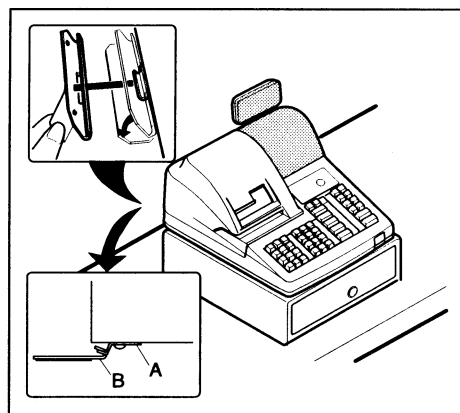


## 9 Installation of the fixing angle bracket

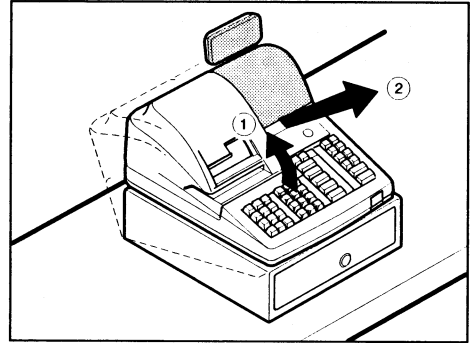
To avoid instability when the drawer is open, use the supplied fixing angle bracket to fix the drawer to the platform.

How to install

1. Remove the dust from the part to attach the fixing angle bracket to.
2. Peel off the adhesive tape on the fixing angle bracket.
3. Hook the angle bracket of the drawer (A) into the above-mentioned fixing angle bracket (B) and attach the bracket to the platform.



To move the register, lift up the front of the drawer and pull it forward.



## 10 Before calling for service

The malfunctions shown in the left-hand column below, labeled "Fault," do not necessarily indicate functional faults of the machine. It is therefore advisable to refer to the "Checking" shown in the right-hand column before calling for service.

Fault	Checking
(1) The display won't be illuminated even when the mode switch is turned to any other position than "⏻."	<ul style="list-style-type: none"> <li>• Is power supplied to the electric outlet?</li> <li>• Is the power cord plug out or loosely connected to the electrical outlet?</li> </ul>
(2) The display is illuminated, but the whole machine refuses registrations.	<ul style="list-style-type: none"> <li>• Is the cashier assigned to the register?</li> <li>• Is the mode switch set properly at the "REG" position?</li> </ul>
(3) No receipt is issued.	<ul style="list-style-type: none"> <li>• Is the receipt paper roll properly installed?</li> <li>• Is there a paper jam?</li> <li>• Is the receipting function in the "OFF" status?</li> </ul>
(4) No journal paper is taken up.	<ul style="list-style-type: none"> <li>• Is the take-up spool installed on the bearing properly?</li> <li>• Is there a paper jam?</li> </ul>
(5) Printing is unusual.	<ul style="list-style-type: none"> <li>• Is the ink roller installed properly?</li> <li>• Is the ink roller's life completed?</li> </ul>

# LIST OF OPTIONS

For your register, the following options are available. For details, contact your dealer.

- Till model ER-58CC and till cover model ER-03CV
- Remote drawer model ER-04DW
- Key kit models

By using the following key kits, you can change the keyboard layout of your register including the expansion of the number of departments.

- ER-11KT7: 30 regular size key kits
- ER-12KT7: 30 1 x 2 size key kits
- ER-22KT7: 10 2 x 2 size key kits
- ER-11DK7: 30 regular size dummy key kits
- ER-51DK7: 10 5 x 1 size dummy key kits

\* The ER-58CC and the ER-03CV are available from February 1997.



# SPECIFICATIONS

<b>Model:</b>	ER-A310	
<b>Dimensions (W x D x H):</b>	355 x 424 x 322 mm	
<b>Weight:</b>	11.5 kg	
<b>Power source:</b>	Official (nominal) voltage and frequency	
<b>Power consumption:</b>	Stand-by 10W Operating 31W (max.)	
<b>Working temperature:</b>	0 °C to 40 °C	
<b>Electronics:</b>	LSI (CPU), etc.	
<b>Display:</b>	Operator display :	7-segment display (10 positions)
	Customer display:	7-segment display (7 positions)
<b>Printer:</b>	Type:	Inner hammer, rubber character selection type
	Printing speed:	Max. 3.0 lines/second
	Printing capacity:	12 digits each for receipt and journal paper
	Other functions:	
		• Receipt ON-OFF function, journal selective function
		• Receipt and journal independent paper feed function
		• Validation printing function
<b>Ink roller:</b>	Color:	Purple (single color)
	Life:	0.4 millions of lines
<b>Logo:</b>	Dimensions of the printing face : 30 (W) x 20 (H) mm	
<b>Paper roll:</b>	Width:	44.5 ± 0.5 mm
	Max. diam.:	80 mm
	Weight:	52.3 - 64.0 g/m <sup>2</sup> (bond paper)
<b>Cash drawer:</b>	5 slots for bill and 8 for coin denominations	
<b>Accessories:</b>	Manager key	2
	Operator key	2
	Drawer lock key	2
	Ink roller	1 (mounted on the main body)
	Standard logo	1
	Logo ink	1 (5 cc)
	Paper roll	2
	Spool	1
	Instruction manual	1 copy
	Battery caution label	1
	Fixing angle bracket	1

\* Specifications and appearance subject to change without notice for improvement.

## FOR CUSTOMERS IN U.K.

### IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

<b>BLUE:</b>	<b>Neutral</b>
<b>BROWN:</b>	<b>Live</b>

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows.

The wire which is coloured **BLUE** must be connected to the terminal which is marked with the letter **N** or coloured black.

The wire which is coloured **BROWN** must be connected to the terminal which is marked with the letter **L** or coloured red.

The apparatus must be protected by a 3A fuse in the mains plug or distribution board.

**CAUTION: DO NOT CONNECT THE LIVE (BROWN) WIRE OR THE NEUTRAL (BLUE) WIRE TO THE EARTH TERMINAL OF YOUR 3 PIN MAINS PLUG.**

### Environment Protection

The device is powered by a battery. To dispose the battery safely to protect the environment, please note the following points:

- Take the used battery to your local waste depot, dealer or customer service centre for recycling.
- Do not throw the used battery into fire, into water or into the household waste!

### Umweltschutz

Das Gerät wird durch eine Batterie mit Strom versorgt. Um die Batterie sicher und umweltschonend zu entsorgen, beachten Sie bitte folgende Punkte:

- Bringen Sie die leere Batterie zu Ihrer örtlichen Mülldeponie, zum Händler oder zum Kundenservice-Zentrum zur Entsorgung.
- Werfen Sie die leere Batterie niemals ins Feuer, ins Wasser oder in den Hausmüll.

### Protection de l'environnement

L'appareil est alimenté sur pile. Afin de protéger l'environnement, nous vous recommandons de traiter la pile usagée la façon suivante:

- Apporter la pile usagée à votre centre de traitement des ordures ménagères le plus proche ou, à votre revendeur ou, au service après-vente, pour recyclage.
- Ne jamais jeter la pile usagée dans une source de chaleur, dans l'eau ou dans les vide-ordures.

### Miljöskydd

Denna produkt drivs av batteri.

Vid batteribyte skall följande iakttas:

- Det förbrukade batteriet skall inlämnas till en lokala handlare eller till kommunal miljöstation för återinsamling.
- Kasta ej batteriet i vattnet eller i hushållssoporna. Batteriet får ej heller utsättas för öppen eld.



**SHARP**<sup>®</sup>  
**SHARP CORPORATION**