SHARP®

ELECTRONIC CASH REGISTER
CAISSE ENREGISTREUSE ELECTRONIQUE

MODEL
MODELE **ER-A320**

INSTRUCTION MANUAL

MANUEL D'INSTRUCTIONS

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CAUTION

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

ATTENTION

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

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INTRODUCTION

Thank you very much for your purchase of the SHARP Electronic Cash Register, Model ER-A320.
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 (local voltage ± 10% AC).**
  Other electrical devices on the same electrical circuit could cause the register to malfunction.
- **If the register malfunctions, call your local dealer for service - do not try to repair the register yourself.**
- **For a complete electrical disconnection, pull out the mains plug.**

PRECAUTION

This Electronic Cash Register has a built-in memory protection circuit which is operated by a rechargeable battery pack.
It should be known that all batteries will, in time, dissipate their charge even if not used. Therefore to insure an adequate initial charge in the protection circuit and to prevent any possible loss of memory upon installation, it is recommended that each unit be allowed to be recharged for a period of 24 to 48 hours prior to use by the customer.
In order to charge the battery pack, the machine must be plugged in and its power switch must be set to the "ON" position. This recharging precaution can prevent unnecessary initial service calls.

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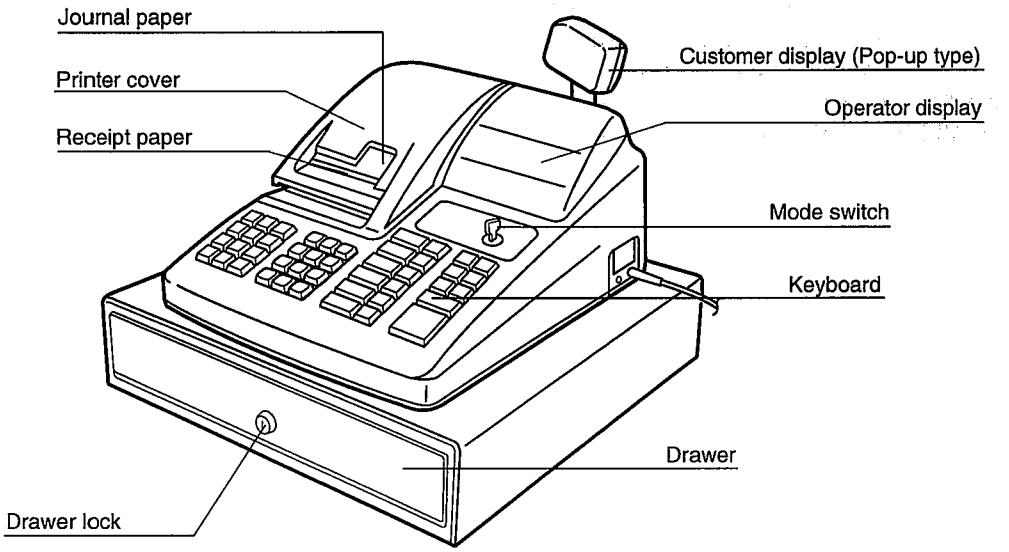
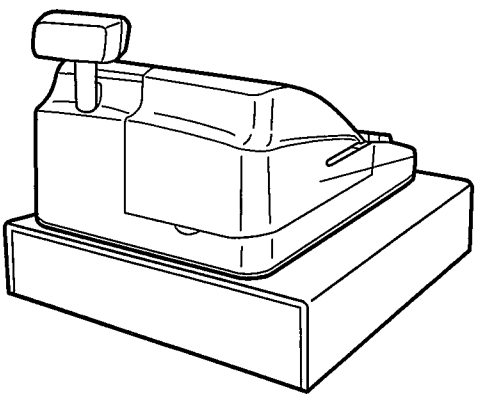
EXTERNAL VIEW

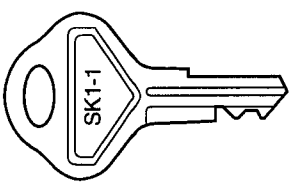
■ Front view



■ 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.

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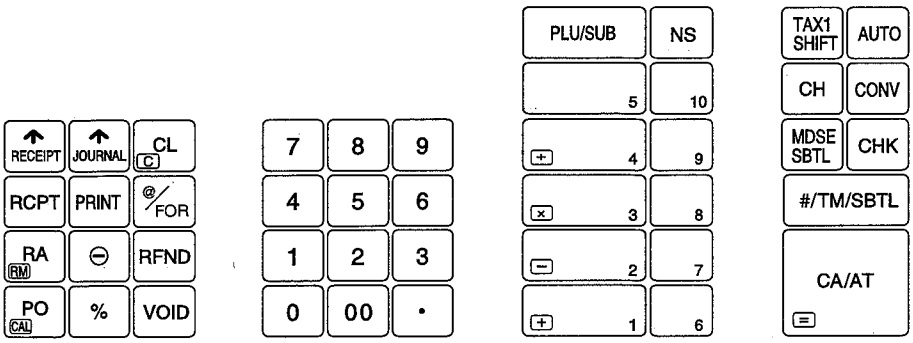
KEYBOARD



Note *All the keys but the numeric, clear, decimal point, multiplication/split pricing, non-add/time dispay/subtotal, cash/amount tendered/equals, and two paper feed keys can be changed in their positions. If you want to change the layout, contact your dealer.*

■ Standard keys

RECEIPT	Receipt paper feed key	RCPT	Receipt print key
JOURNAL	Journal paper feed key	⊖	Discount key
0 ~ 9	Numeric keys	AUTO	Automatic sequencing key
00		%	Percent key
•	Decimal point key	NS	No-sale key
@/FOR	Multiplication/split-pricing key	RA RM	Received-on-account/recall memory key
CL C	Clear key	PO CAL	Paid-out/calculation mode key
PRINT	Validation print key	RFND	Refund key
1	Department 1/plus key	VOID	Void key
2	Department 2/minus key	CH	Charge key
3	Department 3/multiplication key	CHK	Check key
4	Department 4/division key	CONV	Conversion key
5 ~ 10	Department keys	MDSE SBTL	Merchandise subtotal key
PLU/SUB	Price lookup/subdepartment key	#/TM/SBTL	Non-add/time display/subtotal key
TAX1 SHIFT	Tax 1 shift key	CA/AT =	Cash/amount tendered/equals key

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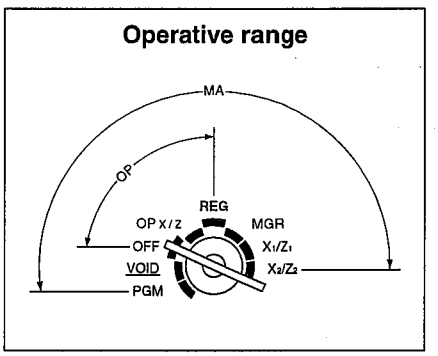
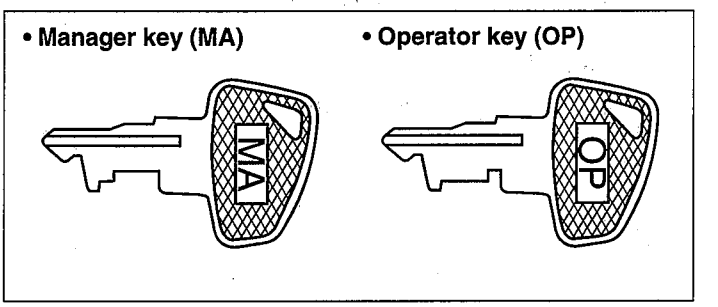
■ Optional keys

11 ~ 40	Department key	CONV2 ~ CONV4	Conversion 2 thru 4 keys
DEPT#	Department number entry key	CH2	Charge 2 key
TAX2 SHIFT ~ TAX4 SHIFT	Tax 2 thru 4 shift keys	⊖2	Discount 2 key
TAX	Manual tax key	%2	Percent 2 key
CA2	Cash total 2 key	AUTO 2	Automatic sequencing 2 key
ESC	Error escape 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 "OFF" position.





The mode switch has these settings:

OFF: The OFF mode locks all register operations.
No change occurs to register data in this mode.

OP X/Z: This setting allows cashiers to take flash reports (only when your register has been programmed for "OP X/Z mode 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 RCPT key.

REG: For entering sales

PGM: To program various items

VOID: 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

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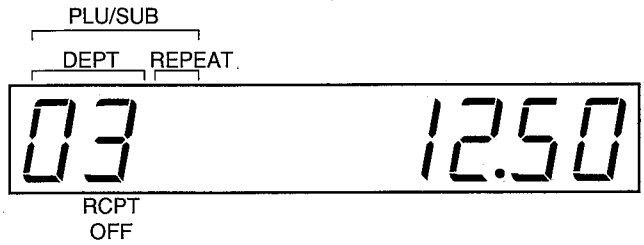
DISPLAYS

Operator display



Customer display (Pop-up type)

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

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...)

Receipting function status:
The indicator "_" appears in the ninth position when the receipting function is put in the OFF status.

Time: Appears in the far-right six positions ("A"-hour-minute or "P"-hour-minute) in the OP X/Z, REG, MGR, or VOID mode. "A" is displayed in the morning (AM), and "P" in the afternoon (PM). In the REG, MGR, or VOID mode, press the [#/TM/SBTL] 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.
o: Appears in the tenth place when the tax-included subtotal is displayed or when the amount tendered is smaller than the sale amount.
c: Appears in the tenth place when the [CONV] thru [CONV4] key is pressed to calculate a subtotal in foreign currency or your register is in the calculation mode.
F: Appears when a transaction is finalized by pressing the [CA/AT], [CA2], [CHK], [CH], or [CH2] key.
C: Appears when the change due amount is displayed.
U: Appears when the validation printing is compulsory.

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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 Preparing the paper roll and the ink roller

Before using the cash register, make sure the receipt and journal paper rolls are properly installed. For installing the receipt and journal paper rolls, follow the steps described in "3. Installing and removing the paper roll" under "MAINTENANCE."

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FOR THE OPERATOR

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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 "3. Installing and removing the paper rolls" under "MAINTENANCE."

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.

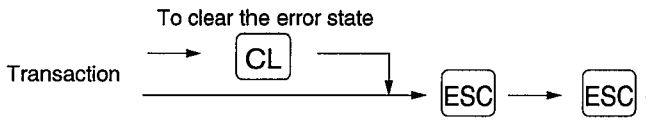
2 Error warning

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 [CA/AT], [CA2], [CHK], [CH], or [CH2] 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.

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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

→ Unit price * (max. 7 digits) → Department key

*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 number and press the DEPT# key.

When the open price entry type is selecte

→ Dept. number → DEPT# → DEPT#

Department entries (open price entries)

→ Dept. number → DEPT# → Unit price* (max. 7 digits) → DEPT#

*Less than the programmed upper limit amounts

PLU entries

Enter a PLU number and press the PLU/SUB key.

→ PLU number → PLU/SUB

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

→ PLU number → PLU/SUB → Unit price * (max. 7 digits) → PLU/SUB

*Less than the programmed upper limit amounts

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Example Selling these items for cash

Dept./PLU no.	Unit price
Dept. 3	$12.00
Dept. 5	($5.00)
Dept. 12	($2.00)
Dept. 13	$10.00
PLU no. 2	($1.50)
PLU no. 10	$12.00

Key operation

1200 [3]
[5]
12 [DEPT#]
13 [DEPT#] 1000 [DEPT#]
2 [PLU/SUB]
10 [PLU/SUB] 1200 [PLU/SUB]
[CA/AT]

Print

```
03*12.00
05  *5.00
12  *2.00
13*10.00
PL002
    *1.50
PL010
   *12.00

   *42.50 CA
```

■ Repeat entries

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

Example Selling these items for cash

Dept./PLU no.	Unit price	Q'ty
Dept. 5	$2.00	2
Dept. 13	$7.15	2
PLU no. 51	($2.85)	2
PLU no. 6 (Subdept.)	$5.00	2

Key operation

Repeated dept. entry (direct):
200 [5]
[5]

Repeated dept. entry (indirect):
13 [DEPT#]
715 [DEPT#]
[DEPT#]

Repeated PLU entry:
51 [PLU/SUB]
[PLU/SUB]

Repeated subdept. entry:
6 [PLU/SUB]
500 [PLU/SUB]
[PLU/SUB]
[CA/AT]

Print

```
05  *2.00
05  *2.00
13  *7.15
13  *7.15
PL051
    *2.85
PL051
    *2.85
PL006
    *5.00
PL006
    *5.00

   *34.00 CA
```


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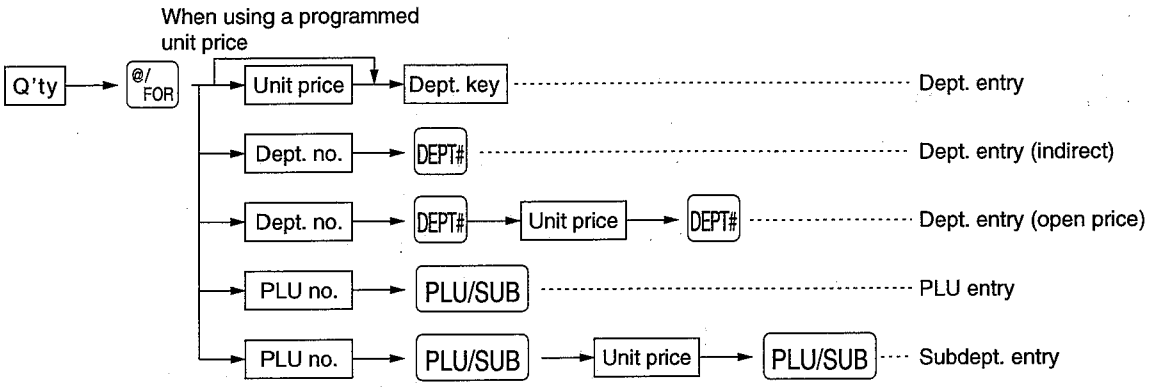
■ Multiplication entries

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 Selling these items for cash

Dept./PLU no.	Unit price	Q'ty
Dept. 3	$1.65	7.5
Dept. 14	($3.00)	8.25
PLU no. 13	($2.10)	15
PLU no. 60 (Subdept.)	$1.00	3

Key operation

7 [•] 5 [@/FOR]
165 [3]
8 [•] 25 [@/FOR]
14 [DEPT#]
15 [@/FOR]
13 [PLU/SUB]
3 [@/FOR]
60 [PLU/SUB]
100 [PLU/SUB]
[CA/AT]

Print

```
      7.5 Q
     1.65 @
03*12.38
     8.25 Q
     3.00 @
14*24.75
       15 Q
     2.10 @
PLU13
  *31.50
        3 Q
     1.00 @
PLU60
   *3.00

  *71.63CA
```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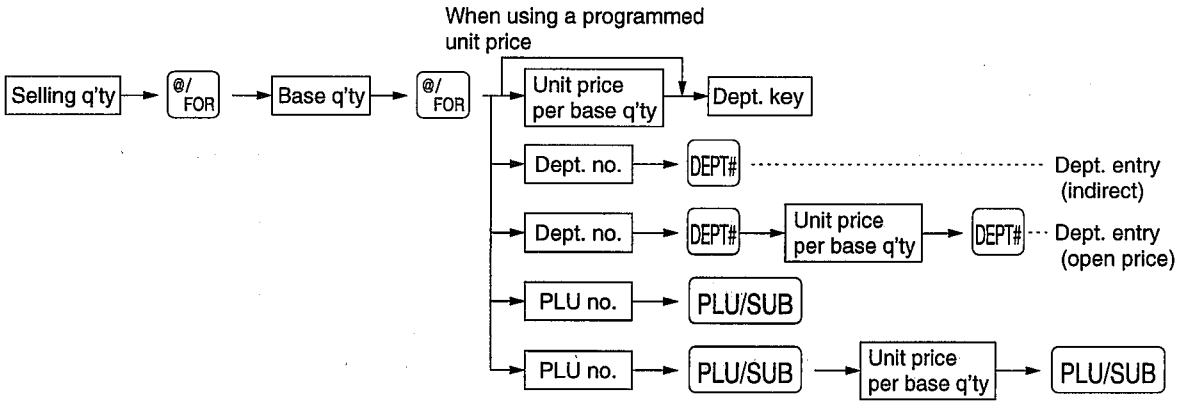
■ Split-pricing entries

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 Selling these items for cash

Dept./PLU no.	Base q'ty, unit price per base q'ty	Selling q'ty
Dept. 3	Ten pieces, $6.00	7 pieces
PLU no. 17	Five pieces, $3.00 (programmed)	8 pieces

Key operation

7 @/FOR
10 @/FOR
600 3
8 @/FOR
5 @/FOR
17 PLU/SUB
CA/AT

Print

```
          7 Q
         10
      6.00 @
03   *4.20
          8 Q
          5
      3.00 @
R017
     *4.80

     *9.00CA
```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■ 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 is finalized and the drawer opens as soon as you press a department key, [DEPT#] key or [PLU/SUB] key.

Example Selling a $2.50 item (department 2, programmed for SICS) for cash

Key operation	Print
250 For finishing the transaction → [2]	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 Display of subtotals

Your register provides these three types of subtotals:

■ Merchandise subtotal

Press the [MDSE SBTL] key at any point during a transaction. The net sale subtotal - not including tax - will appear in the display.

■ Taxable subtotal

Taxable 1 subtotal
Press the [TAX1 SHIFT] and [#/TM/SBTL] keys in this order at any point during a transaction. The sale subtotal of taxable 1 items will appear in the display.

Taxable 2 subtotal
Press the [TAX2 SHIFT] and [#/TM/SBTL] keys in this order at any point during a transaction. The sale subtotal of taxable 2 items will appear in the display.

Taxable 3 subtotal
Press the [TAX3 SHIFT] and [#/TM/SBTL] keys in this order at any point during a transaction. The sale subtotal of taxable 3 items will appear in the display.

Taxable 4 subtotal
Press the [TAX4 SHIFT] and [#/TM/SBTL] keys in this order at any point during a transaction. The sale subtotal of taxable 4 items will appear in the display.

■ Including-tax subtotal (full subtotal)

Press the [#/TM/SBTL] key at any point during a transaction. The sale subtotal including tax and the symbol "□" will appear in the display.

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3 Finalization of transaction

■ Cash or check tendering

Press the [#/TM/SBTL] key to get an including-tax subtotal, enter the amount tendered by your customer, then press the [CA/AT] or [CA2] key if it is a cash tender or press the [CHK] key if it is a check 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 Your customer pays $10.00 for an including-tax subtotal of $7.35.

Cash tendering

Key operation	Print
[#/TM/SBTL] 1000 [CA/AT]	*7.35 TL *10.00 CA *2.65 CG

Check tendering

Key operation	Print
[#/TM/SBTL] 1000 [CHK]	*7.35 TL *10.00 CK TD *2.65 CG

■ Mixed tendering (check + cash)

Example Your customer pays $10.00 by check and $5.00 in cash for an including-tax subtotal of $14.56.

Key operation	Print
[#/TM/SBTL] 1000 [CHK] 500 [CA/AT]	*14.56 TL *10.00 CK TD *5.00 CA *0.44 CG

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■ Cash or check sale that does not need any tender entry

Enter items and press the [CA/AT] or [CA2] key if it is a cash sale or press the [CHK] key if it is a check sale. Your register will display the total sale amount and the symbol "F."

Example Selling a $3.00 item (department 5) and another $7.15 item (PLU no. 10) for cash

Key operation	Print
300 [5] 10 [PLU/SUB] [CA/AT]	05 *3.00 PL010 *7.15 *10.15CA

In the case of check sale

*10.15CK

■ Charge (credit) sale

Enter items and press the corresponding charge keys ([CH] and [CH2]).

Example Selling a $32.50 item (department 3) and accepting the payment by charge 1 account

Key operation	Print
3250 [3] [CH]	03*32.50 *32.50CH1

Amount tendering operations (i.e., change calculations) can be achieved by the [CH] or [CH2] key when your register has been programmed to allow for it.

■ Mixed-tender sale (cash or check tendering + charge tendering)

Example Your customer pays $9.50 in cash and $40.00 by charge 2 for an including-tax subtotal of $49.50.

Key operation	Print
[#/TM/SBTL] 950 [CA/AT] [CH2]	*49.50 TL *9.50CA *40.00CH2

Note *Press the [CHK] key, the [CH] or [CH2] key in place of the [CA/AT] key when your customer makes payment by checks or by charge account.*

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4 Tax calculations

■ Automatic tax

When your register is programmed with a tax table (or tax rate) and the tax status of an individual department and PLU is programmed for taxable, it computes the automatic tax on any item that is entered directly into the department or indirectly via a related PLU.

Example Selling five $6.70 items (department 1, taxable 2) and one $7.15 item (PLU no. 8, taxable 1) for cash

Key operation	Print
5 [@/FOR]	5 Q
670 [1]	6.70 @
8 [PLU/SUB]	01*33.50TX2
[CA/AT]	PL008
	*7.15TX1
	*40.65 ST
	*0.43TX1
	*1.34TX2
	*42.42CA

■ Manual tax

Your machine allows you to enter tax manually after an item entry.

Example Selling an $8.00 item (department 3) for cash with 50 cents as tax

Key operation	Print
800 [3]	03 *8.00
50 [TAX]	*0.50TX
[CA/AT]	*8.50CA

■ Automatic-tax delete

You can delete the automatic tax on the taxable 1, taxable 2, taxable 3 and taxable 4 subtotal of each transaction by pressing the [TAX] key after the subtotal is displayed.

Example Selling a $7.25 item (department 1, taxable 2) and another $5.15 item (department 4, taxable 1) for cash and entering the sale as a non-taxable one

Key operation	Print
725 [1]	01 *7.25TX2
515 [4]	04 *5.15TX1
[TAX1 SHIFT] [#/TM/SBTL]	*0.00TX1
[TAX]	*0.00TX2
[TAX2 SHIFT] [#/TM/SBTL]	*12.40CA
[TAX]	
[CA/AT]	

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■ Tax status shift

Your machine allows you to shift the programmed tax status of each department, ⊖ and %2, percent key, or the PLU/SUB key by pressing the TAX1 SHIFT, TAX2 SHIFT, TAX3 SHIFT, and/or TAX4 SHIFT keys before those keys. After each entry is completed, the programmed tax status of each key is resumed.

Example Selling the following items for cash with their programmed tax status reversed :

- One $13.45 item of department 5 (non-taxable) as a taxable 1 item
- One $7.00 item of PLU no. 25 (non-taxable) as a taxable 1 and 2 item
- One $4.00 item of department 1 (taxable 2) as a non-taxable item
- Two $10.50 items of department 4 (taxable 1) as taxable 2 items

Key operation

1345 TAX1 SHIFT 5
25 TAX1 SHIFT TAX2 SHIFT PLU/SUB
400 TAX2 SHIFT 2
1050 TAX1 SHIFT TAX2 SHIFT 4
4
CA/AT

Print

```
05*13.45TX1
R025
    *7.00TX½
02  *4.00TX2
04*10.50TX2
04*10.50TX2
   *45.45 ST
    *1.23TX1
    *1.28TX2

   *47.96CA
```

Note *The entry of a multi-taxable item for PST or GST will be prohibited as follows (for Canada).*

In case of; Tax 1: PST, Tax 2: PST, Tax 3: PST, Tax 4: GST		In case of; Tax 1: PST, Tax 2: PST, Tax 3: GST, Tax 4: GST	
Taxable 1 and 2 item	prohibited	Taxable 1 and 2 item	prohibited
Taxable 1 and 3 item	prohibited	Taxable 1 and 3 item	allowed
Taxable 2 and 3 item	prohibited	Taxable 2 and 3 item	allowed
Taxable 1 and 4 item	allowed	Taxable 1 and 4 item	allowed
Taxable 2 and 4 item	allowed	Taxable 2 and 4 item	allowed
Taxable 3 and 4 item	allowed	Taxable 3 and 4 item	prohibited

5 Auxiliary entries

■ Percent calculations (premium or discount)

- Your register provides the percent calculation for the merchandise subtotal or each item entry.
- Percent rate: 0.01 to 99.99%

Percent calculation for the merchandise subtotal

Example Selling four $1.40 items of department 5 and two $2.25 items of department 3; all these items are sold for cash at a premium of 10%
(This example presupposes that a premium of 10% has been programmed for the % key.)

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Key operation	Print
4 [@/FOR]	4 Q
140 [5]	1.40 @
225 [3]	05 *5.60
[3]	03 *2.25
[MDSE SBTL]	03 *2.25
[%]	*10.10 ST
[CA/AT]	10.00% 1
	*1.01
	*11.11 CA

Percent calculation for item entries

Example Selling for cash an $8.00 item of department 3 at a discount of 15% and another $5.00 item of PLU no. 50 at a discount of 7.5%
(This example presupposes that a discount of 15% has been programmed for the [%2] key.)

Key operation	Print
800 [3]	03 *8.00
[%2]	-15.00% 2
50 [PLU/SUB]	-1.20
7 [•] 5 [%2]	PL050
[CA/AT]	*5.00
	-7.5% 2
	-0.38
	*11.42 CA

■ Discount entries

For discount or coupon tenderings, you may use the [⊖] or [⊖2] key.

Discount for the merchandise subtotal

Example Selling a $5.75 item of department 3 and another $7.50 item of PLU no. 51 for cash after subtracting the discount amount $1.00 from the total sale amount

Key operation	Print
575 [3]	03 *5.75
51 [PLU/SUB]	PL051
[MDSE SBTL]	*7.50
100 [⊖2]	*13.25 ST
[CA/AT]	-1.00⊖2
	*12.25 CA

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Discount for item entries

Example Selling a $6.75 item of department 5 for cash after subtracting the coupon amount 75¢

Key operation	Print
675 [5] 75 [⊖] [CA/AT]	05 *6.75 -0.75⊖1 *6.00CA

■ Refund entries

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

Example Receiving the following items returned:
One $2.50 item of department 3 and seven $2.10 items of PLU no.13

Key operation	Print
250 [RFND] [3] 7 [@/FOR] 13 [RFND] [PLU/SUB] [CA/AT]	03 -2.50RF -7 Q 2.10 @ PLU13 -14.70RF *17.20 CG

■ 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 7 digits and press the [#/TM/SBTL] key at any point during the entry of a sale. Your register will print it at once.

Example Selling a $15.00 item of department 6 by charge account to a customer whose code number is 1230

Key operation	Print
1230 [#/TM/SBTL] 1500 [6] [CH2]	0001230# 06*15.00 *15.00CH2

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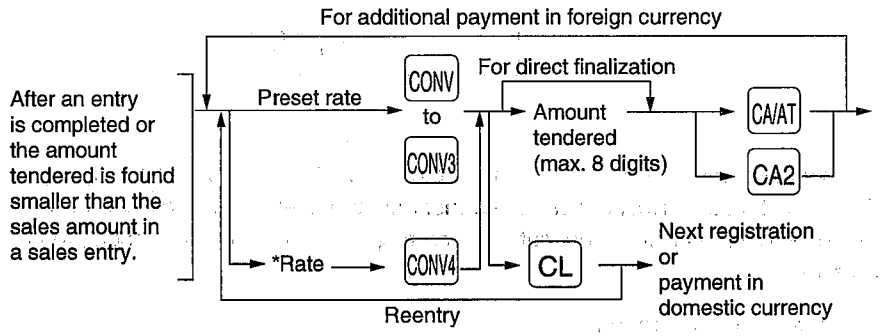
6 Payment treatment

■ Currency conversion

Your register allows payment entries of foreign currency. Pressing the [CONV] key creates a subtotal in foreign currency. Cash alone can be handled after currency conversion.

Procedure



*Rate: 0.0000 to 9999.9999

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

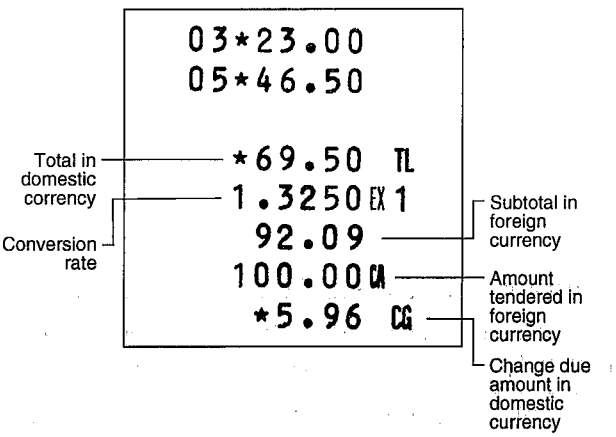
Example To convert the amount owed ($69.50) into the designated foreign currency

Key operation

Currency conversion →
2300 [3]
4650 [5]
[CONV]

Amount tendered in foreign currency →
10000 [CA/AT]

Print



■ Received on account entries

Procedure

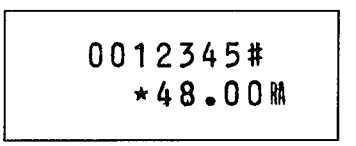
Amount (max. 8 digits) → [RA]

Example A customer whose code number is 12345 tenders $48.00 in cash for received on account.

Key operation

12345 [#/TM/SBTL]
4800 [RA]

Print



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■ Paid out entries

Procedure

Amount (max. 8 digits) → PO

Example You pay $30.00 in cash to a vendor whose code number is 6789.

Key operation	Print
6789 #/TM/SBTL 3000 PO	0006789# *30.00PO

■ No sale (exchange)

Simply press the 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 NS key, a no sale entry is achieved with a non-add code number printed.

Print
NS

■ Cashing a check

Procedure

Check amount → CHK

Example Cashing a check of $30.00 amount

Key operation	Print
3000 CHK	*30.00CK

7 Automatic sequencing key (AUTO) entries

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

Example Performing the transaction "Selling a $5.00 item (department 7) for cash" programmed for the AUTO 2 (AUTO 2 = 500 7 CA/AT)

Key operation	Print
AUTO 2	07 *5.00 *5.00CA

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CALCULATION MODE

You can use your register as a calculator machine in the calculation mode. To go into the calculation mode, press the [CAL] key while the mode switch is in the REG, MGR, or VOID position. In the calculation mode, you can use only keys on which a calculation mark such as [+] and [−] is placed.

■ Basic calculations

The following examples show basic calculation operations:

Example

- 45+32-18= ····· 45 [+] 32 [−] 18 [=]
- (63-57)x16= ····· 63 [−] 57 [×] 16 [=]
- (126÷3-37)x24-9= ····· 126 [÷] 3 [−] 37 [×] 24 [−] 9 [=]

■ Using the memory key

You can store or recall a value to or from the calculation memory using the [RM] key in the calculation mode.

Example

Storing "26" to the memory — Recalling "26" from the memory

- 26x(13+23)= ····· 26 [RM] 13 [+] 23 [×] [RM] [=]

Pressing the [RM] key twice will clear the memory.

Recalling a value made in another mode

After going into the calculation mode, pressing the [RM] key recalls the subtotal from the transaction in the registration mode. And after going back to the registration mode, pressing the [RM] key recalls the total made in the calculation mode.

Example Selling items whose subtotal is $26.75 and dividing the price by three

Mode	Key operation		Display	
(Registration)	Displaying a subtotal	[#/TM/SBTL]	o	24.00
↓	Going into the calculation mode	[CAL]	c	0
(Calculation)	Recalling the subtotal	[RM]	c	24.00
↓	Dividing the subtotal by three	[÷] 3 [=]	c	8.00
(Registration)	Going back to the registration mode and displaying the subtotal	[CAL]	o	24.00
	Making amount tendered operation for two persons	[RM] [CA/AT]	o	16.00
		[RM] [CA/AT]	o	8.00
	Receiving the rest from the third person	[CA/AT]	F	8.00

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CORRECTION

1 Correction of the last entry (direct void)

If you make an incorrect entry relating to a department, PLU/subdepartment, percentage ([%] or [%2]), discount ([⊖] or [⊖2]) or manual tax, you can void this entry immediately by pressing the [VOID] key.

Example

Key operation

1250 [6]
[VOID]
2 [PLU/SUB]
[%2]
[VOID]
520 [8]
40 [TAX]
[VOID]
[CA/AT]

Print

```
06*12.50
06-12.50VD
PLU02
    *1.50
   -5.00%  2
    -0.08
    *0.08VD
08  *5.20
    *0.40TX
    -0.40VD

    *6.70CA
```

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

With the [VOID] 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 [CA/AT] key). This function is applicable to plus department and PLU/subdepartment entries only.

Example

Key operation

Correction of a depertment entry: 1310 [6], 1755 [7], 58 [PLU/SUB]

Correction of a PLU entry (indirect PLU): →1310 [VOID] [6], → 58 [VOID] [PLU/SUB], [CA/AT]

Print

```
06*13.10
07*17.55
PLU58
    *3.00
06-13.10VD
PLU58
    -3.00VD

   *17.55CA
```

Note *To void entries that include a tax status shift, press the [TAX1 SHIFT], [TAX2 SHIFT], [TAX3 SHIFT], and/or [TAX4 SHIFT] keys prior to the [VOID] key.*

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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
Subtotal void	1310 [1] 35 [PLU/SUB] [#/TM/SBTL] [VOID] [#/TM/SBTL]	01 *13.10 PLU35 *3.00 *16.10 ST -16.10 VD *0.00 TL

4 Correction of incorrect entries not handled by the direct or indirect 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.

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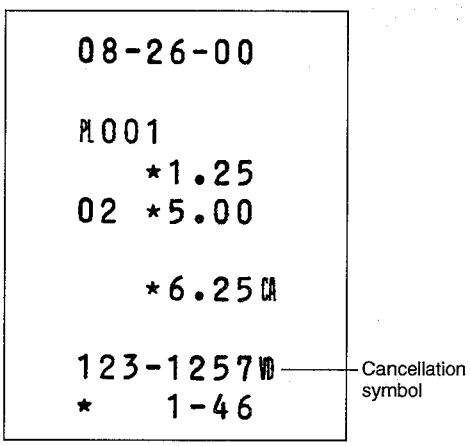
CORRECTION AFTER FINALIZING A TRANSACTION

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 or indirect void), follow this procedure.

1. Turn the mode switch to the VOID 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 register totalizer.)

Print



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 Selling a $15.00 item (department 2) for cash and subtracting the coupon amount $2.50 from the sale amount. (This example presumes that the register has been programmed not to allow coupon entries over $2.00.)

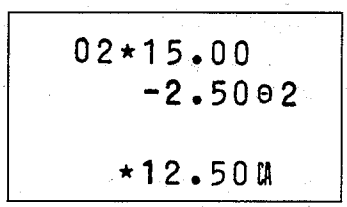
Key operation

REG-mode entries
1500 [2]
Error····· 250 [⊖2]
[CL]

Turn the mode switch to the MGR position.
250 [⊖2]

Return the mode switch to the REG position. [CA/AT]

Print



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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 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	Print
850 [2] [CA/AT]	(Journal)
For receipting→ [RCPT]	(Receipt)

(Journal)

```
08-26-00
02 *8.50
   *8.50 CA
123-1263
*    1-53
```

(Receipt)

```
08-26-00

02 *8.50

   *8.50 CA

123-1263
*    1-53
```

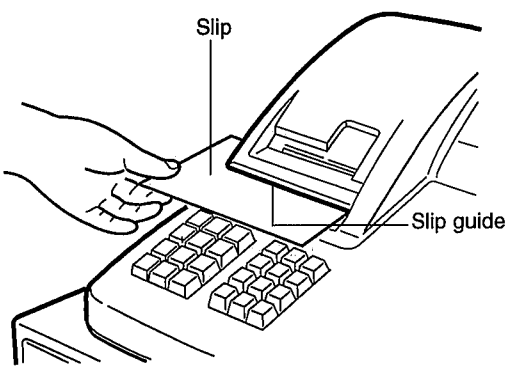
2 Validation printing function

Your register can print a validation on checks, coupons, refunds, etc.

■ 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 [PRINT] key.

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



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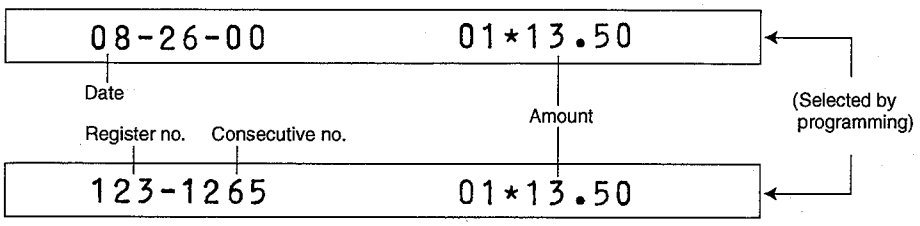
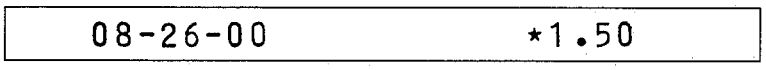
■ Validation printing examples

Validation printing of item entries

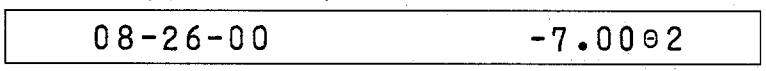
- Department entry



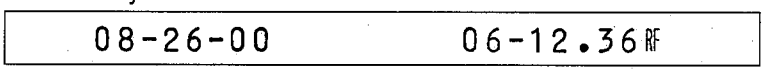
- PLU entry



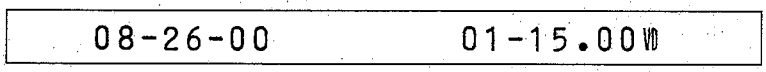
- Discount entry (⊖1 and ⊖2)



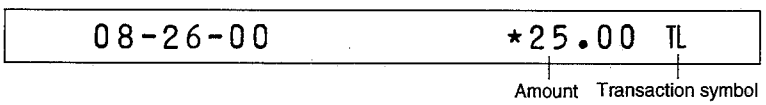
- Refund entry



- Void entry



Validation printing after the finalization of a transaction



	Transaction symbol	Amount
[CA/AT] or [CA2] key		
• When an amount tendered entry is made	**TL**	Sales amount
• When no amount tendered entry is made	**CA or CA2**	Sales amount
[CHK] key		
• When an amount tendered entry is made	**CKTD or TL**	Amount tendered (depending upon setup)
• When no amount tendered entry is made	**CK**	Sales amount
• When a check cashing operation is made	**CK**	Amount for check cashing
[CH] or [CH2] key	**CH1 or CH2**	Sales amount
[RA] key	**RA**	Amount received on account
[PO] key	**PO**	Amount paid out

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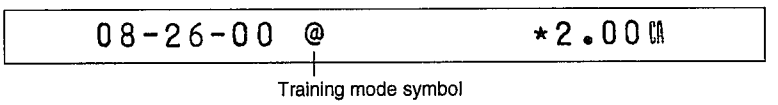
Validation printing of the training mode



Note

- *When you make an entry for which compulsory validation printing has been programmed, the "⊔" 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.*

1. *Turn the mode switch to the "MGR" position.*
2. → [•] → [PRINT]

■ Validation slip specification

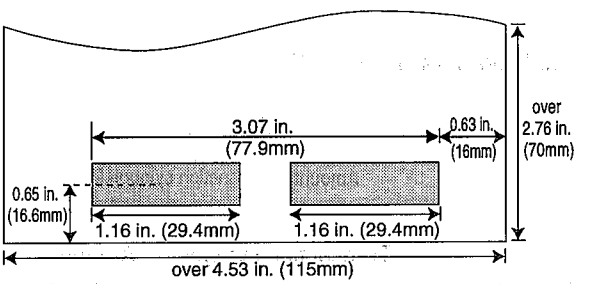
Make validation slips according to the following specification. The use of any slips other than specified causes the printer to malfunction.

Thickness and weight:

- Plain paper alone
  - Plain paper: 0.0035 to 0.0055 in. (0.09 to 0.14 mm) thickness
    0.18 to 0.35 lbs. (82 to 157 g/m²) in weight
- Plain paper + carbon
  - Plain paper (thick paper): 0.0035 to 0.0075 in. (0.09 to 0.19 mm) thickness
    0.18 to 0.35 lbs. (82 to 157 g/m²) in weight
  - Pressure sensitive paper: 0.0031 in. (0.08 mm) thickness
  - Carbon: 0.0012 in. (0.03 mm) thickness
  - Plain paper (thin paper): 0.0024 in. (0.06 mm) thickness
    0.10 lbs. (47 g/m²) in weight

Any combination of the above papers is allowed unless the total thickness exceeds 0.012 in. (0.3 mm). However, the thick plain paper cannot be combined with any paper.

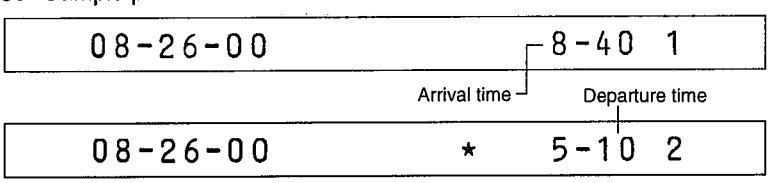
Printing position



3 Printing of the employee arrival and departure times

Your 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 → [PRINT]
   - Departure time : Numeric key 2 → [PRINT]
3. Sample printout



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

Procedure

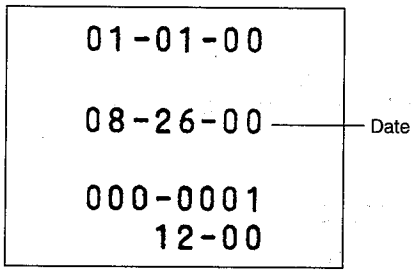
XXXXXX → [#/TM/SBTL]
Date (five or six digits)

Example Aug. 26, 2000

Key operation

082600 [#/TM/SBTL]

Print



■ Time

Set the time using the military time (24-hour) system. For example, when the time is set to 2:30 AM, enter 230; and when it is set to 2:30 PM, enter 1430. The time will be printed and displayed on the real-time system. 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

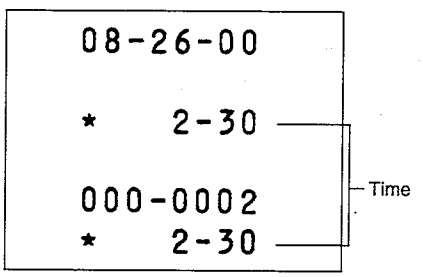
XXXX → [#/TM/SBTL]
Time (max. four digits)

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

Key operation

1430 [#/TM/SBTL]

Print



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■ 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 → [@/FOR] → [#/TM/SBTL]

Example Setting the count start number as "1001"

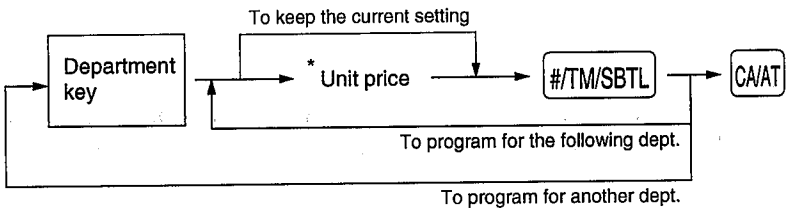
Key operation	Print
1000 [@/FOR] [#/TM/SBTL]	08-26-00 1000 ← Consecutive number 000-1000 ← Consecutive number * 2-30

2 Programming for departments

Your machine is equipped with 10 standard departments and up to 40 optional 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 number 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. • The current unit price will be displayed.	[1]	01 0.00
2. Enter the unit price "1000."	1000	01 1000
3. Press the [#/TM/SBTL] key to program this setting.	[#/TM/SBTL]	02 0.00

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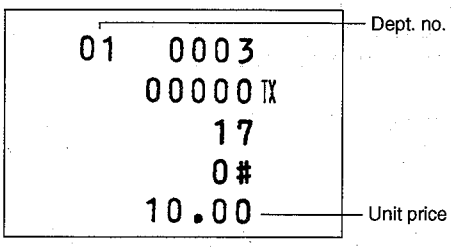
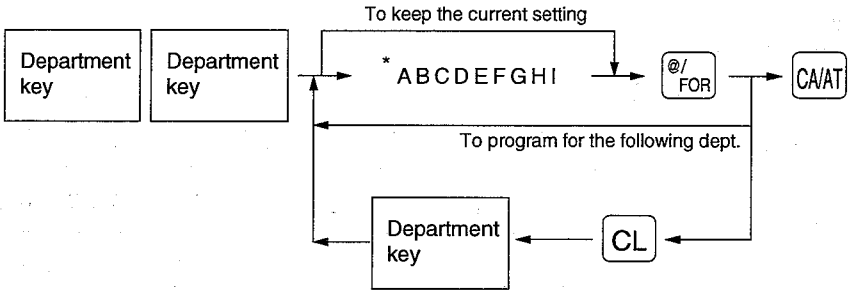
4. Press the CA/AT key to finalize the programming and generate a programming report. CA/AT 0.00

Print



■ Functional selection

Procedure



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

*	Item		Selection	Entry
	A	Sign (plus/minus)	Plus	0
			Minus	1
	B	Always enter 0.		0
	C	Tax 4 status	Non-taxable	0
			Taxable	1
	D	Tax 3 status	Non-taxable	0
			Taxable	1
	E	Tax 2 status	Non-taxable	0
			Taxable	1
	F	Tax 1 status	Non-taxable	0
			Taxable	1
	G	Normal/SICS (Single Item Cash Sale)	Normal	0
			SICS	1
	H	Significant digit for HALO		1 thru 9
	I	Number of zeros to follow the significant digit for HALO		0 thru 7

Note

Sign (plus/minus)

- *Assign a plus sign to departments for normal sales transactions.*
- *Assign a minus sign to departments for minus transactions.*

Tax status (taxable 1 thru 4 / non-taxable)

- *When an entry of a taxable department is made in a transaction, tax is automatically computed according to the associated tax table or rate.*

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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 [CA/AT] 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.*
- *HI is the same as H x 10^{I}.*
  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 17, however, the upper limit amount is 99999.99.

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

1. Press the department 4 key twice. [4] [4]

A B C D E F G H I

0 0 0 0 0 0 0 1 7

- 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 0 0 0 0 0 0 1 7 → 0 0 0 0 0 0 0 1 7

[00] ·····Moves the blinker to the left.

0 0 0 0 0 0 0 1 7 → 0 0 0 0 0 0 0 1 7

- Enter the figure. 000001095

0 0 0 0 0 1 0 9 5

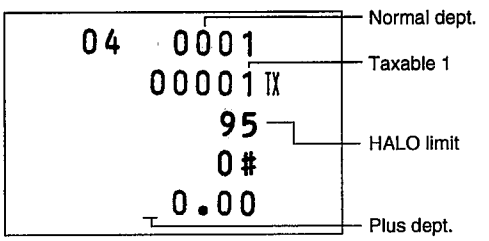
3. Press the [⊕/FOR] key to program this setting. [⊕/FOR]

0 0 0 0 0 0 0 1 7

4. Press the [CA/AT] key to finalize the programming and generate a programming report. [CA/AT]

0 . 0 0

Print



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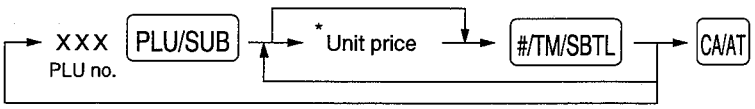
3 Price lookup (PLU) programming

This register can have a maximum of 600 PLUs.
A PLU number can be up to three digits (free code).

■ Unit price

Procedure



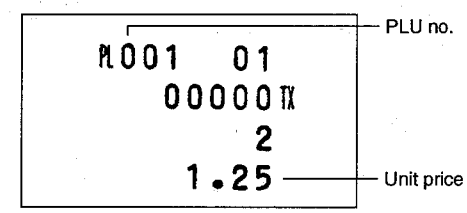
*Unit price: max. seven digits ($99999.99)

Note *The preset amount will work as the unit price for PLUs and as the HALO amount for subdepartments. In the case of subdepartments, a zero preset prevents any amount entry and a 99999.99 preset means no limitation. In the case of PLUs, zero and 99999.99 presets have no special meaning. (i.e. a 0 amount preset is available.)*

Example Programming the unit price $1.25 for PLU no. 1

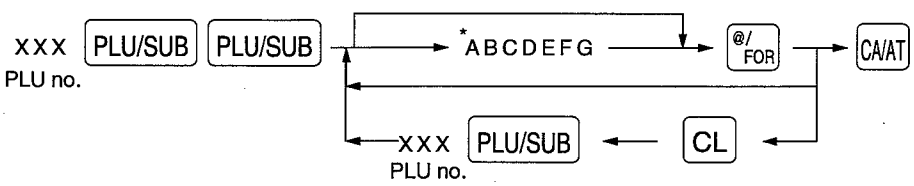
1. Enter the PLU number "1" and press the PLU/SUB key.	1 PLU/SUB	001 0.00
2. Enter the unit price "125."	125	001 125
3. Press the #/TM/SBTL key to program this setting.	#/TM/SBTL	002 0.00
4. Press the CA/AT key to finalize the programming and generate a programming report.	CA/AT	0.00

Print



■ Functional selection

Procedure



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* Item		Selection	Entry
A	Sign (plus/minus)	Plus	0
		Minus	1
B	Always enter 0.		0
C	Tax 4 status	Non-taxable	0
		Taxable	1
D	Tax 3 status	Non-taxable	0
		Taxable	1
E	Tax 2 status	Non-taxable	0
		Taxable	1
F	Tax 1 status	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 (taxable 1 thru 4/non-taxable)

- *A PLU not programmed for any of Tax 1 thru Tax 4 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 number and depressing the* [PLU/SUB] *key.*
- *Subdepartment mode: Allows a subdepartment entry to be made by entering a unit price and assigned PLU number 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.*

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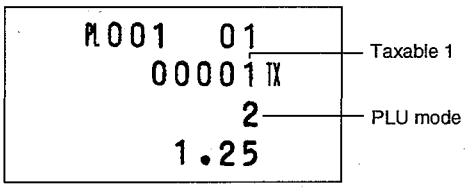
Example Programming for PLU no. 1 as follows: A=0, B=0, C=0, D=0, E=0, F=1, and G=2.

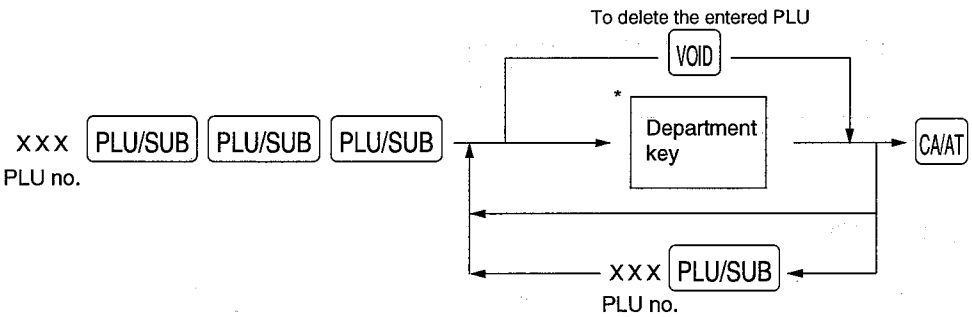
		A B C D E F G
1. Enter the PLU number "1" and press the PLU/SUB key twice.	1 PLU/SUB PLU/SUB	P 0 0 0 0 0 0 2
2. Set the parameters A to G. •You can go to the desired position with the 00 or • key.	0000012	P 0 0 0 0 0 1 2
3. Press the @/FOR key to program this setting.	@/FOR	P 0 0 0 0 0 0 2
4. Press the CA/AT key to finalize the programming and generate a programming report.	CA/AT	0 . 0 0

Print



■ PLU assignment to departments

Procedure



*Department key to be associated with the entered PLU

Note

- *You may enter a department number 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:*
  - *Type (Hash/Normal)*
  - *SICS (Single item cash sale)/Normal*
  - *Item validation print compulsory/non-compulsory*

Example Assigning PLU nos. 1 and 2 to department 2

1. Enter the PLU number "1" and press the PLU/SUB key three times.	1 PLU/SUB PLU/SUB PLU/SUB	0 0 1 0 1
2. Press the the department 2 key to assign PLU no. 1 to department 2.	2	0 0 2 0 1

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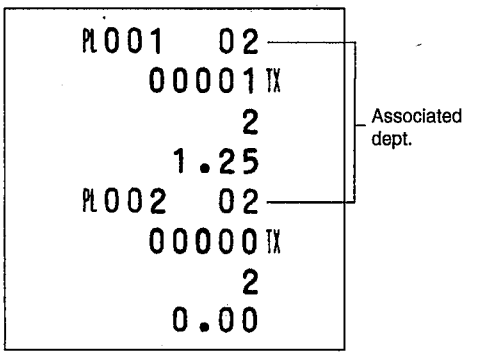
3. Press the department 2 key to assign PLU no. 2 to department 2. [2]

003	01

4. Press the [CA/AT] key to finalize the programming and generate a programming report. [CA/AT]

0.00

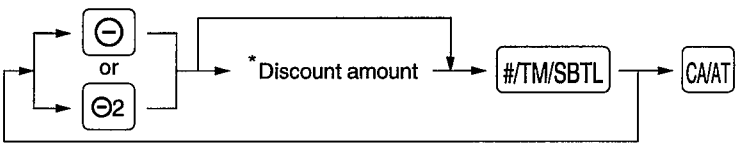
Print



4 Programming for discount keys

■ Discount amount ([⊖])

Procedure



*Discount amount: 0 - 9999999

Example Assigning $10.00 to the [⊖] key

1. Press the [⊖] key. [⊖]

01	0.00

2. Enter the discount amount "1000." 1000

01	1000

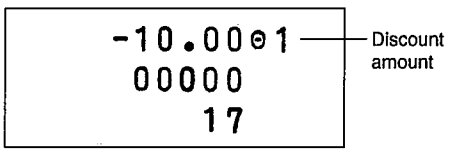
3. Press the [#/TM/SBTL] key to program this setting. [#/TM/SBTL]

01	10.00

4. Press the [CA/AT] key to finalize the programming and generate a programming report. [CA/AT]

0.00

Print



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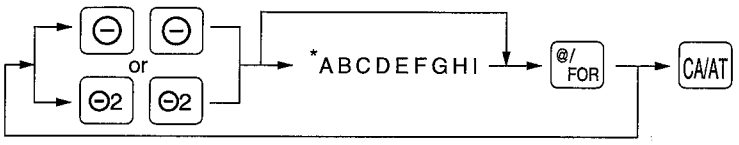
■ High amount lockout (HALO) and tax status (⊖)

Procedure



*	Item	Selection	Entry
A	Always enter 1.		1
B	Always enter 0.		0
C	Tax 4 status	Non-taxable	0
		Taxable	1
D	Tax 3 status	Non-taxable	0
		Taxable	1
E	Tax 2 status	Non-taxable	0
		Taxable	1
F	Tax 1 status	Non-taxable	0
		Taxable	1
G	Always enter 0.		0
H	Significant digit for HALO		1 thru 9
I	Number of zeros to follow the significant digit for HALO		0 thru 7

Note ***HALO (High Amount Lockout)***

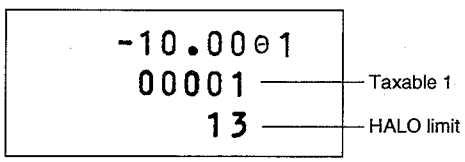
HI is the same as H x 10^{I}.

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 17, however, the upper limit amount is 99999.99.

Example Programming for the ⊖ key as follows: A=1, B=0, C=0, D=0, E=0, F=1, G=0, H=1, and I=3.

		A B C D E F G H I
1. Press the ⊖ key twice.	⊖ ⊖	1 0 0 0 0 0 0 1 7
2. Set the parameters A to I. •You can go to the desired position with the 00 or • key.	100001013	1 0 0 0 0 1 0 1 3
3. Press the @/FOR key to program this setting.	@/FOR	1 0 0 0 0 1 0 1 3
4. Press the CA/AT key to finalize the programming and generate a programming report.	CA/AT	0 . 0 0

Print



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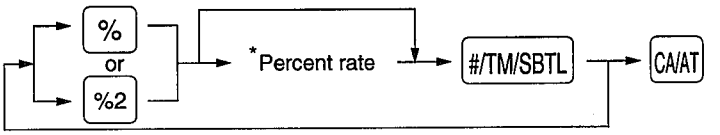
5 Programming for percent keys

■ Percent rate ([%])

Procedure



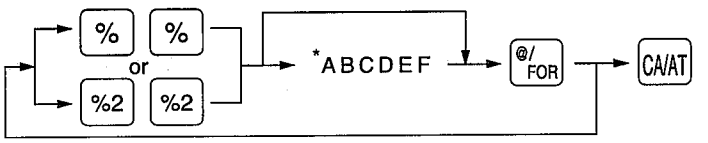
* Percent rate: 0.00 - 100.00

Example Assigning 10.25% to the [%] key

Key operation	Print
[%] 1025 [#/TM/SBTL] [CA/AT]	-10.25% 1 (Percent rate) 00000

■ Sign (+/-) and tax status ([%])

Procedure



*	Item	Selection	Entry
A	Sign (plus/minus)	Plus (premium)	0
		Minus (discount)	1
B	Always enter 0.		0
C	Tax 4 status	Non-taxable	0
		Taxable	1
D	Tax 3 status	Non-taxable	0
		Taxable	1
E	Tax 2 status	Non-taxable	0
		Taxable	1
F	Tax 1 status	Non-taxable	0
		Taxable	1

Example Programming for the [%] key as follows: A=1, B=0, C=0, D=0, E=1, and F=0.

Key operation	Print
[%] [%] 100010 [@/FOR] [CA/AT]	-10.25% 1 (Discount, Taxable 2) 00010

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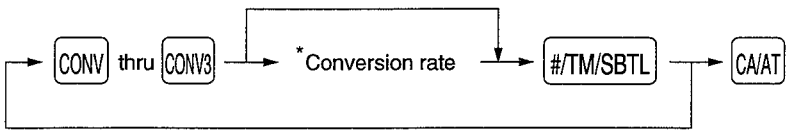
6 Programming for conversion keys

■ Currency conversion rate (CONV)

Procedure



* Currency conversion rate: 0.0000 - 9999.9999

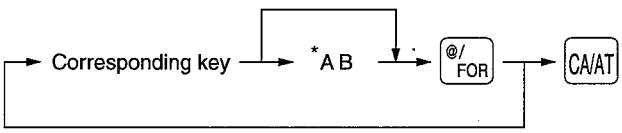
Example Assigning 1.325 to the CONV key

Key operation	Print
CONV 13250 #/TM/SBTL CA/AT	1.3250 EX 1 — Conversion rate

7 Programming for the CA2, RA, PO, CH, CHK, and TAX keys

■ High amount lockout (HALO) (CA2, RA, PO, CH, CHK, and TAX)

Procedure



* AB is the same as A x 10^B
  A: Significant digit (1 thru 9)
  B: Number of zeros to follow the significant digit (0 thru 8)

Example Programming a HALO limit of $1000.00 (15) for the CH2 key

Key operation	Print
CH2 15 @/FOR CA/AT	15 CH 2 — HALO limit 00000000

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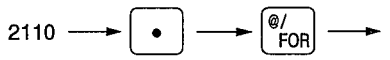
Job-Code-Based Programming

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.

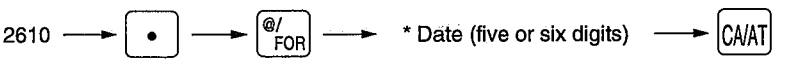


All the items which can be programmed by the job-code-based programming are listed on this page and the following, and those which can also be programmed by the direct programming are marked with the symbol " Direct " that follows job codes.

1 Setting the date and time

■ Date 2610 Direct

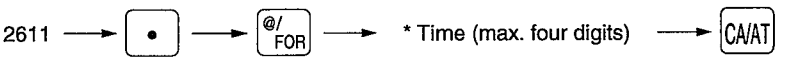
Procedure



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

■ Time 2611 Direct

Procedure



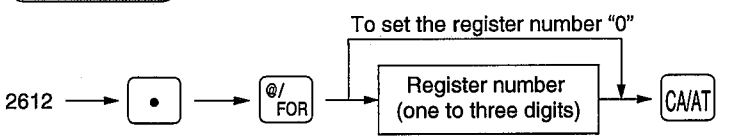
*Time: Enter the hour and minute in this order.

2 Setting the register and consecutive numbers

■ Register number 2612

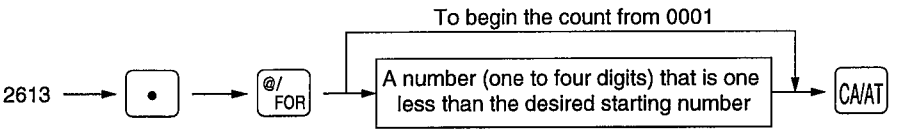
When your store has two or more registers, it is practical to set unique register numbers for their identification.

Procedure



■ Consecutive number 2613 Direct

Procedure



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3 Programming for the automatic tax calculation function

■ Tax table (applicable to the add-on tax) 2710

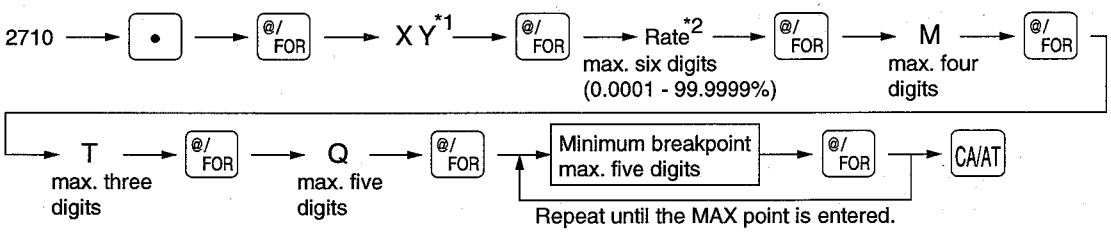
Sample tax table (6%)

Taxes	Range of sales amount		
	Minimum breakpoint		Maximum breakpoint
.00	.01	to	.10
.01 ← T	.11 ← Q	to	.22
.02	.23	to	.38
.03	.39	to	.56
.04	.57	to	.72
.05	.73	to	.88
.06	.89	to	1.10
.07	1.11 ← M1	to	1.22
.08	1.23	to	1.38
.09	1.39	to	1.56
.10	1.57	to	1.72
.11	1.73	to	1.88
.12	1.89	to	2.10
.13	2.11 ← M2	to	2.22

A: Difference between the minimum breakpoint and the next one (¢)	
–	B: Non-cyclic
10 (0.11 - 0.01)	
12 (0.23 - 0.11)	C: Cyclic 1
16 (0.39 - 0.23)	
18 (0.57 - 0.39)	
16 (0.73 - 0.57)	
16 (0.89 - 0.73)	
22 (1.11 - 0.89)	
12 (1.23 - 1.11)	D: Cyclic 2
16 (1.39 - 1.23)	
18 (1.57 - 1.39)	
16 (1.73 - 1.57)	
16 (1.89 - 1.73)	
22 (2.11 - 1.89)	

T: The tax amount collected on the minimum taxable amount (Q)
Q: The minimum taxable amount
M1: The maximum value of the minimum breakpoint on a regular cycle (C)
We call this point "MAX point."
M2: The maximum value of the minimum breakpoint on another regular cycle (D)
We call this point "MAX point."
M: Range of the minimum breakpoint on a regular cycle: difference between Q and M1 or between M1 and M2

Procedure



*1 **X:** Enter "1" when the difference between the minimum breakpoint and the preceding minimum breakpoint is $1.00 or more. Enter "0" or nothing when the difference is 99¢ or less.
Y: Enter the tax table number. For example, when your tax table is to be programmed as tax table 1, enter "1" and when it is to be programmed as tax table 4, enter "4".

*2 If the rate is fractional (e.g. 4-3/8%), convert the fractional portion (3/8%) to its decimal equivalent (0.378), then enter the resulting rate (4.378). Note that the nominal rate (R) is generally indicated on the tax table.

- **If the tax is not provided for every cent, modify the tax table by setting the tax for every cent in the following way.**
When setting the tax, consider the minimum breakpoint corresponding to unprovided tax to be the same as the one corresponding to the tax provided on a large amount.

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Sample tax table (8%)

Tax	Minimum breakpoint
.00	.01
.01	.11
.02	.26
.03	.47
.04	.68
.06	.89
.09	1.11
.10	1.26
.11	1.47
.12	1.68
.14	1.89
.17	2.11

Modification of the left tax table

Tax	Minimum breakpoint
.00	.01
.01 ← T	.11 ← Q
.02	.26
.03	.47
.04	.68
.05	.89
.06	.89
.07	1.11 ← M1
.08	1.11
.09	1.11
.10	1.26
.11	1.47
.12	1.68
.13	1.89
.14	1.89
.15	2.11 ← M2
.16	2.11
.17	2.11

Breakpoint difference (¢)	
1	B: Non-cyclic
10 (0.11-0.01)	
15 (0.26-0.11)	C: Cyclic 1
21 (0.47-0.26)	
21 (0.68-0.47)	
21 (0.89-0.68)	
0 (0.89-0.89)	
22 (1.11-0.89)	
0 (1.11-1.11)	
0 (1.11-1.11)	
15 (1.26-1.11)	D: Cyclic 2
21 (1.47-1.26)	
21 (1.68-1.47)	
21 (1.89-1.68)	
0 (1.89-1.89)	
22 (2.11-1.89)	
0 (2.11-2.11)	
0 (2.11-2.11)	

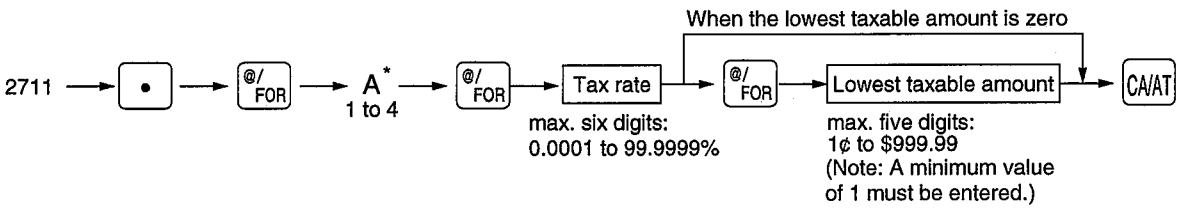
From the modified tax table above;
Rate = 8(%), T = $0.01 = 1¢, Q = $0.11 = 11¢, M1 = 1.11, M2 = 2.11, M = 100

Note

- *A maximum of 72 breakpoints can be entered for each tax table. However, when the breakpoint difference is $1.00 or more, 36 breakpoints can be entered. If number of breakpoints exceeds its capacity, use the manual entry approach.*
- *If you make an incorrect entry before entering the M in programming a tax table, cancel it with the [CL] key; and if you make an error after entering the M, cancel it with the [#/TM/SBTL] key. Then program again from the beginning.*

■ Tax rate 2711

Procedure



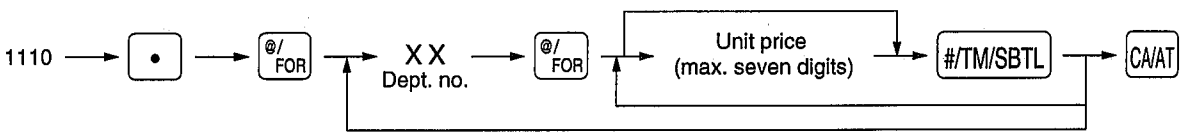
*A: When you program a tax rate as tax rate 1, enter "1"; when you program it as tax rate 2, enter "2"; when you program it as tax rate 3, enter "3"; and when you program it as tax rate 4, enter "4."

Note *If you make an incorrect entry before pressing the third [@/FOR] key in programming a tax rate, cancel it with the [CL] key; and if you make an error after pressing the third [@/FOR] key, cancel it with the [#/TM/SBTL] key. Then program again from the beginning.*

4 Programming for departments

■ Unit price 1110 Direct

Procedure



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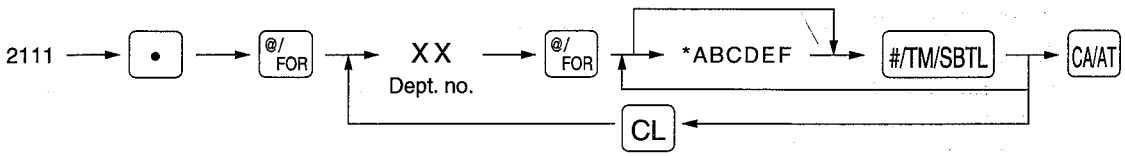
■ Functional selection 1 2111 Direct

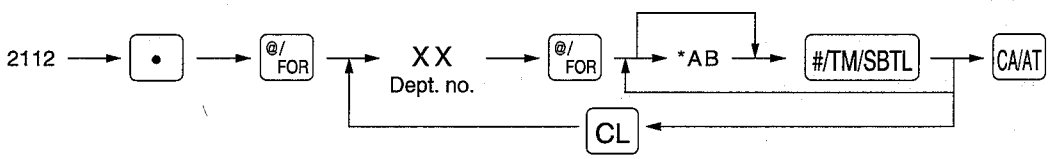
Procedure



*	Item		Selection	Entry
	A	Sign (plus/minus)	Plus	0
			Minus	1
	B	Always enter 0.		0
	C	Tax 4 status	Non-taxable	0
			Taxable	1
	D	Tax 3 status	Non-taxable	0
			Taxable	1
	E	Tax 2 status	Non-taxable	0
			Taxable	1
	F	Tax 1 status	Non-taxable	0
			Taxable	1

■ Limit amount (HALO) 2112 Direct

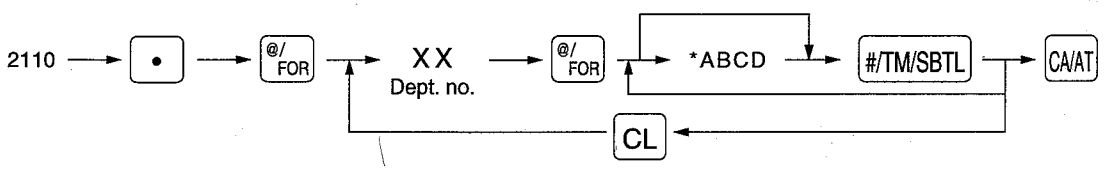
Procedure



* AB is the same as A x 10^B.
A: Significant digit (1 thru 9)
B: Number of zeros to follow the significant digit (0 thru 7)

■ Functional selection 2 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	Hash/Normal	Normal	0
			Hash	1
	D	Type of unit price entry	Open and preset	3
			Preset only	2
			Open only	1
			Inhibit department key	0

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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

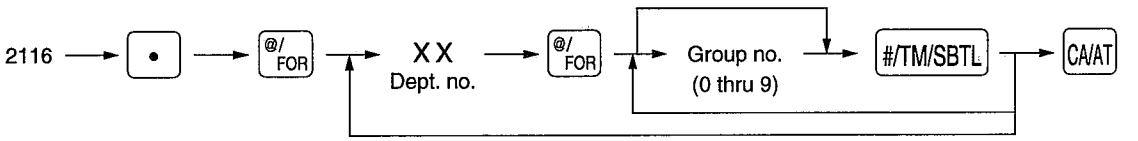
Hash / Normal

- *A hash department is used to enter the amount of a special "sale", such as a gift certificate sale or for the receipt of payment for utility bills, theatre tickets, etc., i.e. "non-sales" registrations. Any amounts entered in this department are not added to the grand total except tax amounts.*
- *If your register is programmed for "Hash dept. not programmable" by your dealer, you cannot program the department for those operations. So contact your dealer if you need them.*

■ Group number 2116

You can assign departments to a maximum of nine groups (1 thru 9). Assign desired departments to any of the nine groups. This programming enables you to take group sales reports.

Procedure

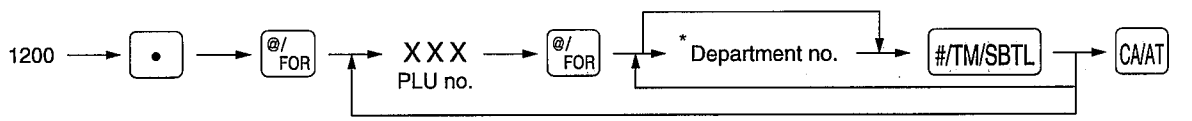


Note *If you assign the group no. 0, the department does not belong to any group.*

5 Price lookup (PLU) programming

■ PLU assignment to departments 1200 Direct

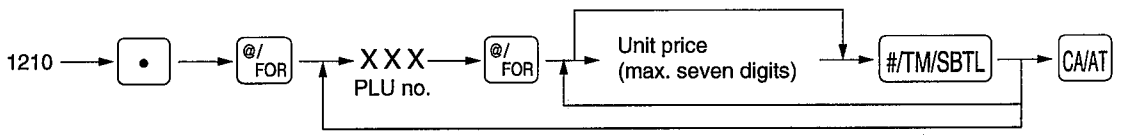
Procedure



* Department number to be associated with the entered PLU

■ Unit price 1210 Direct

Procedure



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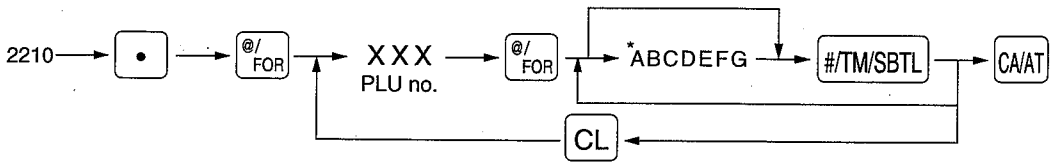
■ Functional selection 2210 Direct

Procedure



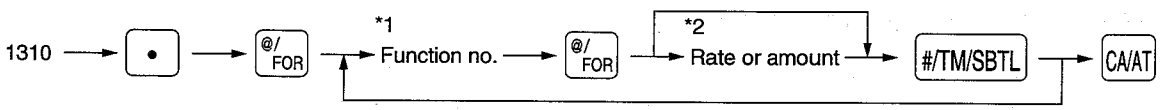
* Item		Selection	Entry
A	Sign (plus/minus)	Plus	0
		Minus	1
B	Always enter 0.		0
C	Tax 4 status	Non-taxable	0
		Taxable	1
D	Tax 3 status	Non-taxable	0
		Taxable	1
E	Tax 2 status	Non-taxable	0
		Taxable	1
F	Tax 1 status	Non-taxable	0
		Taxable	1
G	Mode	Prohibit mode	0
		Subdepartment mode	1
		PLU mode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

Note *A PLU not programmed for any of Tax 1 thru Tax 4 is registered depending on the tax status of the department which the PLU belongs to.*

6 Programming for miscellaneous keys

■ Rate and discount amount (%, CONV, and ⊖) 1310 Direct

Procedure



*1: Function no.
1: For the ⊖ key
2: For the ⊖2 key
3: For the % key
4: For the %2 key
5: For the CONV key
6: For the CONV2 key
7: For the CONV3 key

*2: Rate or amount
0 — 9999999 (Discount amount)
0.00 — 100.00 (Percent rate)
0.0000 — 9999.9999 (Currency conversion rate)

Note *In order for a specific function to be programmed, the related key must be assigned on the keyboard.*

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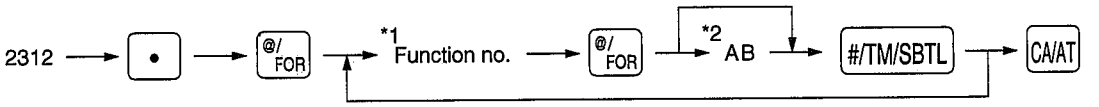
■ Limit amount (HALO) (⊖, TAX, RA, and PO) 2312 Direct

Procedure

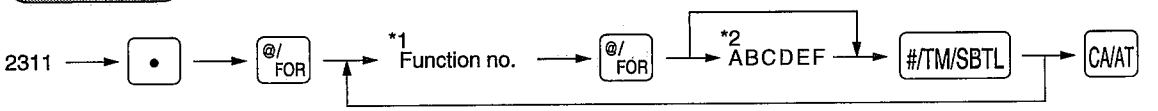


*1: Function no.
- 1: For the ⊖ key
- 2: For the ⊖2 key
- 9: For the TAX key
- 10: For the RA key
- 11: For the PO key

2: AB is the same as A x 10^B.
- A: Significant digit (0 thru 9)
- B: Number of zeros to follow the significant digit
  - 0 thru 7 (for the ⊖, ⊖2, and TAX keys)
  - 0 thru 8 (for the RA and PO keys)

■ Sign (+/-) and tax status (%, ⊖) 2311 Direct

Procedure



*1: Function no.
1: For the ⊖ key 2: For the ⊖2 key 3: For the % key 4: For the %2 key

*2:

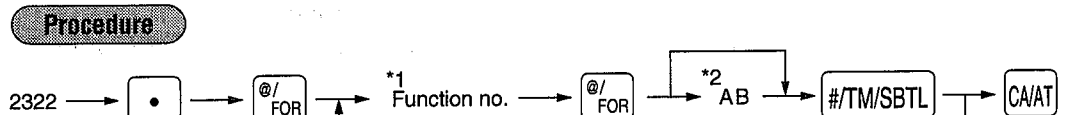
Item		Selection	Entry
A	Sign (plus/minus)	Plus (premium)	0
		Minus (discount)	1
B	Always enter 0.		0
C	Tax 4 status	Non-taxable	0
		Taxable	1
D	Tax 3 status	Non-taxable	0
		Taxable	1
E	Tax 2 status	Non-taxable	0
		Taxable	1
F	Tax 1 status	Non-taxable	0
		Taxable	1

Note
- *You cannot assign the "+" sign to the ⊖ keys. So always program "1" for the parameter A.*
- *Assigning of the "+" or "-" sign is available only for percent keys.*

7 Programming for the media keys

■ High amount lockout (HALO) for media keys 2322 Direct

Procedure



*1: Function no.
- 13: For the CA2 key
- 14: For the CHK key
- 15: For the CH key
- 16: For the CH2 key

*2: AB is the same as A x 10^B.
- A: Significant digit (1 thru 9)
- B: Number of zeros to follow the significant digit (0 thru 8)

You can set up AB = 18 for no limitation.

Note *In order for a specific function to be programmed, the related key must be assigned on the keyboard.*

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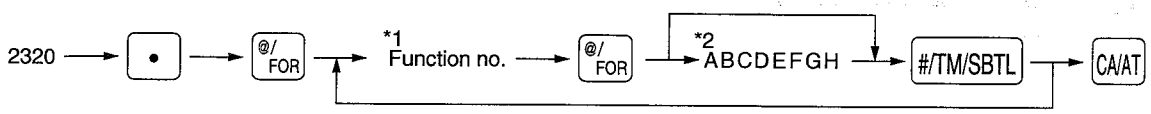
■ Functional selection 2320

Procedure



*1: Function no.

12: For the CA/AT key
13: For the CA2 key
14: For the CHK key
15: For the CH key
16: For the CH2 key

*2:

Item		Selection	Entry
A	Change (Over-tender)	Disable	1
		Enable	0
B	Validation print	Compulsory	1
		Non-compulsory	0
C to G	Always enter 0.		0
H	Amount tendered	Compulsory	1
		Non-compulsory for the CA/AT, CA2, or CHK key	0
		Inhibited for the CH and CH2 keys	0

Note

Change (over-tender)

Either change enable or disable can be selected for the CHK, CH, or CH2 key.

Validation print

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

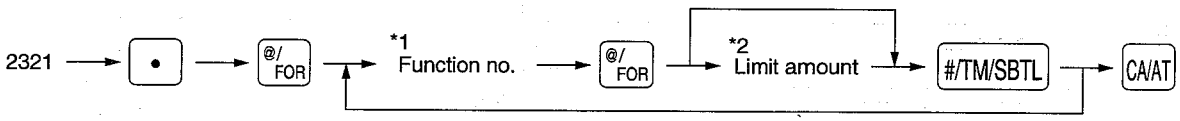
Amount tendered

You may select amount tendered compulsory or non-compulsory for the CA/AT, CA2, and CHK keys.

You may select amount tendered compulsory or inhibited for the CH and CH2 keys.

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

Procedure



*1: Function no.

17: For check cashing
18: For check change
19: For cash in drawer (Sentinel)

*2: Limit amount

0 thru 999999.99 (Check change and check cashing)
0 thru 9999999.99 (Cash in drawer)

Note *In order for a specific function to be programmed, the related key must be assigned on the keyboard.*

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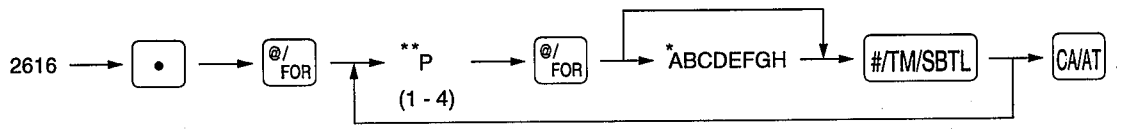
■ Optional feature selection 2616

Procedure



**P: 1

* Item		Selection	Entry
A	OP X/Z mode	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 mode

This programming determines whether a cashier is allowed to use this 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 to C	Always enter 0.		0
D	Printing of the number of purchased items	No	0
		Yes	1
E	Time print	No	1
		Yes	0
F	Journal print form	Detailed	0
		Limited	1
G to 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 "+" departments and their associated "+" PLUs).*

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**P: 3

* Item		Selection	Entry
A and C	Always enter 0.		0
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

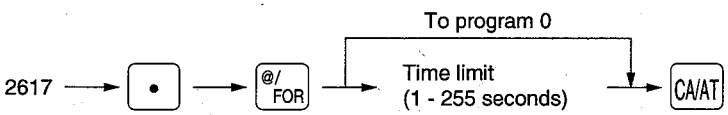
**P: 4

* Item		Selection	Entry
A	Calculation mode	Enable	0
		Disable	1
B to H	Always enter 0.		0

■ Setting the time limit for THE TILL TIMER™ 2617

The machine counts the number of times the drawer is left open for longer than the programmed time limit. The counter will be incremented by one each time the programmed time limit is reached. The time limit for THE TILL TIMER™ can be preset for 0 to 255 seconds. The count is printed on the full report and transaction report.

Procedure

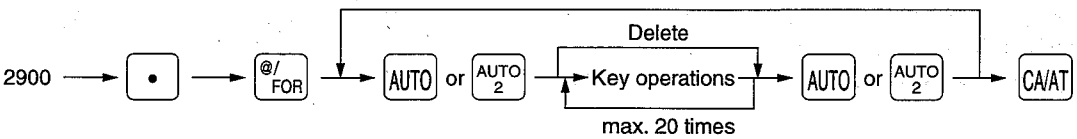


Note *A setting of 0 disables the TILL TIMER function.*

■ Setting the AUTO key — Automatic sequencing key — 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 valid key operations in the OP X/Z, REG, MGR, VOID, X1/Z1 and X2/Z2 modes can be performed. Otherwise the result will be an entry error upon entry after programming.*

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Example Programming for the [AUTO] and [AUTO 2] keys as follows:
[AUTO]; entering a $1.50 item (PLU no. 2) and a $1.00 item (department 6)
[AUTO 2]; selling a $5.00 -programmed- item (department 7) in cash

Key operation

2900 [•] [@/FOR] [AUTO]
AUTO1 → 2 setting [PLU/SUB] 100 [6] [AUTO]
[AUTO 2]
AUTO2 setting → [7] [CA/AT] [AUTO 2] [CA/AT]

Print

```
                1#
01             03
02             19
03             02
04             11
05            106
                2#
01            107
02             16
```

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	[VOID]	27	[CONV2]	42
1 key	2	[CL]	13	[RFND]	28	[CONV3]	43
2 key	3	[@/FOR]	14	[%]	29	[CONV4]	44
3 key	4	[#/TM/SBTL]	15	[%2]	30	[RA]	46
4 key	5	[CA/AT]	16	[⊖]	31	[PO]	47
5 key	6	[CA2]	17	[⊖2]	32	[DEPT#]	49
6 key	7	[MDSE/SBTL]	18	[TAX]	33	[NS]	50
7 key	8	[PLU/SUB]	19	[AUTO]	34	[ESC]	51
8 key	9	[TAX1 SHIFT]	20	[AUTO 2]	35	Dept. 1 key	101
9 key	10	[TAX2 SHIFT]	21	[CHK]	38	Dept. 2 key	102
00 key	11	[TAX3 SHIFT]	22	[CH]	39	:	:
		[TAX4 SHIFT]	23	[CH2]	40	:	:
		[PRINT]	25	[CONV]	41	Dept. 40 key	140
		[RCPT]	26				

9 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 2910 2911

For activation

Procedure

2910 → [•] → [@/FOR] → [CA/AT]

Print

```
2910#
```

For deactivation

Procedure

2911 → [•] → [@/FOR] → [CA/AT]

Print

```
2911#
```


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■ 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 "@" 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.

10 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	→ 1100 → @/FOR → Start dept. no. → @/FOR → End dept. no. → CA/AT (For reading all nos. / For individual reading)	1110, 2110, 2111, 2112, 2116
2	PLUs/ subdepartments	→ 1200 → @/FOR → Start PLU no. → @/FOR → End PLU no. → CA/AT (For reading all nos. / For individual reading)	1200, 1210, 2210
3	Function preset	→ 1300 → @/FOR → CA/AT	1310, 2311, 2312, 2320, 2321, 2322, 2616, 2617
4	Tax tables and rates	→ 2700 → @/FOR → CA/AT	2710, 2711
5	Auto keys	→ 2900 → @/FOR → CA/AT	2900

You can also read the program in the following procedure:

Departments, function preset, and tax tables and rates → CA/AT

PLUs/subdepartments → Start PLU no. → @/FOR → End PLU no. → PLU/SUB (For reading all nos. / For individual reading)

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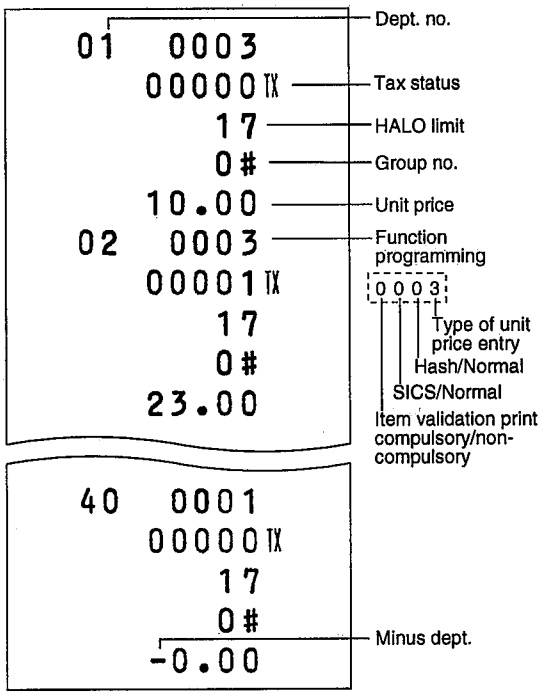
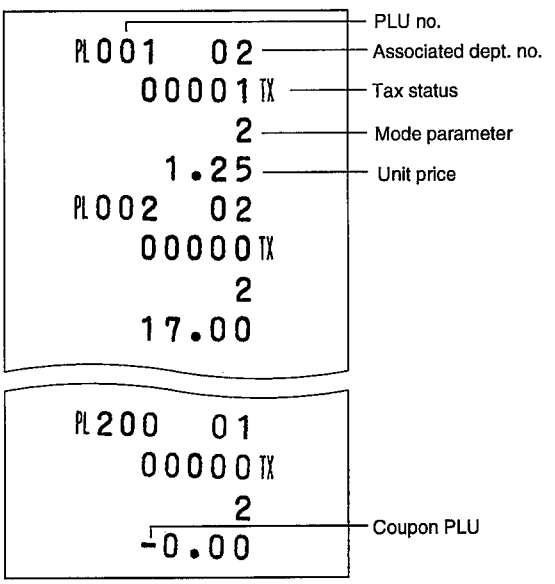
■ Sample printouts

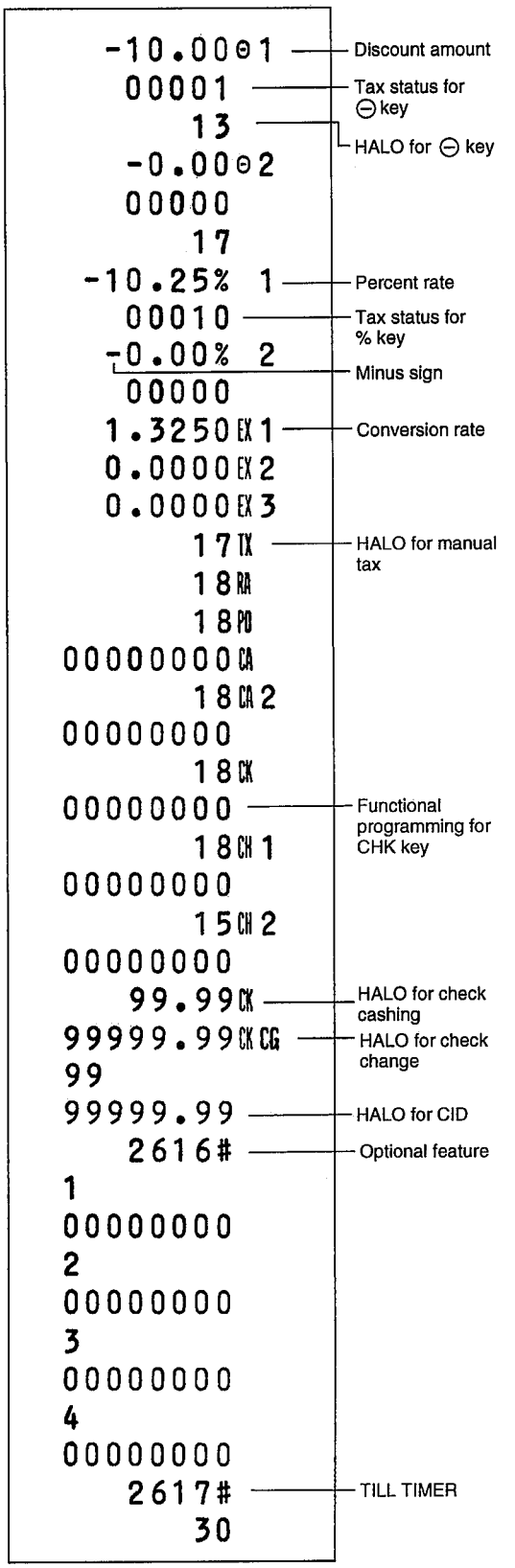
1 Departments



2 PLUs/subdepartments



3 Function preset



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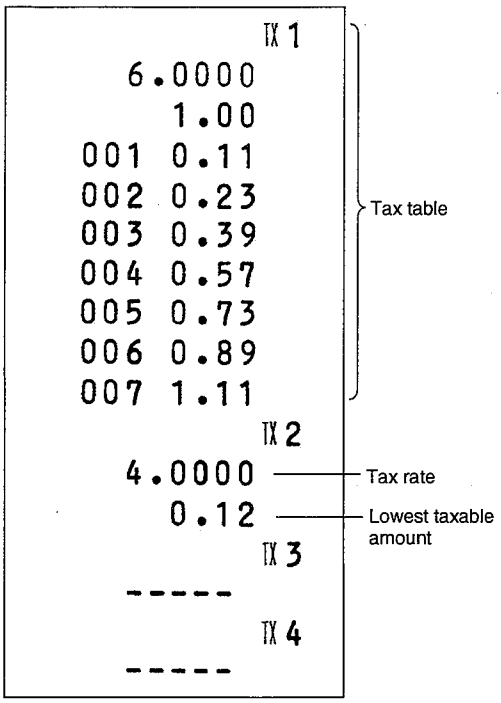
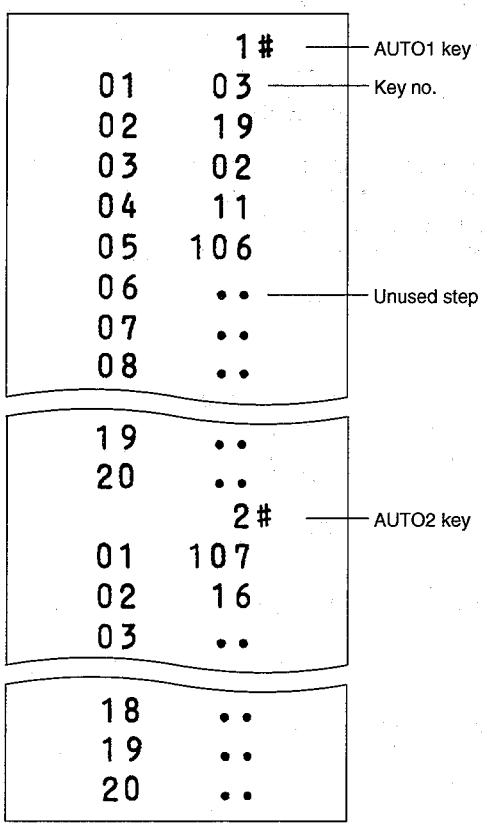
4 Tax tables and rates



5 Auto keys



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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 thru 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	Reading → • → CA/AT; Resetting → • → CA/AT
Hourly sales report	X1, Z1		Reading → • → #/TM/SBTL; Resetting → • → #/TM/SBTL
Full department report	X1	X2	MDSE SBTL
Individual group report	X1	X2	Group no. → MDSE SBTL
PLU report	X1, Z1	X2, Z2	Start PLU no. → @/FOR → End PLU no. → Reading → • → PLU/SUB; Resetting → • → PLU/SUB
PLU report by associated dept.	X1	X2	Department key or Department no. → DEPT#
Transaction report	X1	X2	CHK
Daily net total report		X2, Z2	Reading → • → #/TM/SBTL; Resetting → • → #/TM/SBTL

Flash reports:
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	CA/AT
Individual department total amount	Department key or Department no. → DEPT#
Department group total amount	Group no. → MDSE SBTL
Cash in drawer	@/FOR
Hourly sales total	Time (two digits) → #/TM/SBTL

Note *To clear the display, press the CL key.*

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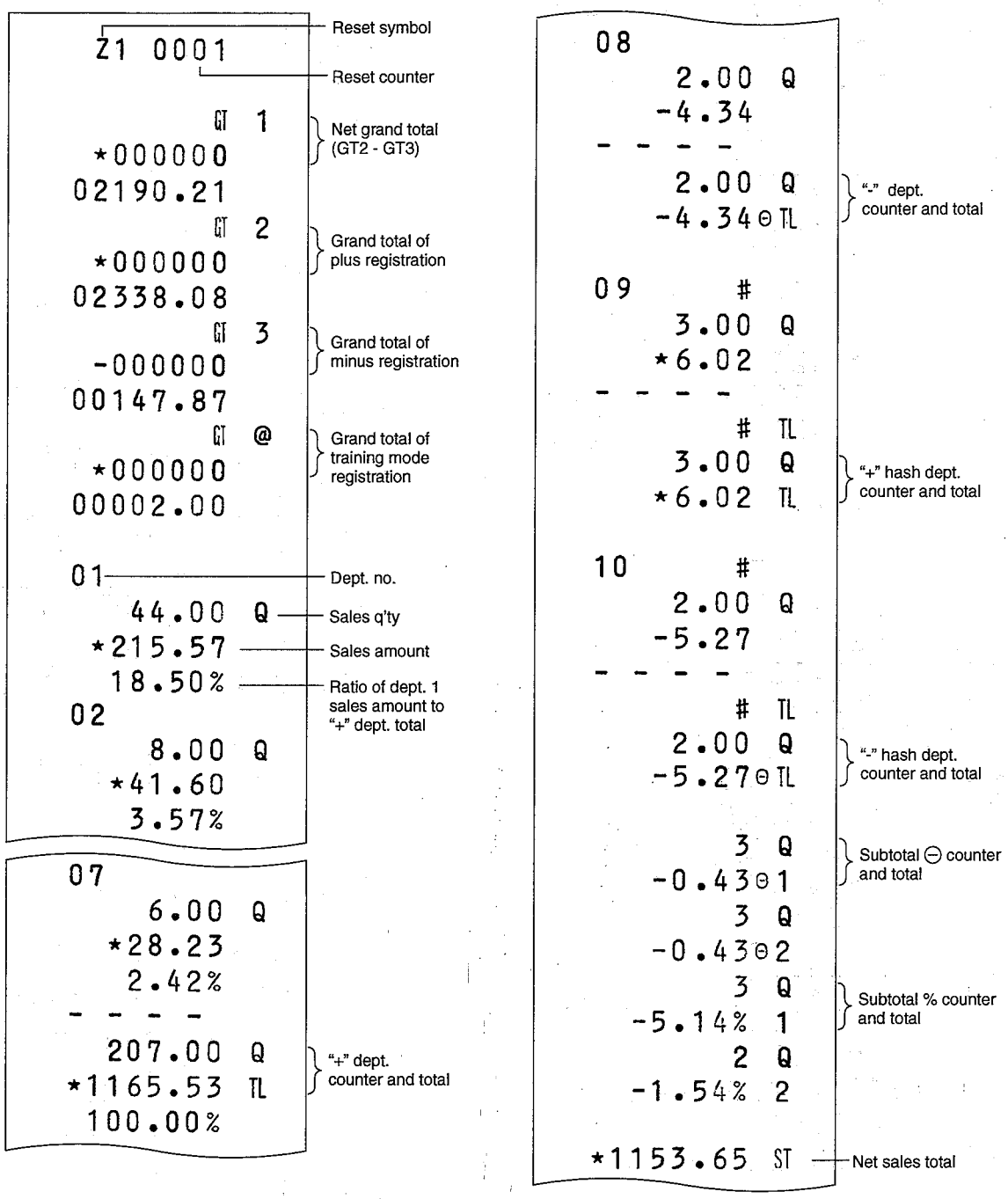
2 Daily sales totals

■ Full report



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

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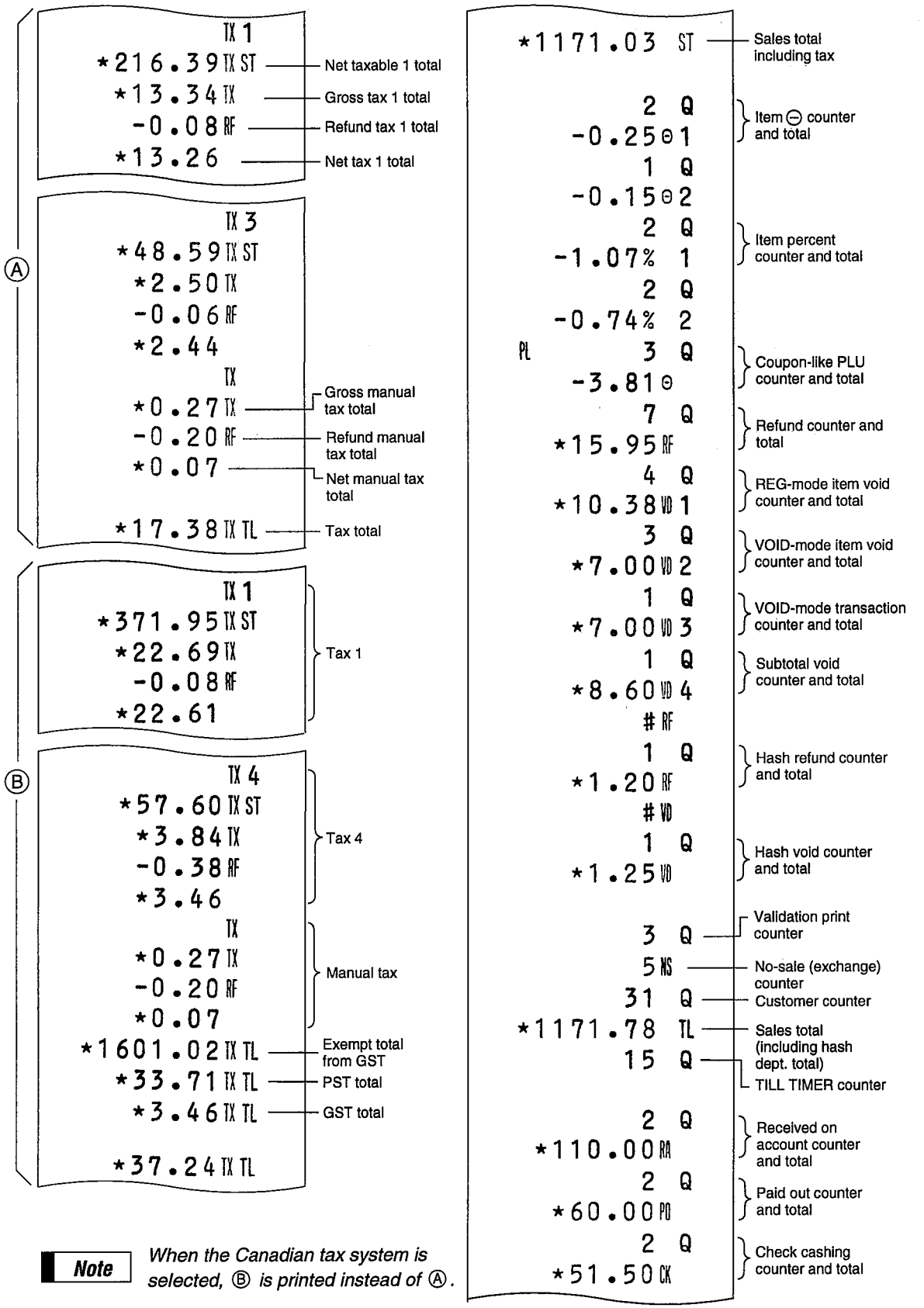

Note *When the Canadian tax system is selected, Ⓑ is printed instead of Ⓐ.*

To be continued on the next page

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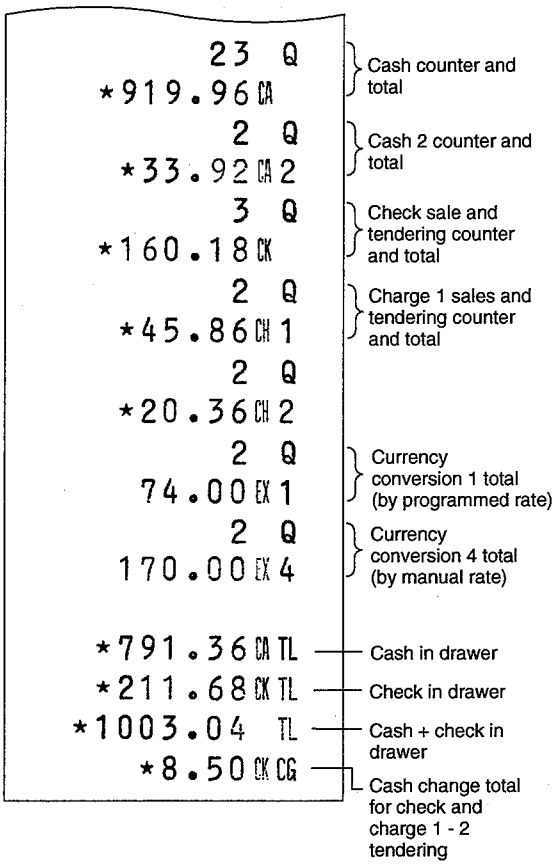
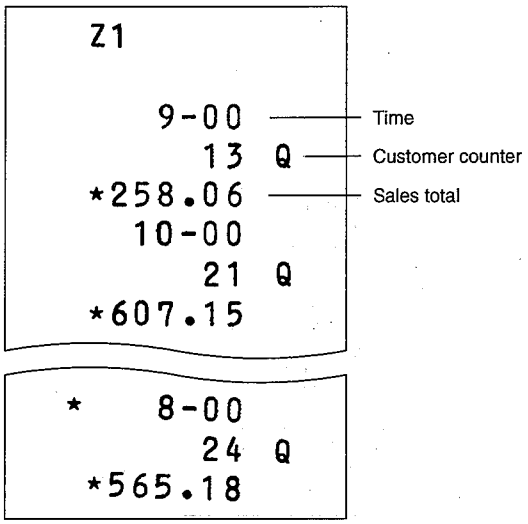
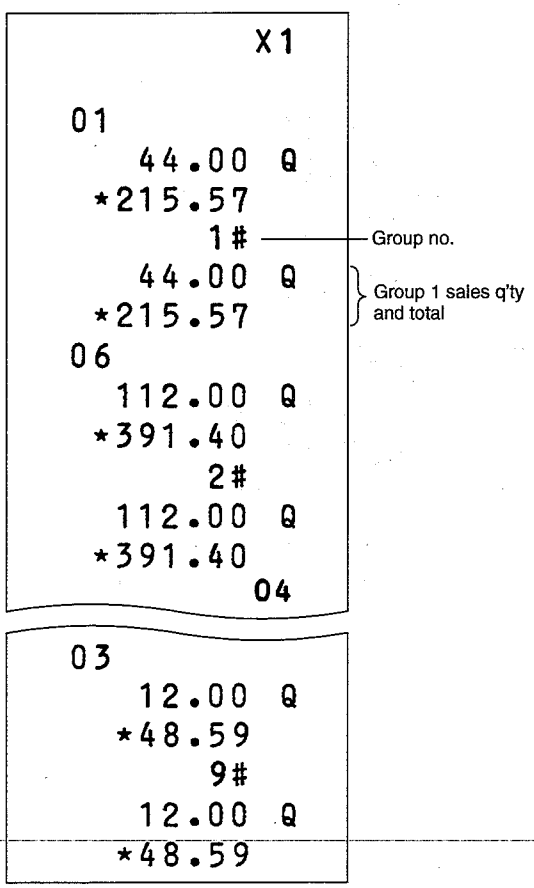


■Hourly report



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

■ Full department report



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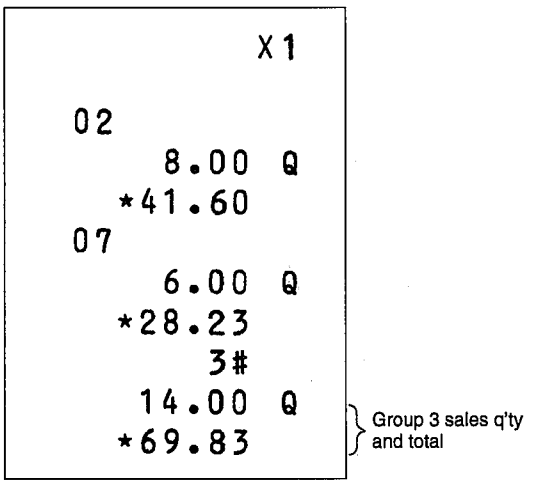
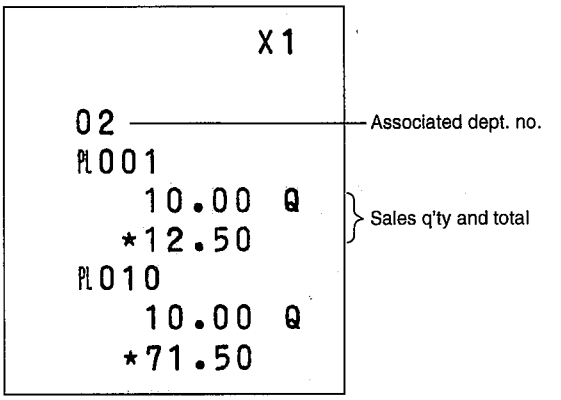
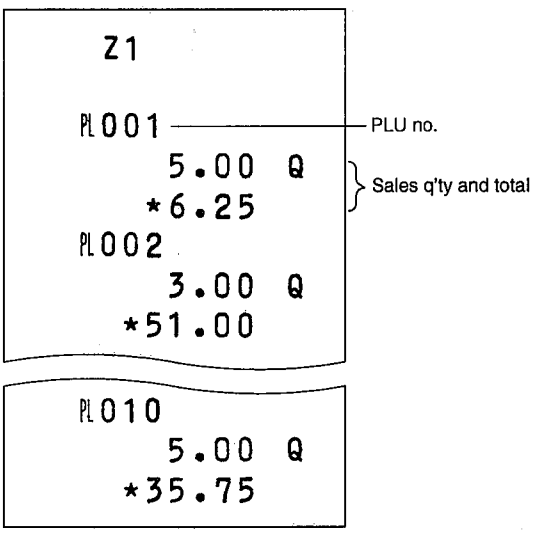
■ Individual group report



■ PLU by associated department report

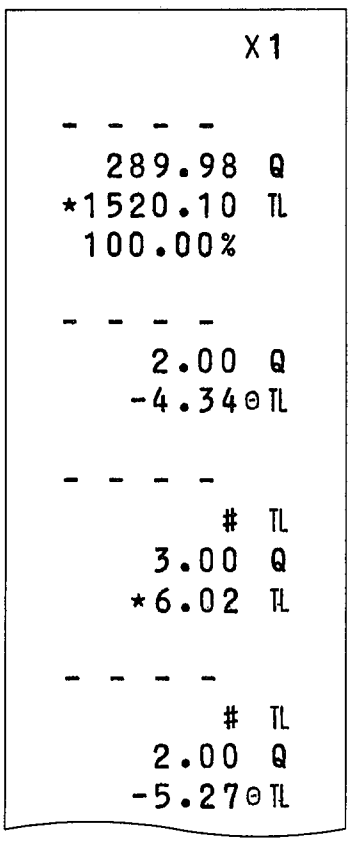


■ PLU report



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

■ Transaction report



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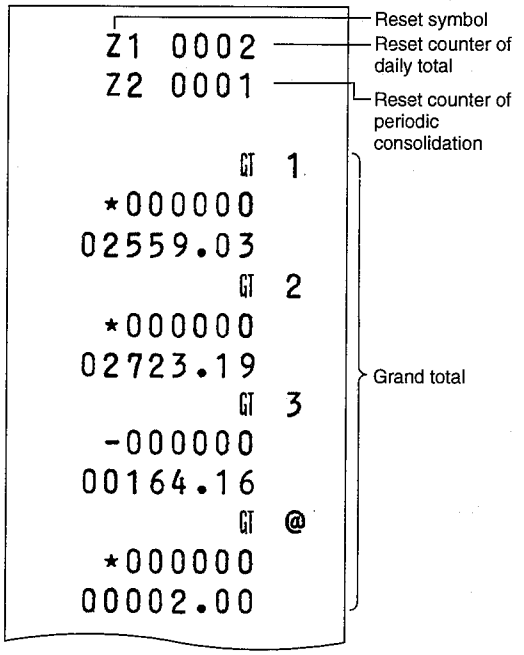
3 Periodic consolidation

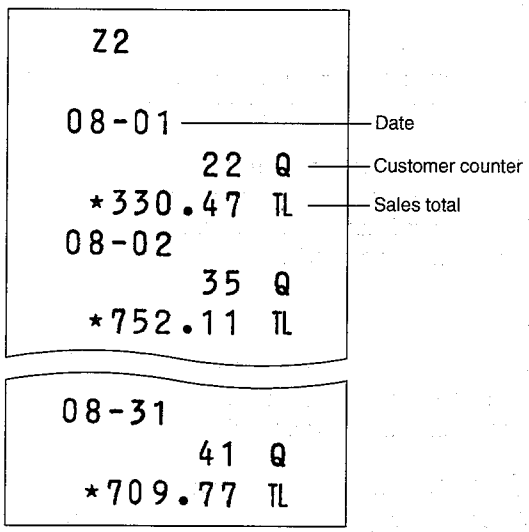
■ Full report



Note

- *The subsequent printout occurs in the same format as in the X/Z report for daily total.*
- *On the X report, the "X2" is printed instead of the "Z2."*

■ Daily net report



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

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MAINTENANCE

1 In case of power failure

When 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 returned 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.

2 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 bleeping 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.

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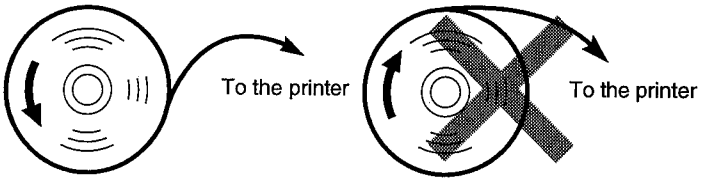
3 Installing and removing the paper roll

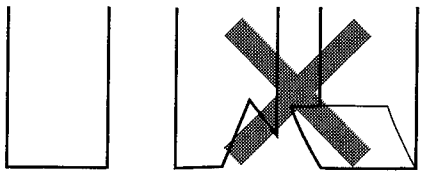
Install the paper roll in the printer. Be careful then to set the roll and cut the paper end correctly.

(How to set the paper roll)



Correct Incorrect

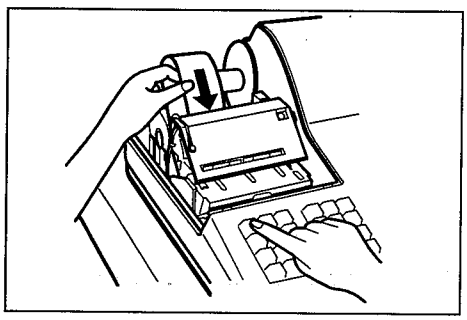
(How to cut the paper end)



Correct Incorrect

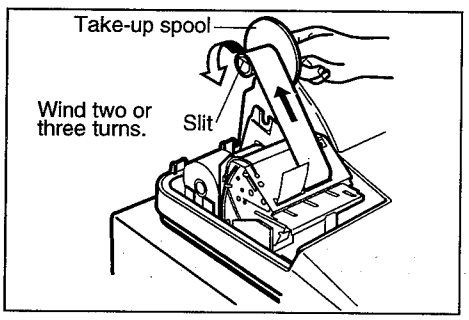
■ Installing the paper roll

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

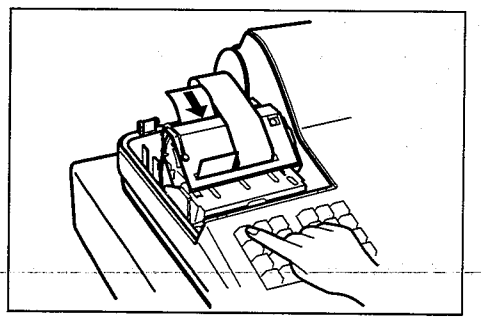


1. Turn the mode switch to the "REG" position with the AC cord connected.
2. Remove the printer cover.
3. Set the paper roll correctly and drop it into the printer.
4. Insert the paper end into the paper chute.
5. Press the journal paper feed key to advance the paper by a required length.
6. Insert the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

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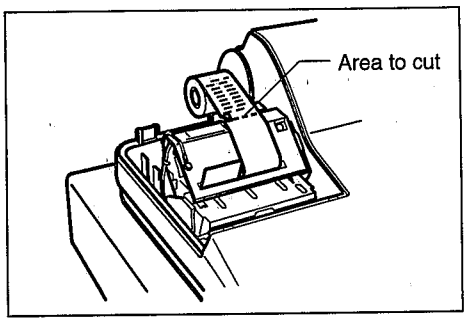
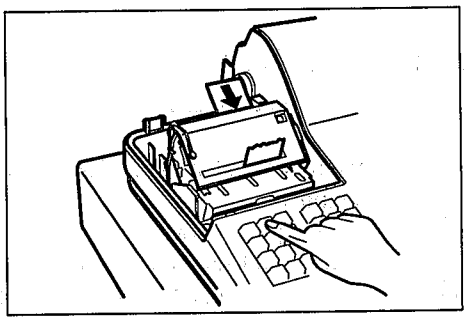
Removing the journal paper roll

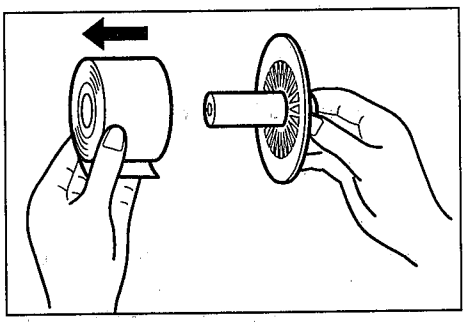
1. Remove the printer cover.
2. Press the journal paper feed key to advance the paper by several lines and then cut it.



3. Cut the paper near the unused paper roll, remove the roll and press the journal paper feed key to remove the remaining paper.



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



■ Removing a paper jam

1. Remove the printer cover.
2. Remove the paper jam.
3. Reset the paper roll correctly following the steps shown in "Installing the paper roll."
4. 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:	1.75 ± 0.02 in. (44.5 ± 0.5 mm)
Max. outside diameter:	3.27 in. (80 mm)
Thickness:	0.0024 to 0.0035 in. (0.06 to 0.09 mm)
Weight:	52.3 — 64.0 g/m²
Quality:	bond paper
Paper tube:	0.71 in. (18 mm)

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

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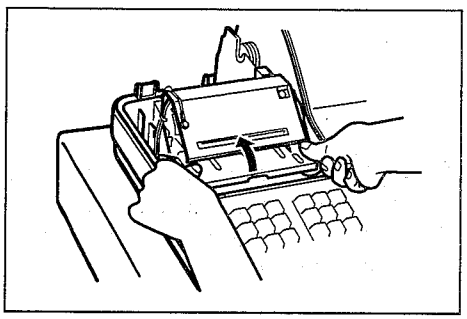
4 Replacing the ink roller

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

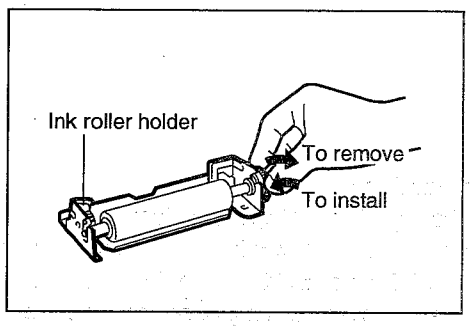
Precautions:

- **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 ribbon 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.**

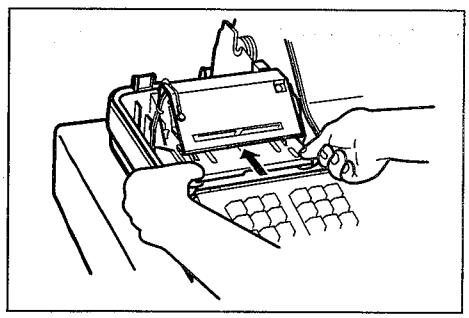
1. Remove the printer cover.
2. Lift up the ink roller holder in the direction of the arrow.



3. Remove the ink roller from the ink roller holder by pulling it in the direction of the arrow.
4. Install a new one by pressing it in the direction of the arrow.

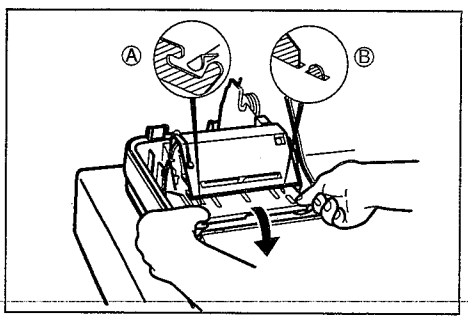


5. Insert the ink roller holder into the printer.



6. Press the ink roller holder in the direction of the arrow to fit it with the printer like the figures Ⓐ and Ⓑ.

Note *Press the ink roller holder until it snaps.*



7. Replace the printer cover.

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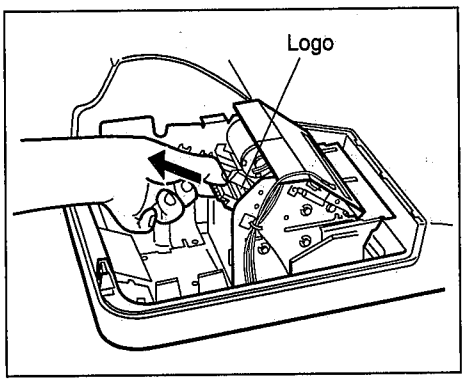
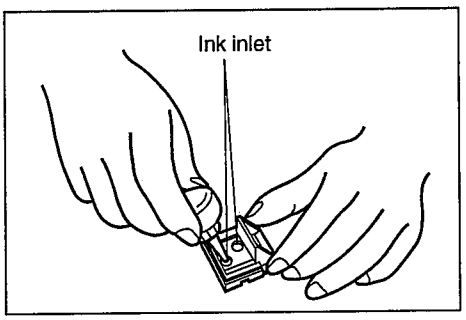
5 Ink refill

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 to 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 to the ink roller.**

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

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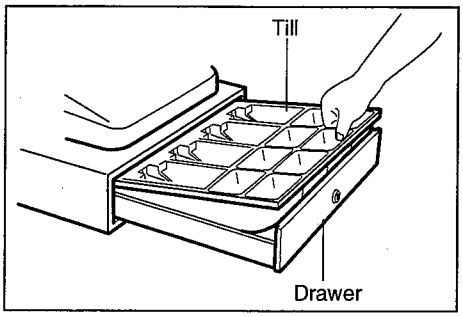
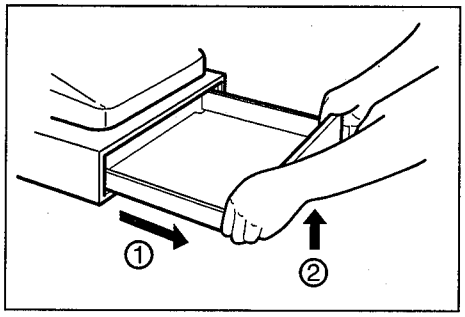
6 Removing the till and the drawer

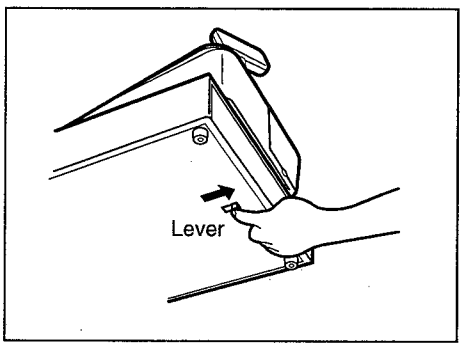
The till in the register is detachable. After closing your business for the day, remove the till from the drawer and keep the drawer open. To detach the drawer, pull it forward fully with the till removed, and remove it by lifting it up.





7 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.



8 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 "OFF."	• Is power supplied to the electric outlet? • Is the power cord plug out or loosely connected to the electrical outlet?
(2) The display is illuminated, but the whole machine refuses registrations.	• Is the cashier code assigned to the register? • Is the mode switch set properly at the "REG" position?
(3) No receipt is issued.	• Is the receipt paper roll properly installed? • Is there a paper jam? • Is the receipting function in the "OFF" status?
(4) No journal paper is taken up.	• Is the take-up spool installed on the bearing properly? • Is there a paper jam?
(5) Printing is unusual.	• Is the ink roller installed properly? • Is the ink roller's life completed?

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LIST OF OPTIONS

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

- Till model ER-48CC2
- 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-51DK7G: 10 5 x 1 size dummy key kits

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SPECIFICATIONS

Model:	ER-A320	
Dimensions (W x D x H):	16.5 x 16.7 x 12.0 in. (420 x 423 x 304 mm)	
Weight:	30.2 lbs. (13.7 kg)	
Power source:	Local voltage ± 10% AC, 50/60 Hz	
Power consumption:	Stand-by 9W Operating 35W (max.)	
Working temperature:	32 °F to 104 °F (0 °C to 40 °C)	
Electronics:	LSI (CPU), etc.	
Built-in battery:	Rechargeable battery pack, memory holding time of about 1 month (with fully charged built-in battery pack, at room temperature)	
Display:	Operator display :	7-segment display (10 positions)
	Customer display:	7-segment display (7 positions)
Printer:	Type:	2-station print wheel selective type
	Printing speed:	Approx. 2.5 lines/second
	Printing capacity:	10 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	
Ink roller:	Color:	Purple (single color)
	Life:	0.6 millions of lines
Logo:	Dimensions of the printing face (W x H): 1.18 x 0.79 in.(30 x 20 mm)	
Paper roll:	Width:	1.75 ± 0.02 in. (44.5 ± 0.5 mm)
	Max. diam.:	3.27 in. (80 mm)
	Thickness:	0.0024 to 0.0035 in. (0.06 to 0.09 mm)
	Weight:	0.12 - 0.14 lbs. (52.3 - 64.0 g/m²) (bond paper)
Cash drawer:	4 slots for bill and 8 for coin denominations	
Accessories:	Manager key	2
	Operator key	2
	Drawer lock key	2
	Bill separator	1
	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

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

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