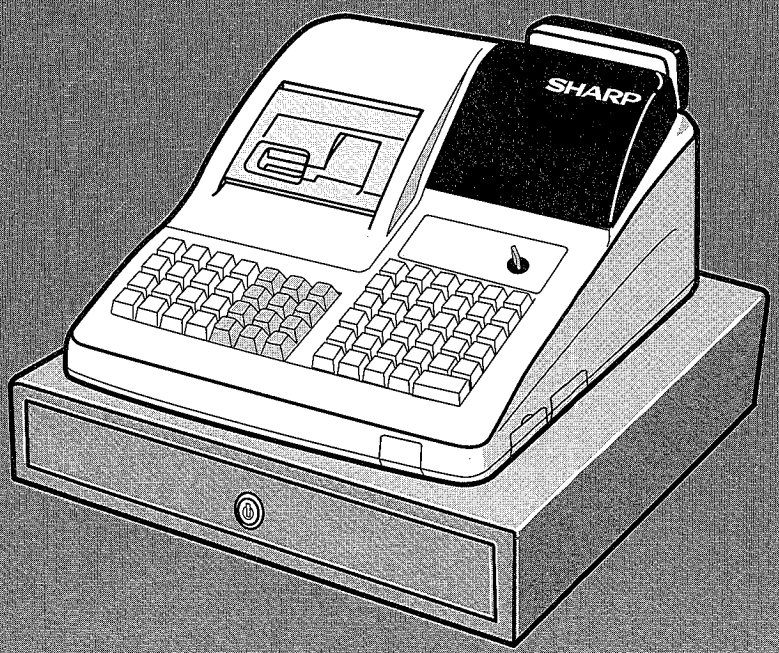
SHARP®

ELECTRONIC CASH REGISTER

MODEL

ER-A450T

INSTRUCTION MANUAL



CAUTION

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

INTRODUCTION

Thank you very much for your purchase of the SHARP Electronic Cash Register, Model ER-A450T. Please read this Manual carefully before operating your machine in order to gain a further understanding of the functions and features offered by this model ECR.
Please keep this manual for future reference, it may help you if you encounter operational problems.

IMPORTANT

- **Install your register in a location that is not subject to direct radiation, unusual temperature changes, 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/or 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) which utilizes a dedicated ground circuit.**
  Please note that 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, the AC power cord must be removed from the wall outlet.**
- **Never disconnect the peripheral while the register remains plugged into the AC outlet.**

PRECAUTION

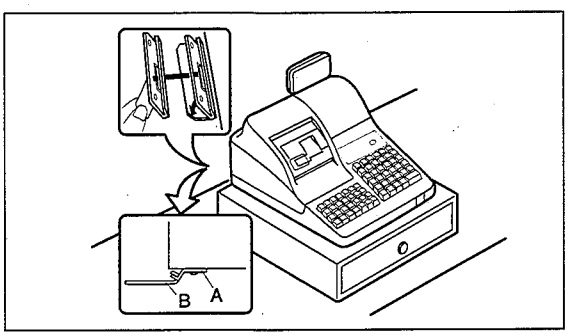
This Electronic Cash Register has a built-in memory protection circuit which is supported by rechargeable batteries.
It is important to know that all batteries will, in time, dissipate their charge even if not used. Therefore to insure an adequate charge in the protection circuit, and to prevent any possible loss of memory during or after installation, it is recommended that each unit be allowed to recharge for a period of 24 to 48 hours prior to and during use by the customer.
In order to charge the batteries, the machine must be plugged in. This recharging precaution can prevent unnecessary equipment malfunctions or service calls.

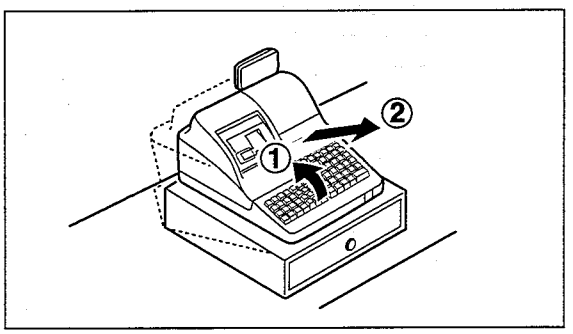
FIXING OF THE CASH REGISTER

To avoid instability of the cash register when the drawer is open, fix it to the platform by using the angle bracket on the bottom of the drawer and the supplied fixing angle bracket.

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

To move the cash register, lift up the front of the drawer (①) and pull it frontward (②).

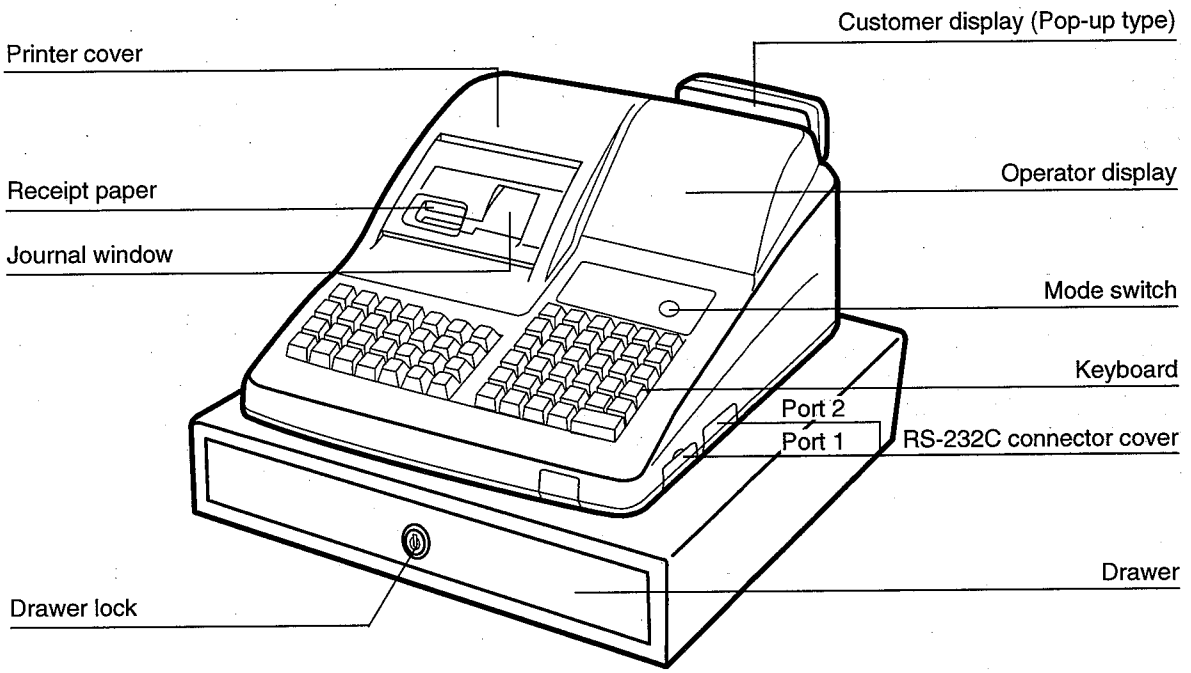




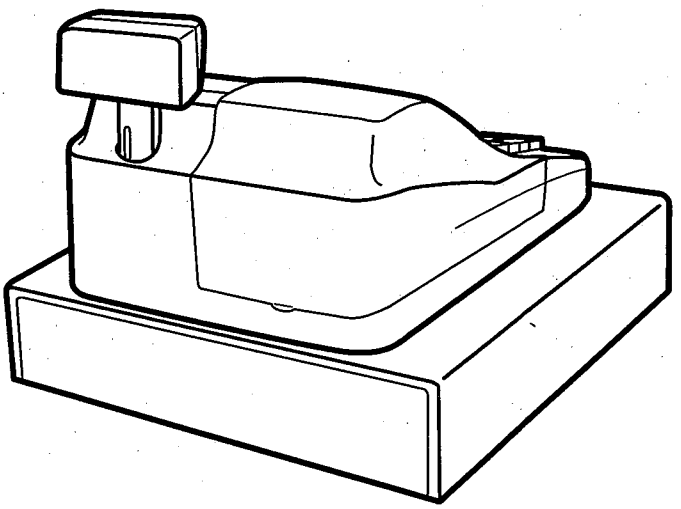
CONTENTS

EXTERNAL VIEW

■ Front view



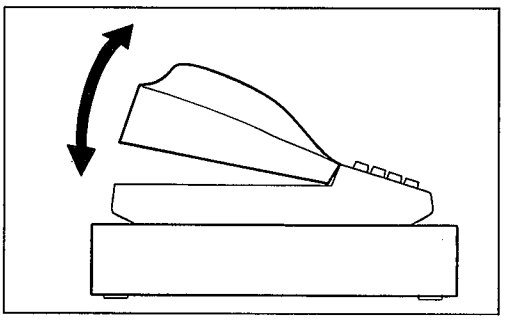
■ Rear view



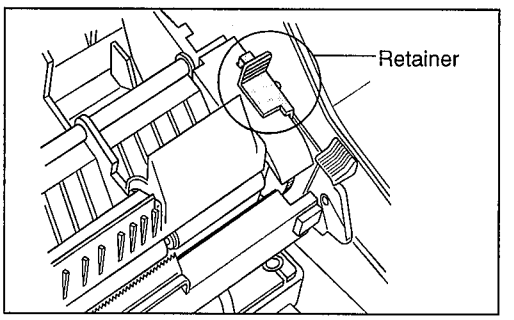
PRINTER

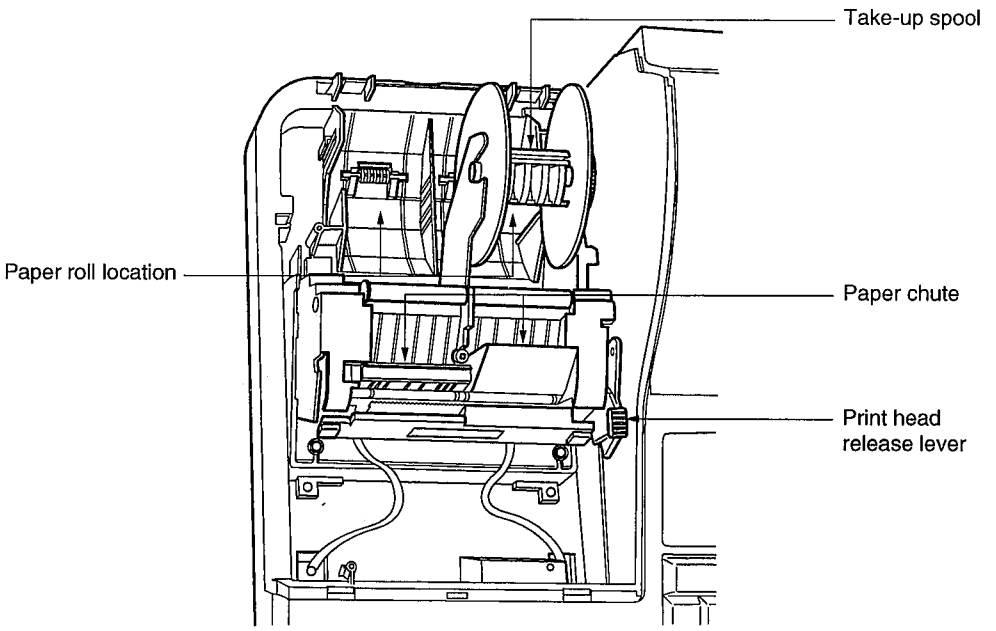
The printer is a receipt/journal dual station type thermal printer, and therefore it does not require any type of ink ribbon or cartridge.

When removing the printer cover, lift up its rear. When installing the printer cover, insert the front tabs into the pawls of the cabinet and close the cover in the direction shown.



Your register is shipped with the print head in the up position which is held in this position by a white retainer. Be sure to remove this retainer (see the figure at the right) and push down the print head release lever before you use the register.





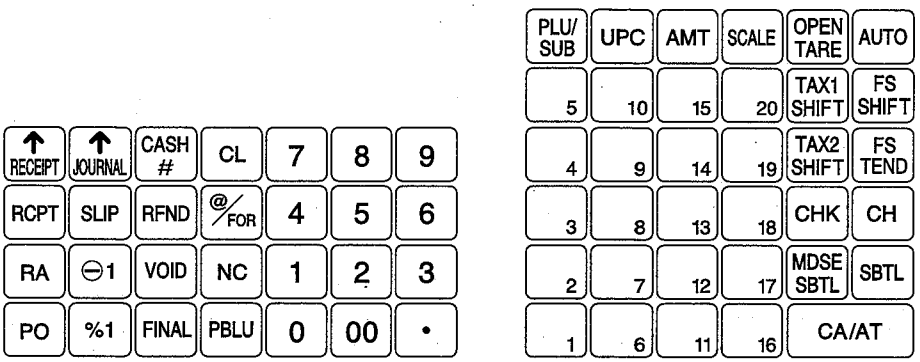
Print head release lever

The print head can be lifted by the green lever on the right side of the printer. Pulling the lever forward lifts the print head up. If the paper becomes jammed and you need to place the head in the up position, you should pull the lever even toward you and proceed with the removal of the jammed paper.

Note *Do not attempt to remove the paper roll with the head in the down position. This may result in damage to the printer and print head.*

KEYBOARD

1 Standard keyboard layout



Note *All the keys but the receipt paper feed and journal paper feed keys can be re-positioned. If you want to change the layout, contact your dealer.*

- RECEIPT — Receipt paper feed key
- JOURNAL — Journal paper feed key
- 0 ~ 9 — Numeric keys
- 00 — Double zero key
- • — Decimal point key
- @/FOR — Multiplication/split-pricing key
- CL — Clear key
- 1 ~ 20 — Department keys
- PLU/SUB — Price lookup/subdepartment key
- TAX1 SHIFT, TAX2 SHIFT — Tax 1 and tax 2 shift keys
- UPC — UPC key
- SLIP — Slip print key
- %1 — Percent 1 key
- CASH # — Cashier code entry key
- RCPT — Receipt print key
- ⊖1 — Discount 1 key
- NC — New charge account balance key
- PBLU — Previous balance lookup key
- FINAL — Final key
- AMT — Amount key
- AUTO — Automatic sequencing key
- RA — Received-on-account key
- PO — Paid-out key
- RFND — Refund key

VOID — Void key

SCALE — Scale key

OPEN TARE — Open tare key

CH — Charge key

CHK — Check key

MDSE SBTL — Merchandise subtotal key

SBTL — Subtotal key

CA/AT — Cash/amount tendered key

FS SHIFT — Food stamp shift key

FS TEND — Food stamp tendered key

* 21 ~ * 50 — Department keys

* TAX3 SHIFT, * TAX4 SHIFT — Tax 3 and Tax 4 shift keys

* %2 ~ * %4 — Percent 2 thru 4 keys

* ⊖2 ~ * ⊖4 — Discount 2 thru 4 keys

* 000 — Triple zero key

* # — Non-add code key

* NS — No-sale key

* TAX — Tax key

* DEPT # — Department no. entry key

* REPEAT — Repeat key

* INQ — UPC inquiry key

* AUTO 2 ~ * AUTO 10 — Automatic sequencing 2 thru 10 keys

* RA2 — Received-on-account 2 key

* PO2 — Paid-out 2 key

* CH2 ~ * CH5 — Charge 2 thru 5 keys

* CA2 — Cash total 2 key

* CONV1 ~ * CONV4 — Conversion 1 thru 4 keys (for currency conversion)

* CHK2 — Check 2 key

* RFND SALE — Refund sales key

* BIRTH — Birthday date entry key

* 1 ~ * 68 — Direct price lookup/subdepartment keys

* NON DELETE — Non delete key

* PRICE CHANGE — Price change key

* P1 ~ * P3 — UPC price level 1 thru 3 keys

* SRVC — Service key

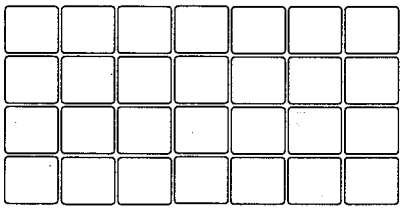
* DEPO — Deposit key

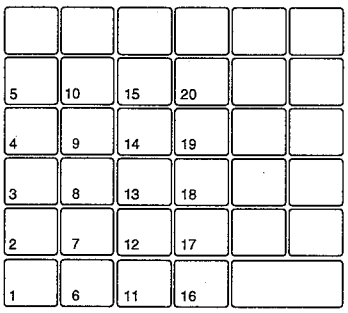
* DEPO RFND — Deposit refund key

Note *The standard keyboard is not equipped with those keys that are marked with (*).*

2 Standard key number layout

These key numbers are used for positioning of department keys and direct PLU keys. Refer to pages 89 and 98. This layout can be changed by your dealer.

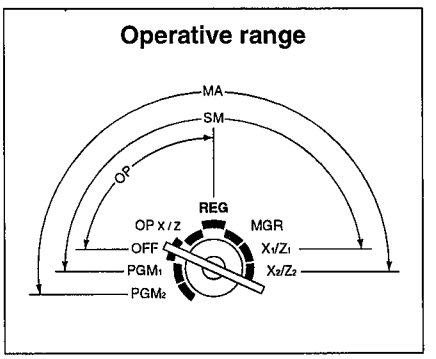


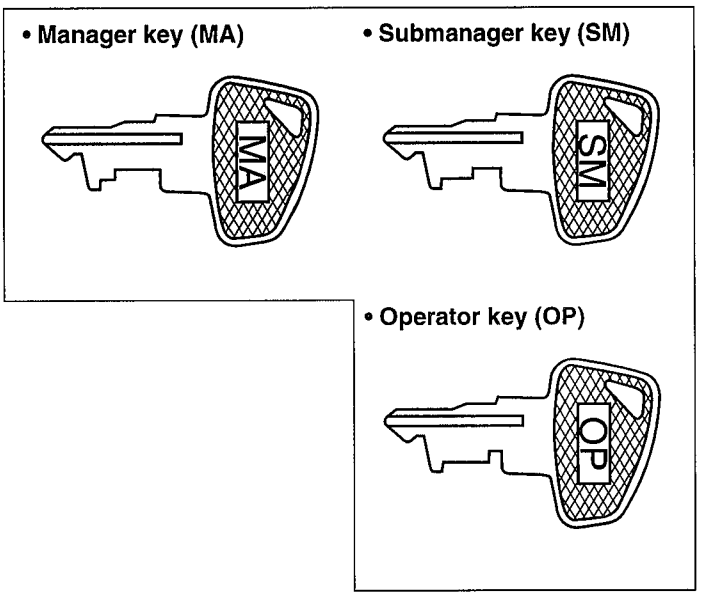


KEYS AND SWITCHES

1 Mode switch and mode keys

The mode switch can be operated by inserting one of the three supplied mode keys - manager (MA), submanager (SM), 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.

OP X/Z: This setting allows cashiers to take X or Z reports for their sales information. (This setting may be used only when your register has been programmed for "OP X/Z mode available" in the PGM2 mode.) It can also be used for displaying the time. And it can be used to toggle receipt state "ON" and "OFF" by pressing the [RCPT] key.

REG: For entering sales

PGM1: To program those items that need to be changed often: e.g., unit prices of departments, PLUs or UPCs, and percentages.

PGM2: To program all PGM1 programs and those items that do not require frequent changes: e.g., date, time, or a variety of register functions

MGR: For manager's and submanager's entries
The manager can use this mode to make entries that are not permitted to be made by cashiers - for example, after-transaction voiding and override entry.

X1/Z1: To take the X/Z report for various daily totals

X2/Z2: To take the X/Z report for various periodic (weekly or monthly) accumulation.

2 Cashier code entry key

Cashier codes are available in two types: **Hidden type**, which is not displayed (always "-00-"), and **Displayed type**, which is displayed ("-01-"~"-99-"). When the cashier code is assigned by one the following procedures, the register prints the two-digit cashier code (the hidden type will print: " ✱ ✱ ") and the cashier name both on the receipt and journal for every transaction.
To select which Cashier codes are available prior to use, please consult your local Sharp dealer.

Procedure

■ Sign-on

To display the current cashier code

Displayed type : → Cashier code → CASH #

Hidden type : CASH # → Cashier code → CASH #

■ Sign-off

Displayed type / Hidden type :

CASH # → CASH #

Note *The cashier code will be entered in the REG, MGR, OP X/Z, X1/Z1, or X2/Z2 mode. Please note that the cashier code must be signed on when selecting the "the individual cashier reading and resetting" reports.*

3 Receipt (ON-OFF) function

This function permits (when the function is in the ON status) or prohibits (when the function is in the OFF status) automatic receipt printing. When the receipt function is in the OFF status, the "RCPT OFF" indicator "_" will light up.
Use the following procedure.

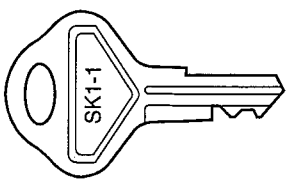
Procedure

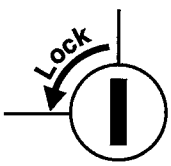
1. Turn the mode switch to the OP X/Z position.
2. Press the RCPT key to change the receipt printing status (ON or OFF).

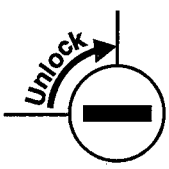
Note *Your register will print reports regardless of the receipt state. This means that the receipt roll must be installed even when the receipt state is "OFF".*

4 Drawer lock key

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

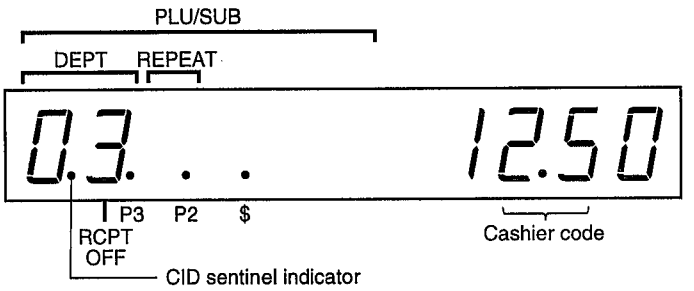




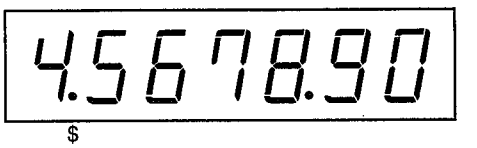


DISPLAYS

Operator display



Customer display (Pop-up type)



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

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

Number of repeats for repetitive registrations:
The number of repeats is displayed, starting at "2" and incremented with each repeat. When you have registered ten times, the display will show "0."
Example: (2 → 3 → 4 ····· 9 → 0 → 1 → 2 ···)

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

Time: Appears in the far-right six positions (hour-minute-"A" or hour-minute-"P") in the OP X/Z, REG, or MGR mode. "A" is displayed in the morning (AM), and "P" in the afternoon (PM). In the REG, or MGR mode, press the [#] key to display the time.

■ Machine state symbols

P : Appears in the tenth place during programming or when the slip printing is compulsory.

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

– (Floating): Appears when a minus department or PLU/subdepartment or UPC 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 [CONV1] thru [CONV4] key is pressed to calculate a subtotal in foreign currency.

F : Appears in the tenth place when a transaction is finalized by pressing the [CA/AT], [CA2], [CHK], [CHK2], or [CH] thru [CH5] key.

C : Appears in the tenth place when the change due amount is displayed.

V : Appears when the validation printing is compulsory.

v : Appears in the tenth place when the [VOID] key is pressed in the MGR mode, indicating the entry into the VOID mode. While your register is in the VOID mode, this symbol continues to be in the display except when department numbers, PLU numbers or tax-included subtotals are displayed. Also appears when a subtotal void is made.

• : (Sentinel lamp) Appears right below the tenth place when the cash in drawer amount exceeds a programmed sentinel amount. The sentinel check is performed for the total cash in drawer.

(P3) Appears right below the ninth place when the price level is shifted to the level 3.

(P2) Appears right below the eighth place when the price level is shifted to the level 2.

($) Appears right below the seventh place when the item amount is displayed at scale entry.

r : Appears in all places when the [RFND SALE] key is pressed to activate the REFUND SALES mode.

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 section "5. Installing and removing the paper rolls" described in the "OPERATOR MAINTENANCE" section.

Receipt function

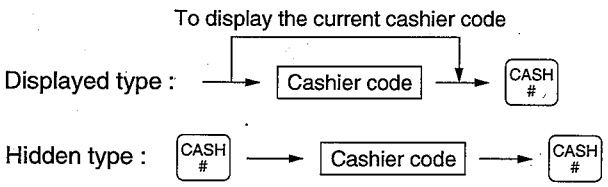
You can disable receipt printing in the REG mode to save paper using the receipt function. To disable receipt printing, press the [RCPT] key in the OP X/Z position. This key toggles the receipt printing status ON and OFF.
To check the receipt printing status, turn the mode switch to the OP X/Z position or press the [CL] key in the REG mode. When the function is in the OFF status, the receipt off indicator "_" illuminates. Even if the function is in the OFF status, the register prints reports, so always install a receipt roll regardless of the status.

■ Cashier assignment

Cashier codes are available in two types: **Hidden type**, which is not displayed (always "-00-"), and **Displayed type**, which is displayed ("-01-"~"-99-"). When the cashier code is assigned by one the following procedures, the register prints the two-digit cashier code (the hidden type will print: " ✱ ✱ ") and the cashier name both on the receipt and journal for every transaction.
To select which Cashier codes are available prior to use, please consult your local Sharp dealer.

Procedure

■ Sign-on



■ Sign-off

Displayed type / Hidden type :

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 recommended action. Please refer to the error code table on page 172.

- When you enter an over 32-digit number (entry limit overflow): Cancel the entry and re-enter a acceptible 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: Clear the error displayed by pressing the [CL] key and press the [CA/AT], [CA2], [CHK], [CHK2], or [CH] thru [CH5] key to finalize the transaction.

ENTRIES

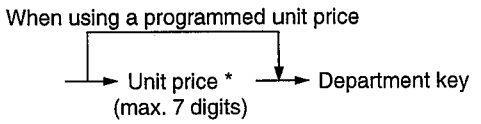
1 Item entries

■ Single item entries

Procedure

Department entries (direct department entries)

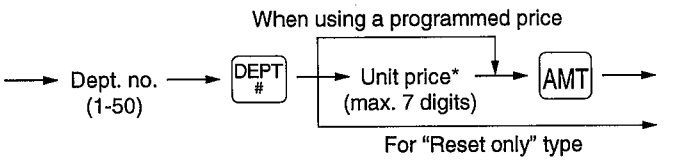
Enter a unit price and press a department key. If you use a programmed unit price, press the department key only.



*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.*

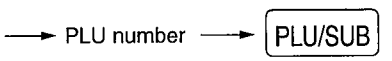
Department entries (indirect department entries)



*Less than the programmed upper limit amounts

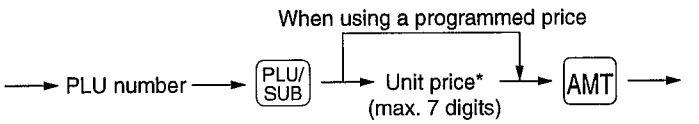
PLU entries (indirect PLU entries)

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



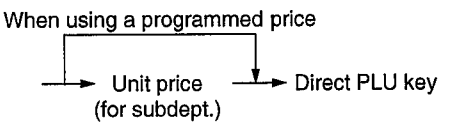
Note *When those PLUs for which the unit price has been programmed as zero (0) are entered, only the sales quantity is added.*

Subdepartment (open PLU) entries

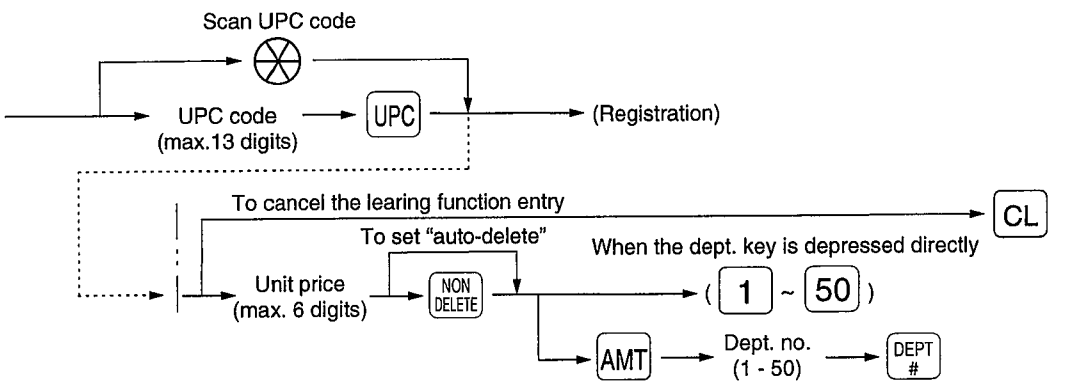


*Less than the programmed upper limit amounts

PLU entries (direct PLU entries)



UPC entries



Example

Key operation

1200 [3]
[5]
8 [DEPT #]
5 [DEPT #] 680 [AMT]
2 [PLU/SUB]
11 [PLU/SUB] 1200 [AMT]
[8]
5012345678900 [UPC]
[CA/AT]

Print

DPT.03	$12.00
DPT.05	$5.00
DPT.08	$2.00
DPT.05	$6.80
PLU00002	$1.50
PLU00011	$12.00
PLU00008	$3.50
5012345678900#	
APPLE	$2.50
CASH	$45.30

■ Repeat entries

You can use this function for entering a sale of two or more same items.
You can use the [REPEAT] key to repeat entry instead of department, [AMT], direct PLU, [PLU/SUB] or [UPC] key.

Example

Key operation

Repeated department entry (direct)
200 [8]
[8]
[8]

Repeated department entry (indirect)
5 [DEPT #] 680 [AMT]
[AMT]

Repeated PLU entry (indirect)
10 [PLU/SUB]
[PLU/SUB]
[PLU/SUB]

Repeated PLU entry (direct)
[51]
[51]

Repeated subdepartment entry
60 [PLU/SUB]
500 [AMT]
[AMT]

Repeated UPC entry
5012345678900 [UPC]
[UPC]

Repeated department entry (direct) using the repeat key
600 [2]
[REPEAT]
[REPEAT]
[CA/AT]

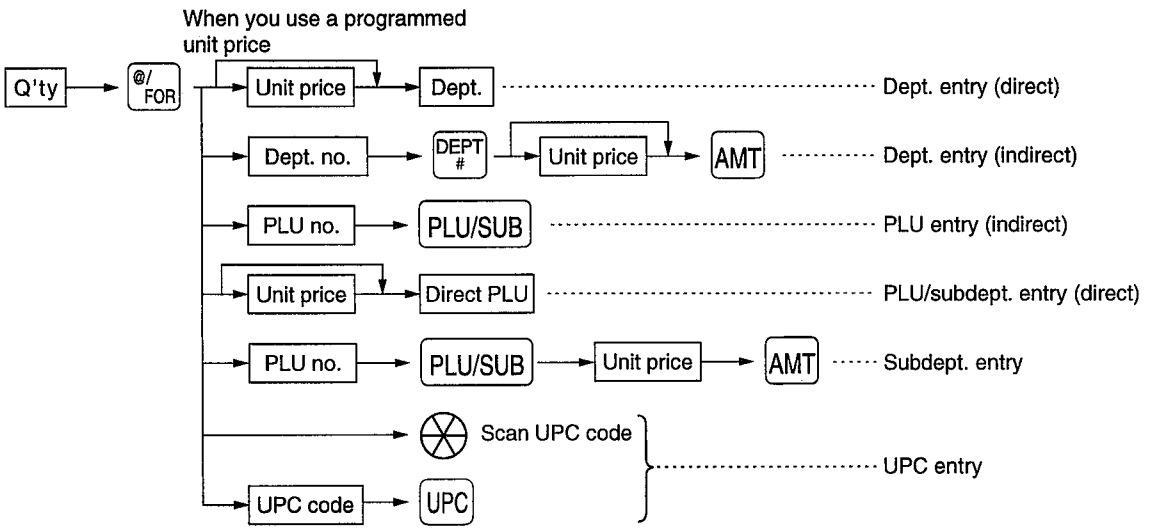
Print

DPT.08	$2.00
DPT.08	$2.00
DPT.08	$2.00
DPT.05	$6.80
DPT.05	$6.80
PLU00010	$7.15
PLU00010	$7.15
PLU00010	$7.15
PLU00051	$2.85
PLU00051	$2.85
PLU00060	$5.00
PLU00060	$5.00
5012345678900#	
APPLE	$2.50
5012345678900#	
APPLE	$2.50
DPT.02	$6.00
DPT.02	$6.00
DPT.02	$6.00
CASH	$79.75

■ Multiplication entries

Use this feature entry method 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



- After scanning a UPC code or pressing the [UPC] key, you may be required to enter a unit price with the display "------". Enter the unit price using the [AMT] key and department no. with the [DEPT #] key.
- Q'ty: Up to four digits integer + three digits decimal
- Unit price: Less than the programmed upper limit
- Q'ty x unit price: Up to seven digits

Example

	Key operation
Department entry (direct)	7 [•] 5 [@/FOR]
	165 [8]
Department entry (indirect)	2 [@/FOR]
	5 [DEPT #]
	250 [AMT]
PLU entry	15 [@/FOR]
	13 [PLU/SUB]
Direct PLU entry	8 [•] 25 [@/FOR]
	[58]
Subdepartment entry	3 [@/FOR]
	60 [PLU/SUB]
	100 [AMT]
UPC entry	5 [@/FOR]
	5012345678900 [UPC]
	[CA/AT]

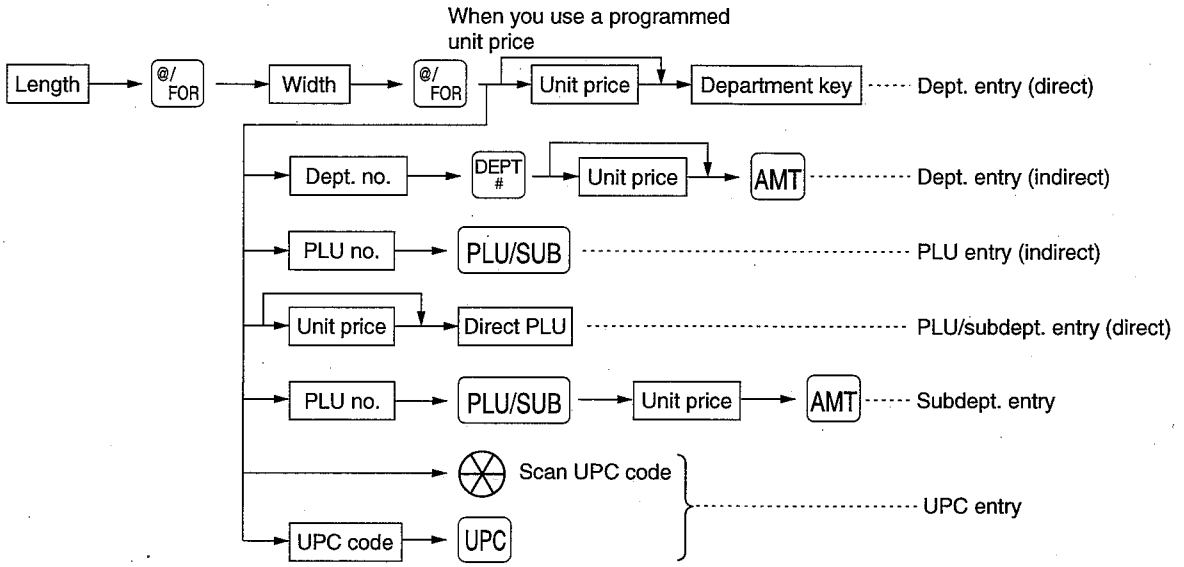
Print

```
                7.5 @ $1.65
DPT.08                $12.38
                2 @ $2.50
DPT.05                 $5.00
               15 @ $2.10
PL000013              $31.50
             8.25 @ $3.00
PL000058              $24.75
               3 @ $1.00
PL000060               $3.00
               5 @ $2.50
5012345678900#
APPLE                 $12.50

CASH                 $89.13
```

■ Successive multiplication entries

This function is practical for such entries as a sale of an item sold by area (square foot).

Procedure



- After scanning a UPC code or pressing the [UPC] key, you may be required to enter a unit price with the display "------". Enter the unit price using the [AMT] key and department no. with the [DEPT #] key.
- Length or width: up to seven digits (4-digit integer + 3-digit decimal)
- Unit price: less than the programmed upper limit
- Length x Width x Unit price: up to seven digits

Note *For actual use of this function, consult your dealer.*

Example

Key operation

Department entry	3 [@/FOR]
	4 [@/FOR]
	400 [5]
PLU entry	1 [•] 5 [@/FOR]
	2 [•] 5 [@/FOR]
	8 [PLU/SUB]
Subdepartment entry	1 [•] 75 [@/FOR]
	1 [•] 75 [@/FOR]
	6 [PLU/SUB]
	600 [AMT]
UPC entry	4 [@/FOR]
	5 [@/FOR]
	5099887654302 [UPC]
	[CA/AT]

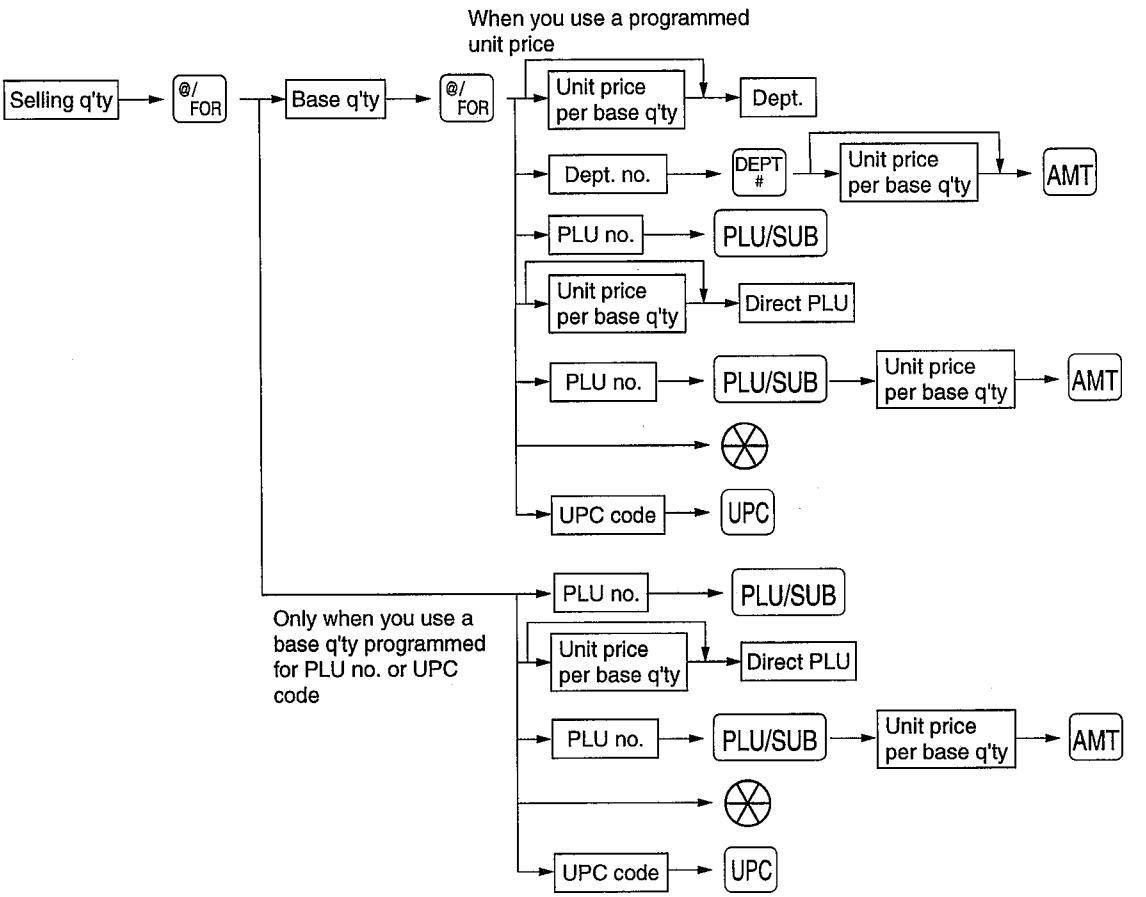
Print

```
          3 @ 4 @ $4.00
DPT.05                $48.00
     1.5 @ 2.5 @ $3.00
PL000008              $11.25
    1.75 @ 1.75 @ $6.00
PL000006              $18.38
          4 @ 5 @ $5.00
5099887654302#
                     $100.00

CASH                 $177.63
```

■ Split-pricing entries

You will use this function when your customer wants to purchase items normally sold in bulk.

Procedure



- After scanning a UPC code or pressing the [UPC] key, you may be required to enter a unit price with the display "------". Enter the unit price using the [AMT] key and department no. with the [DEPT #] key.
- Selling quantity: Up to four digits integer + three digits decimal
- Base quantity: Up to two digits (integer)

Note *For actual use of this function, consult your dealer.*

Example

	Key operation	Print
Department entry	7 [@/ FOR]	7 @ 10/ $6.00
	10 [@/ FOR]	DPT.07 $4.20
	600 [7]	8 @ 5/ $3.00
PLU entry	8 [@/ FOR]	PL000035 $4.80
	5 [@/ FOR]	5 @ 6/ $8.75
	35 [PLU/SUB]	5045678912304#
UPC entry	5 [@/ FOR]	$7.30
	6 [@/ FOR]	CASH $16.30
	5045678912304 [UPC]	
	[CA/AT]	

■ Single item cash sale (SICS) entries

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 set for SICS or to their associated PLUs, subdepartments or UPCs.
- The transaction is finalized and the drawer opens as soon as you press the department key, [AMT] key, [PLU/SUB] key, the direct PLU key or [UPC] key.

Example Selling a $2.50 item (dept. 9, set for SICS) for cash

Key operation	Print
250 For finishing the transaction → [9]	DPT. 09 $2.50 CASH $2. 50

Note *If entries to a department, PLU/subdepartment or UPC set for SICS follows entries to departments, PLUs/subdepartments or UPC not set for SICS, it does not finalize and results in a normal sale.*

SIF entries

- If entries to a department, PLU/subdepartment or UPC set for SIF follows entries to departments, PLUs/subdepartments or UPC not set for SIF, the transaction is finalized immediately as a cash sale.
- Like the SICS function, this function is available for single-item cash settlement.

Example Selling a $17.45 item (dept. 8, normal) and another $15.00 item (dept. 9, set for SIF) for cash

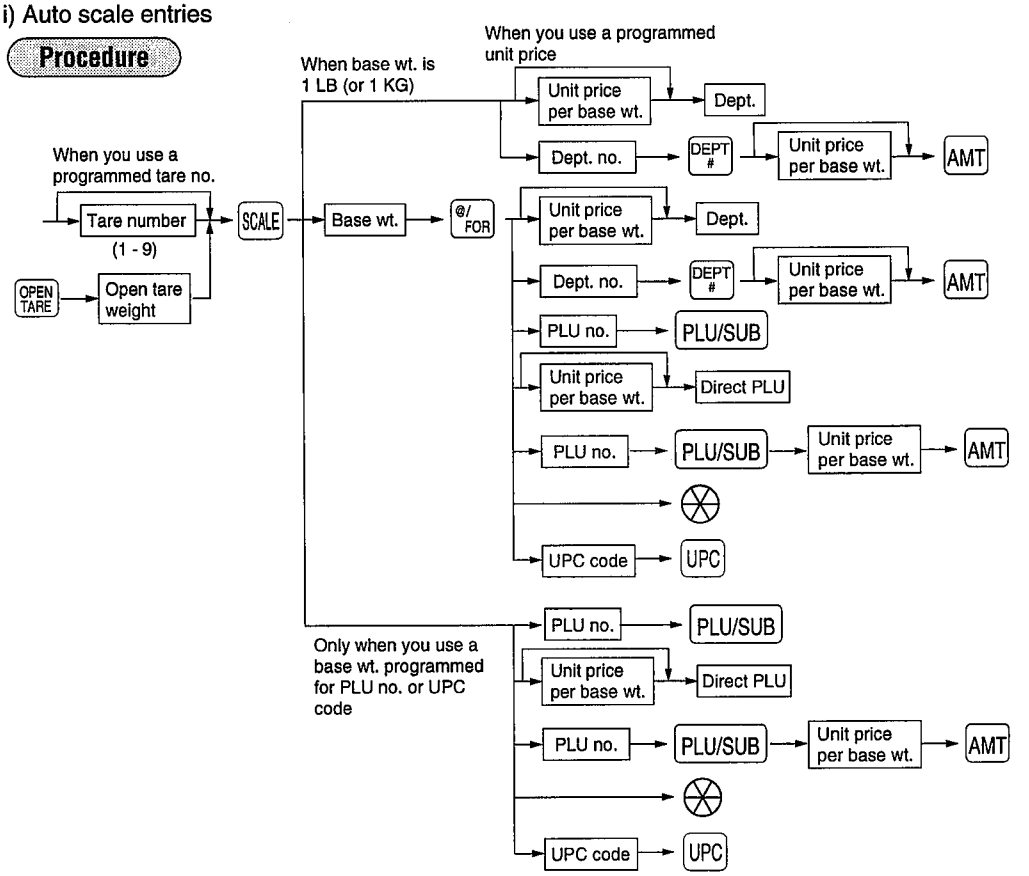
Key operation	Print
1745 [8] 1500 For finalizing the transaction → [9]	DPT. 08 $17.45 DPT. 09 $15.00 CASH $32. 45

■ Scale entries

For making entries for weighed items, a scale must be connected where by the weight is automatically read from the scale. To make refund entries, the weight is entered manually while the scale platter is empty and reads zero.

i) Auto scale entries

Procedure



- Open tare weight: Up to 5 digits (integer + decimal)
- Net weight: Up to 5 digits (integer + decimal)
- Base weight: Up to 2 digits (integer)

Note

- *The register can be programmed with up to nine tare tables and allows different tares to be assigned to them.*
- *When the [SCALE] key is pressed, the weight is automatically read from the connected scale (option) and the net weight appears in the register display.*
- *When the item is programmed for "Scale compulsory", it is not necessary to press the [SCALE] key.*

Example Selling these items for cash

Dept./PLU no.	Unit price	Weight (LB)
Dep. 1	$2.00	32.45
PLU no. 1	($7.15)	32.45 (base wt.: 15)

Key operation

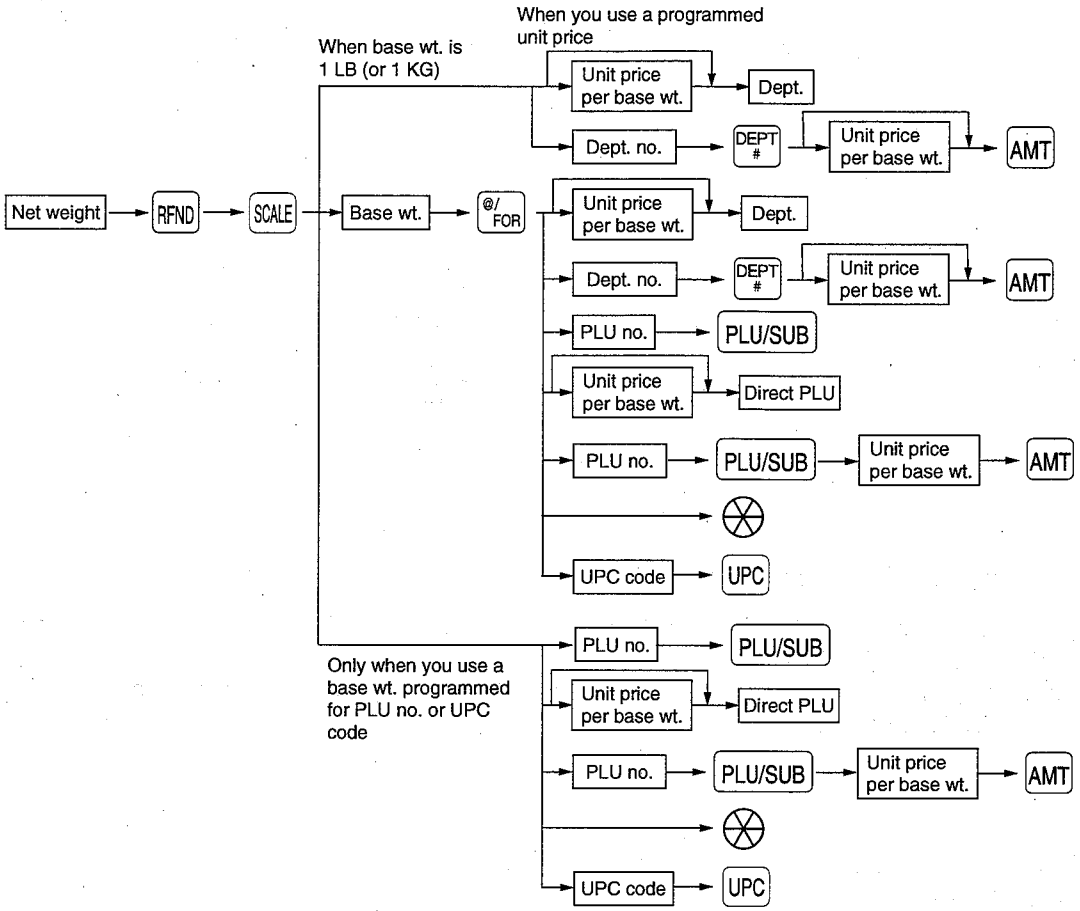
[SCALE] 200 [1]
[SCALE] 1 [PLU/SUB]
[CA/AT]

Print

```
32.45 lb
      @ $2.00/lb
DPT.01          $64.90
32.45 lb
    @ 15/ $7.15/lb
PL000001        $15.47

CASH          $80.37
```

ii) Manual scale entries for refunds only

Procedure



- Net weight: Up to 5 digits (integer + decimal) which is from the customer's receipt.
- Base weight: Up to 2 digits (integer)

Example Selling these items for cash

Dept./PLU no.	Unit price	Weight (LB)
Dep. 1	$2.00	32.45
PLU no. 1	($7.15)	32.45 (base wt.: 15)

Key operation

32 [•] 45 [RFND] [SCALE] 200 [1]
32 [•] 45 [RFND] [SCALE] 1 [PLU/SUB]
[CA/AT]

Print

```
MAN WT
  32.45 lb
        @ $2.00/lb
DPT.01          R-64.90
"RETURNED FOR CREDIT"
MAN WT
  32.45 lb
     @ 15/ $7.15/lb
PL000001        R-15.47
"RETURNED FOR CREDIT"

CHANGE        $80.37
```

■ Linking PLU/UPC entries

Operation is the same as normal PLU's/UPC's. When this PLU/UPC is entered, the linked PLU's amount is included and the linked PLU's label is printed automatically. Only a 1st PLU is affected by the status shift keys ([TAX1 SHIFT], [TAX2 SHIFT], [TAX3 SHIFT], [TAX4 SHIFT] or [FS SHIFT] key). The percent calculation is in effect for the amount of the 1st ranking PLU.

Example When PLU no. 21 is linking PLU nos. 25,26,27 as follows

Key operation	Print
21 [PLU/SUB] [CA/AT]	PL000021 $3.50 PL000025 $3.00 PL000026 $2.00 PL000027 $8.00 CASH $16.50

■ Age verification (Birthday entry)

The age verification function is used for prohibiting to sell goods (departments, PLUs, or UPCs) for certain aged persons based on a registered birthday.
When a department/PLU/UPC for which a figure other than zero (01 to 99) has been programmed as the age limitation is entered, a birthday entry must be completed.

Procedure

→ XXXXXX → [BIRTH]

Birthday (five or six digits)

Note

- *A birthday entry can be performed two or more times at any point during a transaction, however the last entered birthday remains in effect.*
- *You can enter the date as far back as 98 years.*

[Ex.] When the current year is 1998 : you can enter the year 1900-1998.
When the current year is 2001 : you can enter the year 1903-2001.

Example Oct. 2, 1985 (When dept. 17 is programmed as the age limitation "15".)

Key operation	Print
100285 [BIRTH] 300 [17] [CA/AT]	#10/02/85 DPT. 17 $3.00 CASH $3.00

When the programmability "Birthday print availability (#2616)" is programmed as "Allow", the birthday is printed.

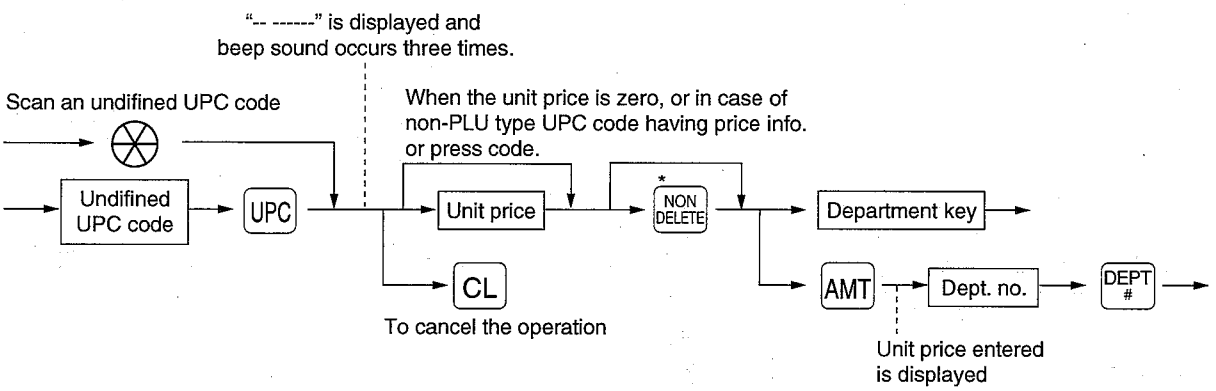
■ UPC learning function

When you enter or scan an undefined code, you are required to enter its unit price and the associated department. The number, associated department and unit price entered are stored in the UPC file and used for future UPC sales entries.

Note

- *When there is no capacity remained in the file, the data is not stored in the file.*
- *For the text for the UPC code, the text of its associated department is applied.*
- *You can use the UPC learning function in the training mode. This may be convenient to practice the scanning system.*

Procedure



* Press the NON DELETE key when you want to exempt the UPC code entered from the non-accessed UPC delete function (deletion by executing #105 in Z1 mode).

Note *For the repeat entry, use the REPEAT key.*

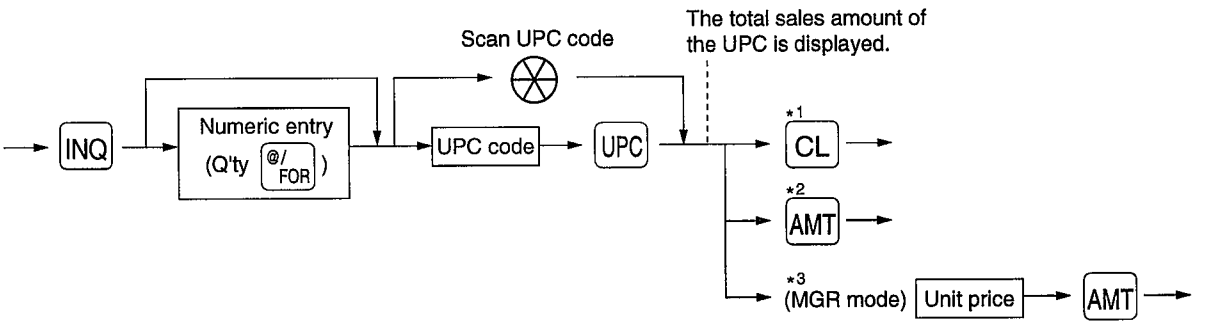
Example

	Key operation	Print
"-- ------" is displayed. →	5056789123404 UPC 750 5 CA/AT	5056789123404# DPT. 05 $7.50 CASH $7. 50

■ Price inquiry (view) function (for UPCs)

You can use this function when you want to know the unit price of the UPC item during transaction in the REG/MGR mode.

Procedure



*1: Press the CL key to cancel the the inquiring (view) mode.
*2: Press the AMT key when you want to register the unit price of the UPC displayed.
*3: You can change the unit price temporarily in the MGR mode. The unit price which is programmed in PGM mode is not changed (Price override entry).

Note *For the repeat entry, use the REPEAT key.*

Example

Key operation

"----" is displayed. ⟶
Price is displayed. ⟶

5 PLU/SUB
INQ
5089123456708 UPC
AMT
CA/AT

Print

PL000005	$2.00
5089123456708#	
GRAPE	$5.20
CASH	$7.20

■ Price change function (for UPCs)

You can use this function when you need to change the unit price or associated department of a UPC item in REG/MGR mode.

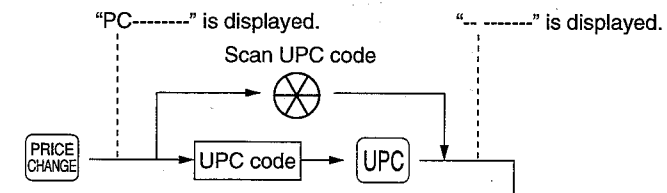
There are two methods for price change:

1. Price change mode
   You can change the preset price and/or the associated department of a UPC item without entering PGM mode.
2. Changing price during a transaction
   When a wrong UPC price and/or associated department is found during transaction, you can correct them at the time of transaction. With the entry of a new price and/or associated department, the preset price and/or associated department is automatically changed to the new price and/or associated department.

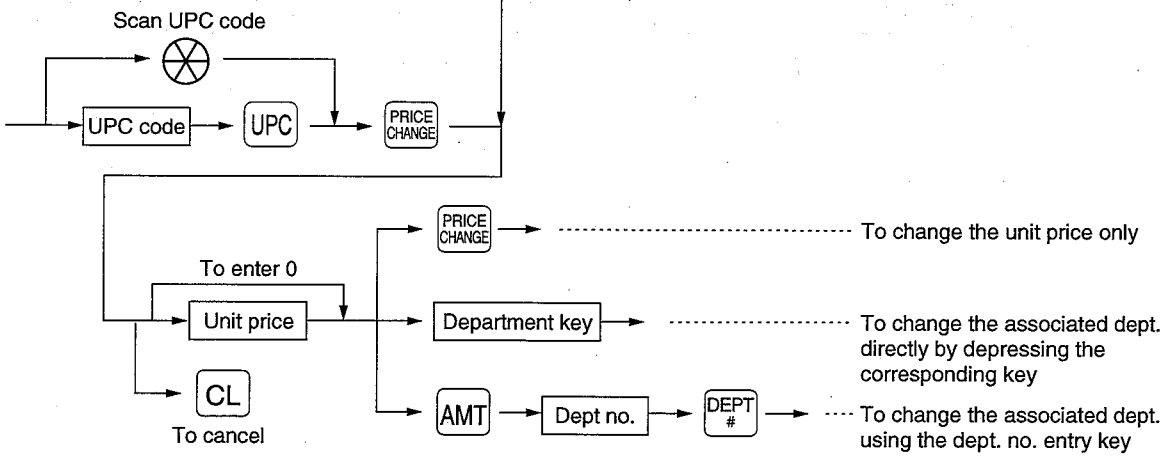
Note *For the Non-PLU type price embedded UPC-A codes and press codes, the prices in the codes have the priority over the preset prices. So, for these codes, a changed price is valid only when price change is executed.*

Procedure

Price change mode



Changing price during a transaction



Example

• **Price change mode**

Key operation	Print
PRICE CHANGE 5087654321106 UPC 600 PRICE CHANGE	*PR. CHNG * DEPT03 5087654321106# ORANGE $6.00

• **Changing a price during a transaction**

Key operation	Print
5087654321106 UPC PRICE CHANGE 600 PRICE CHANGE CA/AT	5087654321106# ORANGE $5.30 5087654321106# ORANGE V-5.30 5087654321106# ORANGE $6.00 CASH $6.00

The journal printer prints the following format in this position.

*PR. CHNG *
DEPT01

Associated dept. no.

Note

- *When an undefined code is entered in the price change mode, the register goes to an error status.*
- *When you press the PRICE CHANGE key during a transaction, the UPC entry is voided upon the 1st depression of the PRICE CHANGE key, then you are allowed to enter a correct price and/or associated department.*
- *When an associated department is changed, the item label for the department will be also changed automatically to the item label of new associated department.*
- *For the repeat entry, use the REPEAT key.*

■ Mix-and-match function (for UPCs)

Each UPC item can be preset to a mix-and-match table. All items that are programmed into the same table are treated as if they belong to one group. Item registration for each associated item is calculated against the table. Each table contains a quantity and specific dollar amount associated with it.

Example For the case where the total amount is $7.25 if the quantity of the merchandise PARTS-A, B, and C (whose unit price are each $1.35) sold reaches 6 in total.

Key operation

31111111111 [UPC]
[UPC]
3 [@/FOR] 32222222222 [UPC]
35555555555 [UPC]
[CA/AT]

Print

```
 311111111111#
PARTS-A          $1.35
 311111111111#
PARTS-A          $1.35
              3 @ $1.35
 322222222221#
PARTS-B          $4.05
 355555555551#
PARTS-C          $0.50

CASH            $7.25
```

■ Price level shift (for UPCs)

If the multi-price memories is created, the register allows you to program three kinds of unit price for a UPC. The unit price stays respectively at price level 1, price level 2, and price level 3.
When you enter a UPC, you can designate the price level (level 1/2/3) by using price level shift key.
You must program a UPC price level shift mode (i.e. automatic return mode* or lock shift mode**) and the operating modes to be used for UPC price level shift (i.e. both REG and MGR modes or MGR mode alone).

* The automatic return mode automatically shifts the UPC price level back to level 1 after a UPC entry. You can select whether the UPC price level should return each time you enter one item or each time you finalize one transaction.

** The lock shift mode holds the current UPC price level until pressing a price level shift key.

Automatic return mode (for price shifts)

(each item)

→ [P1] thru [P3] → [Item entry of a UPC] → Return to price level 1

(each transaction)

→ [P1] thru [P3] → [Item entry of a UPC] → [Finalization payment operation] → Return to price level 1

Lock shift mode (for price shifts)

→ [P1] thru [P3] → [Item entry of a UPC] → Stay in the current price level

2 Display of subtotals

Your register provides these four 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 [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 [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 [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 [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 [SBTL] key at any point during a transaction. The sale subtotal including tax and the symbol " □ " will appear in the display.

■ Food stamp-eligible subtotal

Press the [FS TEND] key at any point during a transaction. The sale subtotal of items eligible for food stamp payment will appear in the display.

3 Finalization of transaction

■ Cash or check tendering

Press the [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] or [CHK2] 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. When an amount due remains, tender an amount greater than that is displayed and select the appropriate tender key.

Example Your customer pays $10.00 for an including-tax subtotal of $7.35.

Cash tendering

Key operation	Print
[SBTL] 1000 [CA/AT]	***TOTAL $7.35 CASH $10.00 CHANGE $2.65

Check tendering

Key operation	Print
[SBTL] 1000 [CHK]	***TOTAL $7.35 CHECK $10.00 CHANGE $2.65

■ Mixed tendering (check + cash)

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

Key operation	Print
[SBTL] 1000 [CHK] 500 [CA/AT]	***TOTAL $14.56 CHECK $10.00 CASH $5.00 CHANGE $0.44

■ 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] or [CHK2] key if it is a check sale. Your register will display the total sale amount.

Example Selling a $3.00 item (dept. 6) and another $7.15 item (PLU no. 10) for cash

Key operation	Print
300 [6] 10 [PLU/SUB] [CA/AT]	DPT.06 $3.00 PL000010 $7.15 CASH $10.15

In the case of check sale

Print
CHECK $10.15

■ Charge (credit) sale

Enter items and press the corresponding charge keys ([CH] thru [CH5]).

Example Selling a $25.00 item (dept. 6) and a $32.50 item (dept. 7) and accepting the payment by charge account

Key operation	Print
2500 [6] 3250 [7] [CH]	DPT.06 $25.00 DPT.07 $32.50 CHARGE1 $57.50

Amount tendering operations (i.e., change calculations) can be achieved by the [CH] thru [CH5] key when it has been preset in PGM2 job #2320.

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

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

Key operation	Print
[SBTL] 950 [CA/AT] [CH]	***TOTAL $49.50 CASH $9.50 CHARGE1 $40.00

Note *Press the [CHK] or [CHK2] key or the [CH] thru [CH5] keys in place of the [CA/AT] key when your customer makes payment with checks or by charge cards.*

4 Food stamp calculations

■ Food stamp tendering

If your customer makes payment (or tendering) in food stamps, obtain the food stamp-eligible subtotal* by pressing the [FS TEND] key and make a food stamp tender entry before entering a cash or check tender.

Note *The food stamp-eligible subtotal* depends upon how your register is programmed based on the food stamp-eligibility of the automatic tax on a sale of items eligible for food stamp payment, or whether your register is programmed to allow the automatic tax to be paid with food stamps or not or to exempt taxation. The example below presupposes that your register has been programmed to exempt taxation.*

When the amount tendered in food stamps is greater than the food stamp-eligible subtotal:
Your register shows two change due amounts in its display.
The food stamp change due appears at the left of the display in dollars and the cash change at the right in cents.

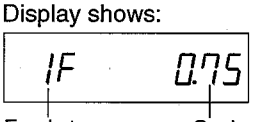
• When you sell only items eligible for food stamp payment.

Example Your customer purchases a $4.25 item (dept.4, taxable 1, eligible for food stamp payment) and another $4.00 item (PLU no.34, taxable 2, eligible for food stamp payment) and tenders $10.00 food stamps for them.

Key operation

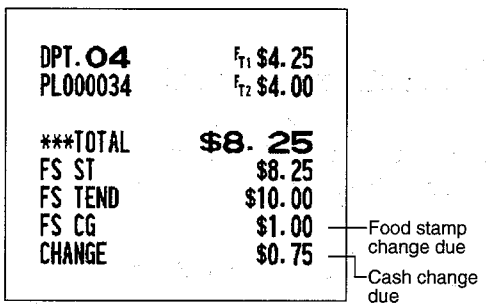
425 [4]
34 [PLU/SUB]
To display the food stamp-eligible subtotal → [FS TEND]
1000 [FS TEND]

Display shows:



Food stamp change — Cash change

Print



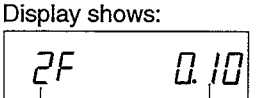
• Mixed sale of an item eligible for food stamps and another item not eligible for food stamps

Example Your customer purchases a $2.48 item (dept. 5, taxable 1, eligible for food stamps) and another $5.42 item (dept. 6, nontaxable, ineligible for food stamps) and pays $5.00 in food stamps and $5.00 in cash.

Key operation

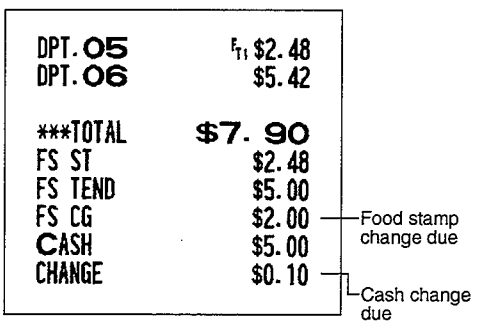
248 [5]
542 [6]
[FS TEND]
500 [FS TEND]
500 [CA/AT]

Display shows:



Food stamp change — Cash change

Print



When the food stamp tender is smaller than the food stamp-eligible subtotal:

- Accept the remainder in food stamps or in cash or check. If your register is programmed to exempt taxation, additional food stamp tender is not allowed.

Example Your customer buys a $3.18 item (dept. 5, taxable 1, eligible for food stamps) and another $1.24 item (dept.7, taxable 2, eligible for food stamps) and pays $4.00 in food stamps and the remainder - $1.00 in cash.

Key operation

318 [5]
124 [7]
[FS TEND]
400 [FS TEND]
To enter the cash tendering of the remainder → 100 [CA/AT]

Print

DPT.05	F_{T1} $3.18
DPT.07	F_{T2} $1.24
MDSE ST	$4.42
TAX2	$0.02
***TOTAL	$4.44
FS ST	$4.42
FS TEND	$4.00
CASH	$1.00
CHANGE	$0.56

■ Food stamp status shift

Your machine allows you to shift the programmed food-stamp status of each department, [⊖1] thru [⊖4], percent key, the UPC or the PLU key by pressing the [FS SHIFT] key prior to those keys. After each entry is completed, the programmed food stamp status is resumed.

Example You sell a $2.32 item of dept. 2 (food-stamp eligible) as a food-stamp ineligible item and another $3.18 item of PLU no. 86 (food-stamp ineligible) as a food-stamp eligible item and accept $4.00 in food stamps and $2.00 in cash.

Key operation

232 [FS SHIFT] [2]
86 [FS SHIFT] [PLU/SUB]
[FS TEND]
400 [FS TEND]
200 [CA/AT]

Print

DPT.02	$2.32
PL000086	F $3.18
***TOTAL	$5.50
FS ST	$3.18
FS TEND	$4.00
FS CG	$0.00
CASH	$2.00
CHANGE	$0.50

5 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 set 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 (dept. 1, taxable 1) and one $7.15 item (PLU no. 85, taxable 2) for cash

Key operation	Print
5 [@/FOR]	5 @ $6.70
670 [1]	DPT.01 T1 $33.50
85 [PLU/SUB]	PL000085 T2 $7.15
[CA/AT]	MDSE ST $40.65
	TAX1 $2.01
	TAX2 $0.29
	CASH $42.95

■ Manual tax

Your machine allows you to enter tax manually after item entries.

Example Selling an $8.00 item (dept. 7) for cash with 50 cents as tax

Key operation	Print
800 [7]	DPT.07 $8.00
50 [TAX]	M-TAX $0.50
[CA/AT]	CASH $8.50

■ 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 (dept. 1, taxable 1) and another $5.15 item (dept. 3, taxable 2) for cash and entering the sale as a non-taxable one

Key operation

725 [1]
515 [3]
[TAX1 SHIFT] [SBTL]
[TAX]
[TAX2 SHIFT] [SBTL]
[TAX]
[CA/AT]

Print

```
DPT.01          T1 $7.25
DPT.03          T2 $5.15
TAX1 ST           $0.00
TAX2 ST           $0.00

CASH            $12.40
```

If any of the media keys (i.e. cash, check or charge 1 thru charge 5) are programmed as tax delete in PGM2 mode, the tax can be deleted without using the procedures above. In this case, depressing a corresponding media key alone will always cause the programmed tax to be deleted.

Example When the [CA2] key is programmed as tax delete for the same case with the above example

Key operation

725 [1]
515 [3]
[CA2]

Print

```
DPT.01          T1 $7.25
DPT.03          T2 $5.15
MDSE ST          $12.40
TAX1              $0.00
TAX2              $0.00

CASH2           $12.40
```

■ Tax status shift

Your machine allows you to shift the programmed tax status of each department, [⊖1] thru [⊖4], percent key, the UPC or the PLU 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.

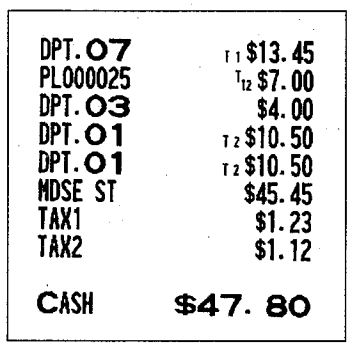
Example Selling the following items for cash with their programmed tax status reversed

- One $13.45 item of dept. 7 (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 dept. 3 (taxable 2) as a non-taxable item
- Two $10.50 items of dept. 1 (taxable 1) as taxable 2 items

Key operation

1345 [TAX1 SHIFT] [7]
25 [TAX1 SHIFT] [TAX2 SHIFT] [PLU/SUB]
400 [TAX2 SHIFT] [3]
1050 [TAX1 SHIFT] [TAX2 SHIFT] [1]
[1]
[CA/AT]

Print



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

Taxable 1 and 2 item ····· prohibited
Taxable 1 and 3 item ····· prohibited
Taxable 2 and 3 item ····· prohibited
Taxable 1 and 4 item ····· allowed
Taxable 2 and 4 item ····· allowed
Taxable 3 and 4 item ····· allowed

In case of; Tax 1: PST, Tax 2: PST, Tax 3: GST, Tax 4: GST

Taxable 1 and 2 item ····· prohibited
Taxable 1 and 3 item ····· allowed
Taxable 2 and 3 item ····· allowed
Taxable 1 and 4 item ····· allowed
Taxable 2 and 4 item ····· allowed
Taxable 3 and 4 item ····· prohibited

■ Percent calculations (premium or discount)

- Your register provides the percent calculation for the merchandise subtotal and item entries. You need to specify in advance whether the register should perform the percent calculation based on the merchandise subtotal or each item entered.
- Percentage: 0.01 to 99.99%

Percent calculation for the merchandise subtotal

Example Selling four $1.40 items of dept. 5 and two $2.25 items of dept. 7; 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 [%1] key.)

Key operation	Print
4 [@/FOR]	4 @ $1.40
140 [5]	DPT.05 $5.60
225 [7]	DPT.07 $2.25
[7]	DPT.07 $2.25
[MDSE SBTL]	MDSE ST $10.10
[%1]	10.00%
[CA/AT]	%1 T1 $1.01
	CASH $11.11

Percent calculation for item entries

Example Selling for cash an $8.00 item of dept. 6 at a discount of 15% and another $5.00 item of PLU no. 90 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 [6]	DPT.06 $8.00
[%2]	-15.00%
90 [PLU/SUB]	%2 -1.20
7 [•] 5 [%2]	PL000090 $5.00
[CA/AT]	-7.5%
	%2 -0.38
	CASH $11.42

■ Discount entries

For discount or coupon tenderings, you may use the ⊖1 thru ⊖4 key.
If the discount or tendered coupon is the one applicable to sales, use the vendor coupon or if it is applicable to each department key, use the store coupon.

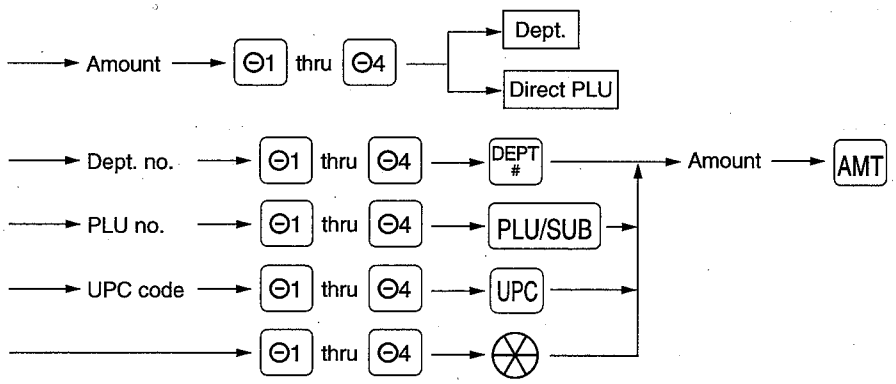
Discount for the merchandise subtotal

Example Selling a $5.75 item of dept. 6 and another $7.50 item of PLU no. 80 for cash after subtracting the discount amount $1.00 from the total sale amount
(This example presupposes that the vendor coupon has been programmed for the ⊖2 key.)

Key operation	Print
575 [6] 80 [PLU/SUB] 100 [⊖2] [CA/AT]	DPT. 06 $5.75 PL000080 $7.50 (–) 2 -1.00 CASH $12. 25

Discount for item entries

Procedure



Example Selling a $6.75 item of dept. 7 for cash after subtracting the coupon amount 75¢
(This example presupposes that the store coupon has been programmed for the ⊖1 key.)

Key operation	Print
675 [7] * 75 [⊖1] [7] [CA/AT]	DPT. 07 $6.75 (–) 1 DPT. 07 -0.75 CASH $6. 00

Note * *The ⊖1 is entered as a modifier for the department which will be netted by the coupon amount. Such item netting coupon entries may generally be entered at any point within a transaction. Two lines are printed for each entry: The first is the label programmed for the ⊖1 function and the second is related department and ⊖1 amount.*

■ Refund entries

If a refund item is the one entered into a department, enter the amount of the refund, then press the [RFND] key and the corresponding department key in this order; and if an item entered into a PLU (or UPC) is returned, enter the corresponding PLU number (or UPC code), then press the [RFND] and [PLU/SUB] (or [UPC]) keys, or press the [RFND] and direct PLU keys without entry of PLU number, in this order.

Example Receiving the following items returned:
One $2.50 item of dept.6 and seven $2.10 items of PLU no.13

Key operation	Print
250 [RFND] [6]	DPT.06 R-2.50
7 [@/FOR]	-7 @ $2.10
13 [RFND] [PLU/SUB]	PL000013 R-14.70
[CA/AT]	CHANGE $17.20

■ Refund sales mode

This function can be used only for those item return entries relating to departments and PLUs/subdepartments. Pressing the [RFND SALE] key at the beginning of a transaction causes the register to enter the REFUND SALES mode. All of the REFUND SALES mode entries are automatically handled as refund entries. This mode cannot be finalized by check payment entry.

Example Receiving the following items returned:
One $2.50 item of dept.6 and seven $2.10 items of PLU no.13

Key operation	Print
[RFND SALE]	DPT.06 R-2.50
250 [6]	-7 @ $2.10
7 [@/FOR]	PL000013 R-14.70
13 [PLU/SUB]	CHANGE $17.20
[CA/AT]	

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

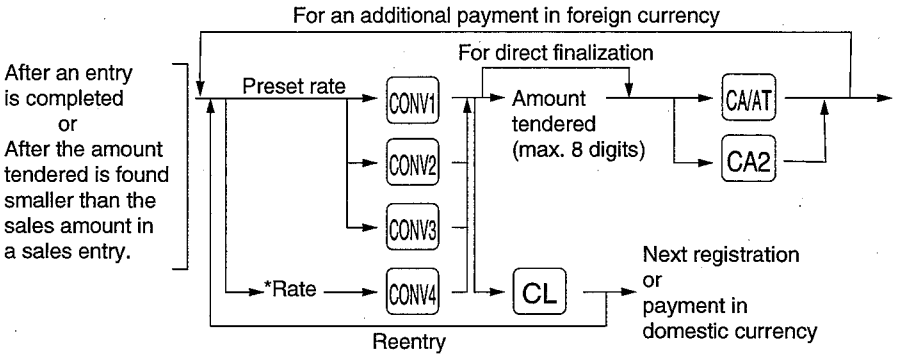
Example Selling a $15.00 item of dept. 6 by charge account to a customer whose code number is 1230

Key operation	Print
1230 [#]	#1230
1500 [6]	DPT.06 $15.00
[CH]	CHARGE1 $15.00

■ Currency conversion

Your register allows payment entries of foreign currency. Pressing the [CONV1] thru [CONV4] key creates a subtotal in foreign currency. Cash payment is the only media that 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

Preset rate (1.325) - CONV 1

Key operation

Currency conversion →
2300 [6]
4650 [7]
[CONV1]
Amount tendered in foreign currency →
10000 [CA/AT]

Print

```
DPT.06          $23.00
DPT.07          $46.50

***TOTAL        $69.50   ← Domestic currency
CONV 1           1.3250  ← Conversion rate
                92.09    ← Foreign currency
CASH           100.00    ← Foreign currency
CHANGE           $5.96   ← Domestic currency
```

Manual rate - CONV 4 (The [CONV4] key can be used only for the manual entry.)

Key operation

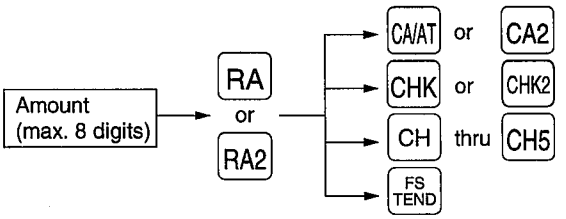
2300 [6]
4650 [7]
1 [.] 275 [CONV4]
10000 [CA/AT]

Print

```
DPT.06          $23.00
DPT.07          $46.50

***TOTAL        $69.50
CONV 4           1.275   ← Conversion rate
                88.62
CASH           100.00
CHANGE           $8.92
```

■ Received on account entries

Procedure

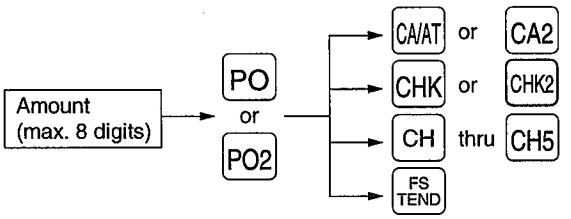


Example A customer whose code number is 12345 tenders $48.00 in check for received on account.

Key operation	Print
12345 [#] 4800 [RA] [CHK]	#12345 CHECK ***RA $48.00

■ Paid out entries

Procedure



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

Key operation	Print
6789 [#] 3000 [PO] [CHK]	#6789 CHECK ***PO $30.00

■ No sale (exchange)

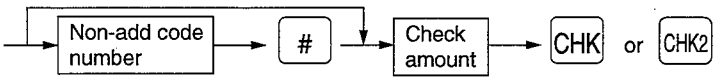
Simply press the [NS] key without any entry. The drawer will open and the printer will print "NO SALE" on both the journal and the receipt. If you let your machine print a non-add code number before pressing the [NS] key, a no sale entry is achieved with a non-add code number printed.

#45678
NO SALE

■ Cashing a check

Enter the check amount, then press the [CHK] or [CHK2] key.

Procedure



Example Cashing a check of $30.00 amount

Key operation	Print
6789 [#] 3000 [CHK]	#6789 CA/CHK $30.00

■ Bottle return

This function is used to handle the payment (paid out) for returned empty bottles or cans.

Example You pay for ten 15¢ returned empty bottles. (This example presupposes that dept. 11 has been programmed as bottle return department.)

Key operation	Print
10 [@/FOR] 15 [11] [CA/AT]	10 @-0.15 DPT. 11 -1.50 CHANGE $1.50

8 Automatic sequencing key ([AUTO] key) entries

You can achieve many different key sequences automatically with a single key depression by using the Auto function key.

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

Key operation	Print
[AUTO 2]	DPT. 07 $5.00 CASH $5.00

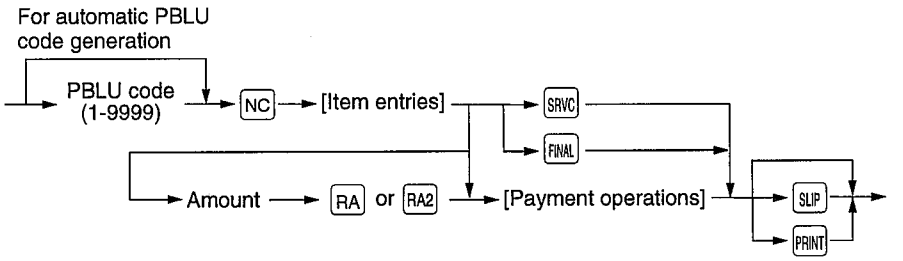
9 Guest Check (PBLU)

This feature is used to store and recall previous or credit balances of an open charge account when a previous balance lookup (PBLU) code is entered. The PBLU code can be 1 to 9999.

■ New charge accounts

For a new customer, open a new charge account and assign a PBLU code.

Procedure



Note

- *The PBLU code refers to a code that will be used whenever the guest check must be accessed for re-ordering or final payment.*
- *Your register can be programmed PBLU codes in a sequential fashion. If your register has no been programmed to do so, each PBLU code can be entered manually.*
- *When the SRVC key is pressed, the tax is not calculated.*
- *You can temporarily finalize a guest check by pressing the FINAL key. This print out a guest check to show the current balance, including tax. The guest check, however, is still "open". This means you can still make additional orders to it.*

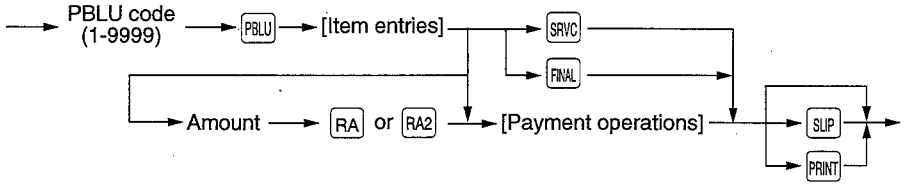
Example

Key operation	Print
1111 NC 3500 2 2700 3 FINAL	#1111 ***PBAL $0.00 DPT.02 T1 $35.00 DPT.03 $27.00 BAL FWD $62.00 MDSE ST $62.00 TAX1 $2.10 ***TOTAL $64.10

■ Additional item entries

For making additional guest check entries, enter the PBLU code first for automatic PB lookup. (Your register may be programmed to require that a check digit be added to the PBLU code.)

Procedure



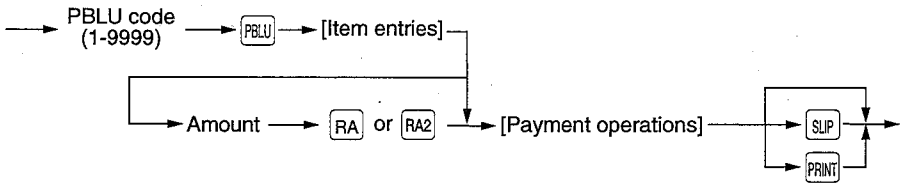
Example

Key operation	Print
1111 PBLU 1400 5 1600 6 FINAL	#1111 ***PBAL $64.10 DPT.05 $14.00 DPT.06 $16.00 BAL FWD $30.00 ***TOTAL $94.10

■ Settlement

Use the following procedure:

Procedure



Example

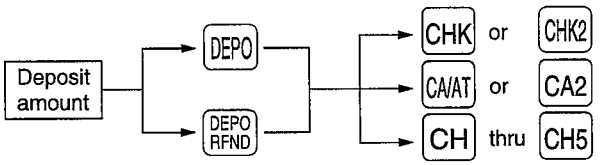
Key operation	Print
1111 PBLU 9410 RA 8000 CHK 1410 CA/AT	#1111 ***PBAL $94.10 BAL FWD $0.00 ***TOTAL $94.10 ***RA $94.10 CHECK $80.00 CASH $14.10 CHANGE $0.00 ***TOTAL $0.00

■ Deposit entries

Deposit refers to a payment on a charge account. It can be received in cash, check or by charge. You can make the deposit entry only while in a guest check transaction. It cannot be done during handling of a tendered amount.

A received deposit can be refunded by pressing the [DEPO RFND] key. You cannot attempt to refund an amount larger than the deposit balance.

Procedure



Example To record a $50.00 deposit in cash made by a customer with PBLU code 1111

Key operation

1111 [PBLU]
5000 [DEPO]
[CA2]
[SRVC]

Print

```
                #1111
***PBAL        $0.00
CASH2
DEPOSIT       $50.00
BAL FWD        $0.00
SERVICE       -50.00
```

Example To refund a $50.00 deposit made by a customer with PBLU code 1111

Key operation

1111 [PBLU]
5000 [DEPO RFND]
[CA2]
[SRVC]

Print

```
                #1111
***PBAL       -50.00
CASH2
DPST RF       -50.00
BAL FWD        $0.00
SERVICE        $0.00
```

CORRECTION

1 Correction of the last entry (direct void)

If you make an incorrect entry relating to a department, PLU/subdepartment, UPC, percentage ([%1] through [%4]), discount ([⊖1] through [⊖4]) or refund, you can void this entry by pressing the [VOID] key immediately after the incorrect entry.

Example

Key operation

1250 [6]
[VOID]
2 [PLU/SUB]
[VOID]
5012345678900 [UPC]
[VOID]
600 [8]
[%2]
[VOID]
328 [9]
28 [⊖1]
[VOID]
250 [RFND] [6]
[VOID]
[CA/AT]

Print

```
DPT.06          $12.50
DPT.06          V-12.50
PL000002         $1.50
PL000002         V-1.50
5012345678900#
APPLE            $2.50
5012345678900#
APPLE            V-2.50
DPT.08           $6.00
                -15.00%
%2               -0.90
%2               V$0.90
DPT.09           $3.28
(-) 1
DPT.09           -0.28
DPT.09           V$0.28
DPT.06           R-2.50
DPT.06           RV$2.50

CASH            $9.28
```

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

With the [VOID] key, you can void any incorrect department, PLU/subdepartment, UPC or item refund entry made during a transaction if you find it before finalizing the transaction (e.g. pressing the [CA/AT] key). This function is applicable to department, PLU/subdepartment, UPC and item refund entries only.
For this operation, press the [VOID] key just before you press a department key, [DEPT #] key, direct PLU key, [PLU/SUB] key or [UPC] key or just before you scan an UPC code. For the refund indirect void, press the [VOID] key after you press the [RFND] key.

Example

Key operation

1310 [6]
1755 [7]
10 [PLU/SUB]
[8]
58 [PLU/SUB]
825 [7]
5012345678900 [UPC]
1310 [VOID] [6]
[VOID] [8]
58 [VOID] [PLU/SUB]
5012345678900 [VOID] [UPC]
[CA/AT]

Print

```
DPT.06          $13.10
DPT.07          $17.55
PL000010         $7.15
PL000008         $3.00
PL000058         $3.00
DPT.07           $8.25
5012345678900#
APPLE            $2.50
DPT.06          V-13.10
PL000008         V-3.00
PL000058         V-3.00
5012345678900#
APPLE            V-2.50

CASH            $32.95
```

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
1310 [1] 1755 [6] 10 [PLU/SUB] 35 [PLU/SUB] Subtotal void [SBTL] [VOID] [SBTL]	DPT.01 T1 $13.10 DPT.06 $17.55 PL000010 $7.15 PL000035 $3.00 MDSE ST $40.80 SBTL VD -40.80 ***TOTAL $0.00

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.
The following steps should be observed:

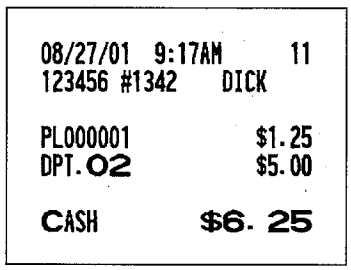
1. If you are in the middle of making an amount tendered entry, you must first finalize the transaction before making corrections.
2. Try to make correct entries from the beginning.
3. Hand the incorrect receipt to your manager for its cancellation.

CORRECTION AFTER FINALIZING A TRANSACTION (AFTER GENERATING A RECEIPT)

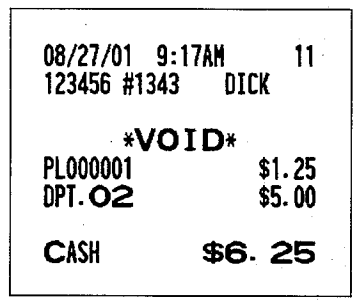
When you need to void incorrect entries that are found after finalizing a transaction or cannot be corrected by direct or indirect void, follow this procedure in the MGR mode.

1. Turn the mode switch to the MGR position.
2. Press the [VOID] key to put your register in the VOID mode.
3. 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.)

Incorrect receipt



Cancellation receipt



Note *Your machine leaves the VOID mode whenever a transaction is canceled (i.e. finalized in the VOID mode.) To void additional transactions repeat steps **2.** and **3.** above.*

OVERRIDE ENTRIES

Programmed limit for functions (such as for maximum amounts) can be overridden by making an entry in the MGR mode.

Procedure

1. Turn the mode switch to the MGR position.
2. Make the override entry.

Example Selling a $15.00 item (dept. 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		Print
	1500 [2]	
REG-mode entries	250 [⊖2] ...Error	
	[CL]	
Turn the mode switch to the MGR position.		
	250 [⊖2]	
Return the mode switch to the REG position.		
	[CA/AT]	

```
DPT.02          $15.00
(-) 2           -2.50
CASH            $12.50
```

SPECIAL PRINTING FUNCTIONS

1 Copy receipt printing

If your customer wants a receipt after you have finalized a transaction with the receipt function is in the "OFF" status (no receipting), press the [RCPT] key. This will produce a receipt. Your register can also print a copy receipt when the receipt function is in the "ON" status.

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

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

Key operation

850 [2]
3 [@/FOR]
150 [1]
[CA/AT]

For receipting→ [RCPT]

Print

Print on the journal

```
08/27/01  9:22AM      11
123456 #1345    DICK
DPT.02            $8.50
              3 @ $1.50
DPT.01            $4.50
CASH             $13.00
```

Print on the receipt

```
08/27/01  9:22AM      11
123456 #1345    DICK

DPT.02            $8.50
              3 @ $1.50
DPT.01            $4.50

CASH             $13.00
```

When the receipt function is in the "ON" status and you press the [RCPT] key to make a second copy

```
08/27/01  9:22AM      11
123456 #1345    DICK

      *COPY*
DPT.02            $8.50
              3 @ $1.50
DPT.01            $4.50

CASH             $13.00
```

When the receipt function is in the "ON" status, the "*COPY*" symbol will be printed on the receipt.

2 Validation printing function (Slip printer)

Your register can perform validation printing when it is connected with the slip printer. For the details about the slip printer, contact your authorized SHARP dealer.

1. Set a validation slip to the slip printer.
2. Press the [PRINT] key. The validation printing will start.

Note

- *When you make an entry for which compulsory validation printing has been programmed, the "U" will light up in the display. Carry out the validation printing successively until the "U" goes off (or by the programmed number of times) while replacing validation slips. You cannot proceed to any further entry unless this printing is completed.*
- *Programmed compulsory validation printing can be overridden by performing the following operation depending upon your initial program setup.*

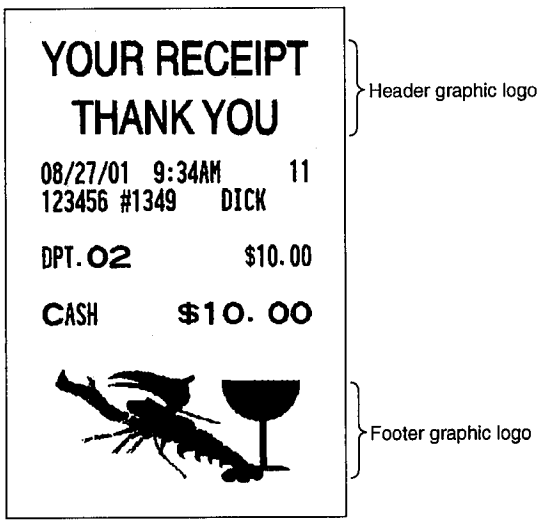
1. *Turn the mode switch to the "MGR" position.*

2. → [•] → [PRINT]

3 Printing of header and footer graphic logos

As an optional setting, your register can print a graphic logo on the top of each receipt (header graphic logo), and another graphic logo can be printed on the bottom of each receipt (footer graphic logo) with the job code #2616. You can also print the graphic logos with the combination of 3-line header logo message or 3-line footer logo message, or can print only logo messages without graphic logo. Consult your dealer when you want to change the setting.

• Sample receipt with a header graphic logo and a footer graphic logo

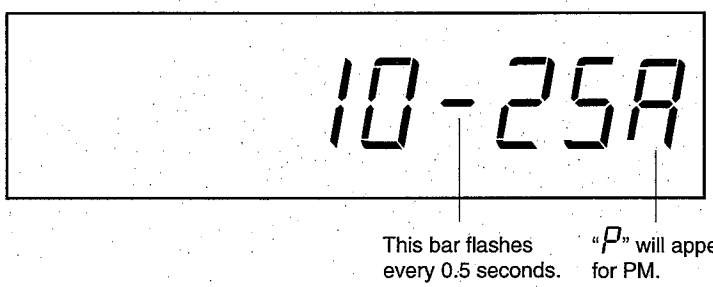


TIME DISPLAY AND AUTOMATIC UPDATING OF THE DATE

1 Time display

When you need the time displayed, turn the mode switch to the OP X/Z position after the preceding transaction or operation is finalized.
You can also display the time by pressing the [#] key in the REG or MGR mode.
The time display disappears as soon as you press the [CL] key in the REG or MGR mode or begin the subsequent entry.

Sample display of 10:25 AM



2 Automatic updating of the date

Once the internal clock unit is started at the correct time, it continues to run as long as the built-in battery is charged, and updates the date (month, day, year) properly.

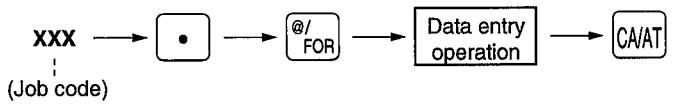
PRIOR TO PROGRAMMING

1 General instructions

This chapter illustrates how to program your cash register.
All the programming items can be programmed by the **Job-Code-Based Programming** described later. However, your machine allows you to program some items using the **Direct Programming**, which does not require you to enter the job code.

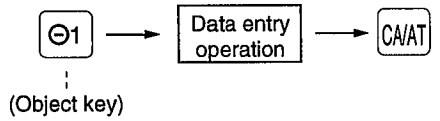
Job-Code-Based Programming

Primitive procedure



Direct Programming

Sample procedure



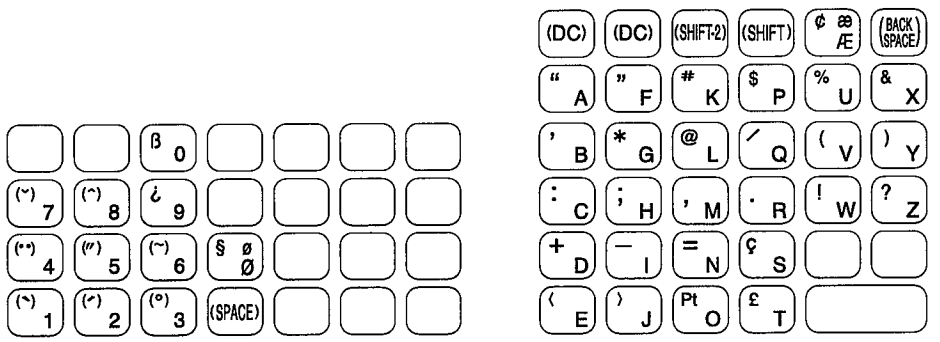
2 How to program alphanumeric characters

You can program alphanumeric characters for departments, PLUs, UPCs, functions and so on in the character entry mode.

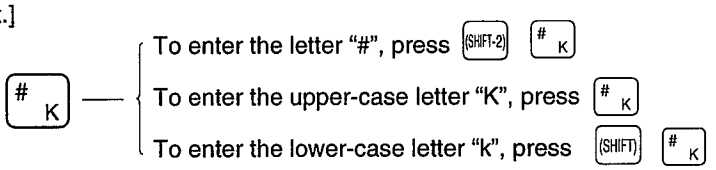
There are two ways for programming characters: **using character keys on the keyboard** and **entering character codes with numeric keys on the keyboard**.

■ Using character keys on the keyboard

Enter a character according to the position of the figure shown below.



[Ex.]



- Numerals, letters and symbols are programmable simply by pressing the keys.
- Characters may only be entered in single size or in double size. **By default, the single-size character mode is selected.** To enter a character in double size, press the (DC) key before you enter the character.

Example To program the word "SHARP" in double size, do the following key-in.

(DC) S (DC) H (DC) A (DC) R (DC) P

- Letters of alphabets "A" through "Z" are possible to be entered in lower case or in upper case. **By default, the upper-case letter mode is selected.** To enter a character in lower case, press the (SHIFT) key before you enter the character. To return to the upper-case letter mode, press the (SHIFT) key again.

Example To program the word "Sharp", do the following key-in.

S (SHIFT) H A R P

- Symbols and special letters are programmable by using the (SHIFT-2) key. To enter a character, press the (SHIFT-2) key before you enter the character.

Example To program letters "# Ä Å" with the letter "#" being double size

(DC) (SHIFT-2) # (SHIFT-2) (¨) A (SHIFT-2) (°) A

Editing the characters

You can edit the characters you entered. Pressing a character key replaces the current character with a new one. To edit the characters, use the (BACK SPACE) key.

(BACK SPACE): Backs up the cursor, erasing the character to the left.

■ Entering character codes with numeric keys on the keyboard

- Numerals, letters and symbols are programmable by entering the character code and 00 key. See the alphanumeric character code table on the next page. In this way, you can program characters other than the characters on the programming key sheet.

XXX → 00 XXX: Character code (3 digits)

- Double-size characters can be made by entering the chacacter code 253.

Example To program the word "SHARP" with the letter "S" being double size

253 00 083 00 072 00 065 00 082 00 080 00

S H A R P

Alphanumeric character code table

Character	Code	Character	Code	Character	Code	Character	Code	Character	Code	Character	Code
Space	032	4	052	H	072	Ö	092	p	112	4	132
!	033	5	053	I	073	Ü	093	q	113	½	133
"	034	6	054	J	074	^	094	r	114	F_T	134
#	035	7	055	K	075	_	095	s	115	←	135
$	036	8	056	L	076	'	096	t	116	→	136
%	037	9	057	M	077	a	097	u	117	∞	137
&	038	:	058	N	078	b	098	v	118	∞	138
'	039	;	059	O	079	c	099	w	119	◄	139
(	040	<	060	P	080	d	100	x	120	►	140
)	041	=	061	Q	081	e	101	y	121	F	141
*	042	>	062	R	082	f	102	z	122	T	142
+	043	?	063	S	083	g	103	{	123	*(DC)	253
(Comma) ,	044	@	064	T	084	h	104	|	124		
–	045	A	065	U	085	i	105	}	125		
(Period) .	046	B	066	V	086	j	106	ß	126		
/	047	C	067	W	087	k	107	¢	127		
0	048	D	068	X	088	l	108	!!	128		
1	049	E	069	Y	089	m	109	1	129		
2	050	F	070	Z	090	n	110	2	130		
3	051	G	071	Ä	091	o	111	3	131		

* (DC): Double-size character code

PROGRAMMING

Your machine allows you to program in two modes: PGM1 and PGM2. The PGM1 mode is for programming those items that need to be changed often: unit prices of departments/PLUs/UPCs, and percentages. The PGM2 mode is used for programming all PGM1-mode programs and those items that require less frequent changes: date, time, tax table, tax rate, and the functions of each key. We describe below the programming or setting procedures of various items.
Program every item necessary for your store following the appropriate procedures.

* To set the mode switch to the PGM1 position, use the manager or submanager key; and to set to the PGM2 position, use the manager key.

■ Preparations for Programming

1. Plug your machine into a standard wall outlet.
2. Put the manager or submanager key in the mode switch and turn it to the PGM1 or PGM2 position depending upon the programming you are about to do.
3. Check to see whether both journal and receipt rolls are present in the machine. If they are missing, install journal and receipt paper rolls correctly referring to the procedure in "5. Installing and removing the paper roll" under "OPERATOR MAINTENANCE".
4. Program necessary items into your machine.

■ Direct Programming

1 Setting the date and time

■ Date PGM 2

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

Procedure

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

Example Aug. 26, 2001

Key operation	Print
082601 [#]	08/26/01 12:00AM 000000 #0001 #2610 *PGM2* 08/26/01 — Date

■ Time PGM 2

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 using a 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 → [#]
Time (max. four digits)

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

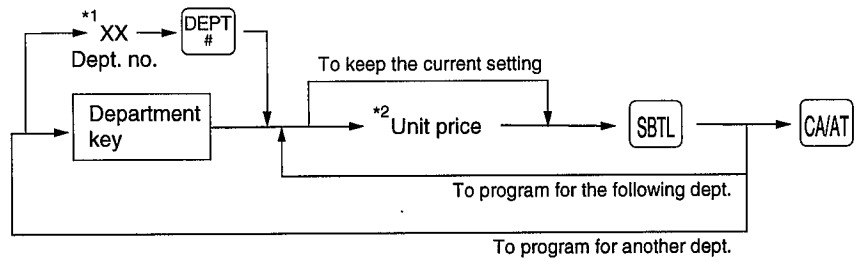
Key operation	Print
1430 [#]	08/26/01 2:30PM 000000 #0002 #2611 *PGM2* 2:30PM (Time)

2 Programming for departments

Your machine is equipped with 20 standard departments and up to 50 maximum departments may be preset. Your machine allows you to perform the following programming for each department:

■ Unit price PGM 1 PGM 2

Procedure



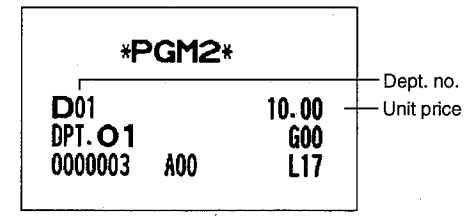
*1 Department no.: 1 to 50
*2 Unit price: max. six digits ($9999.99)

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 [SBTL] key to program this setting.	[SBTL]	02 0.00

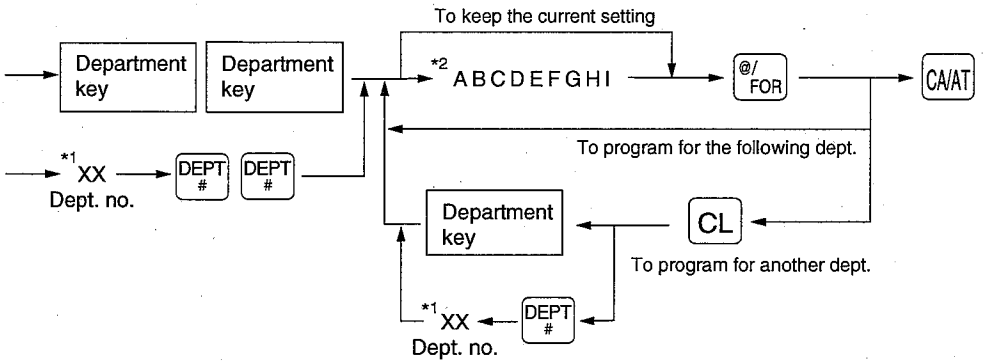
4. Press the CA/AT key to finalize the programming and generate a programming report. CA/AT 0.00

Print



■ Functional selection PGM 2

Procedure



*1 Department no.: 1 to 50

*2 Item		Selection	Entry
A	Sign (plus/minus)	Plus	0
		Minus	1
B	Food stamp status	Ineligible	0
		Eligible	1
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)/ SIF (Single Item Finalization)	Normal	0
		SICS	1
		SIF	2
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.*
- *Tax 4 is prohibited if you use the food stamp function.*

Normal department/SICS (Single Item Cash Sale) / SIF (Single Item Finalization)

- *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.*
- *Whenever a sale is made to a department set for SIF, the sale is finalized as soon as the department 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

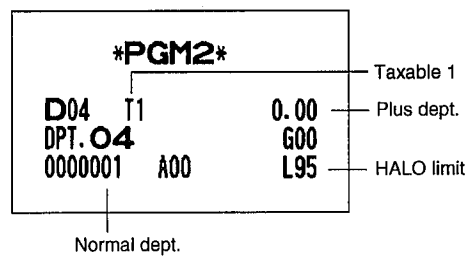
[00] ·····Moves the blinker to the left. 0 0 0 0 0 0 0 1 7 → 0 0 0 0 0 0 0 1 7

- 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

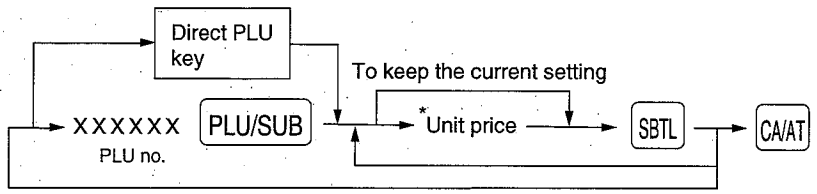


3 Price lookup (PLU) programming

A PLU number can be up to six digits (free code).

■ Unit price PGM 1 PGM 2

Procedure



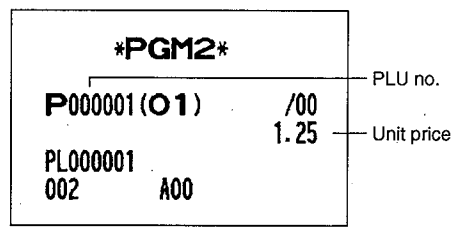
*Unit price: max. six digits ($9999.99)

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 9999.99 preset means no limitation. In the case of PLUs, zero and 9999.99 presets have no special meaning. (i.e. a 0 amount preset is available.)*

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

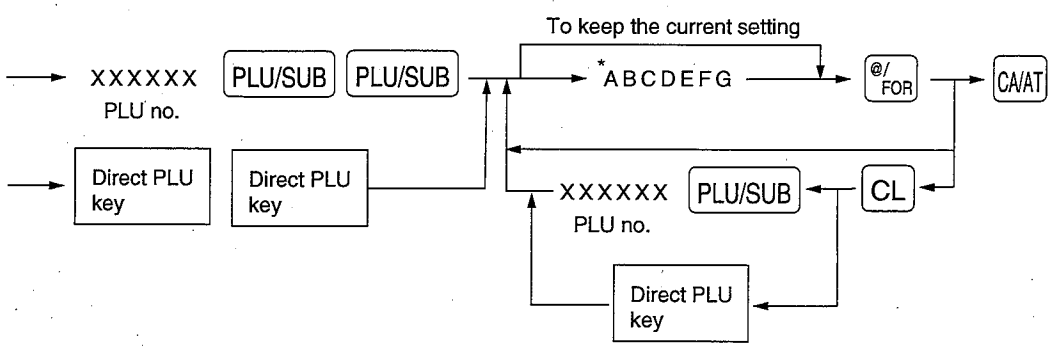
1. Enter the PLU number "1" and press the PLU/SUB key.	1 PLU/SUB	000001 0.00
2. Enter the unit price "125."	125	000001 125
3. Press the SBTL key to program this setting.	SBTL	000002 0.00
4. Press the CA/AT key to finalize the programming and generate a programming report.	CA/AT	0.00

Print



■ Functional selection PGM 2

Procedure



* Item		Selection	Entry
A	Sign (plus/minus)	Plus	0
		Minus	1
B	Food stamp status	Ineligible	0
		Eligible	1
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)

- *Tax 4 is prohibited if you use the food stamp function.*
- *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.*

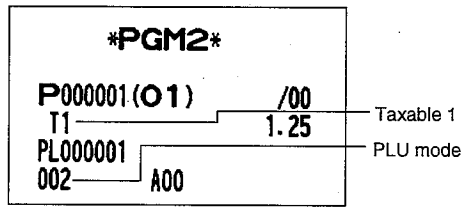
Mode parameter

- *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.*

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

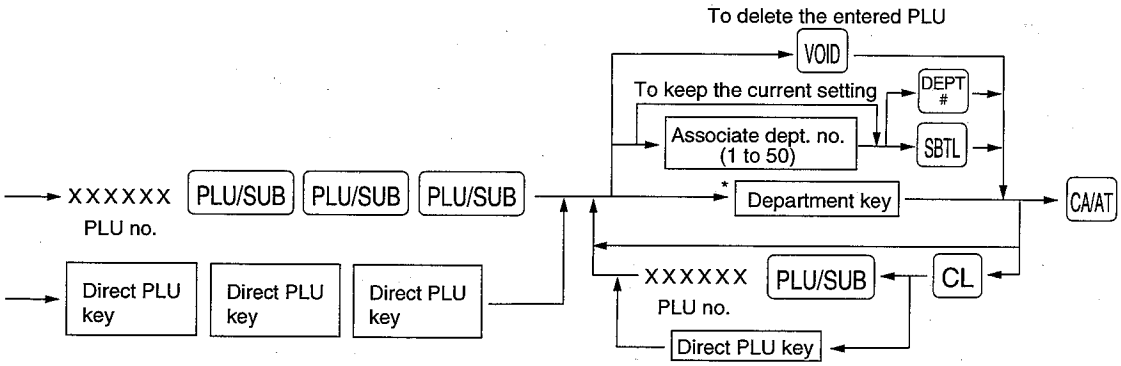
		A B C D E F G
1. Enter the PLU number "1" and press the PLU/SUB key twice.	1 PLU/SUB PLU/SUB	P 0 0 0 0 0 0 2
2. Set the parameters A to G. •You can go to the desired position with the 00 or • key.	0000012	P 0 0 0 0 0 1 2
3. Press the @/FOR key to program this setting.	@/FOR	P 0 0 0 0 0 0 2
4. Press the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

Print



■ PLU assignment to departments PGM 1 PGM 2

Procedure



*Refers to the department key to be associated with the entered PLU

Note

- *The following functions of the PLU depend on the programming for its associated department:*
  - *Type (Bottle return/Hash/Normal)*
  - *SICS (Single Item Cash Sale)/SIF (Single Item Finalization)/Normal*
  - *Item validation print compulsory/non-compulsory*

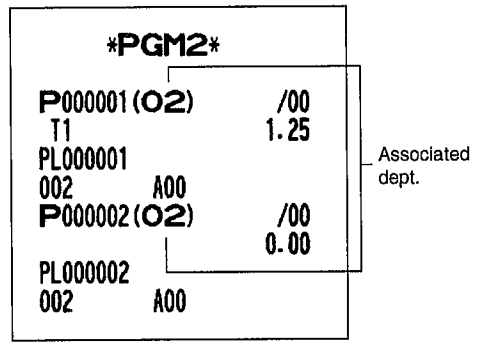
Example Assigning PLU nos. 1 and 2 to department 2

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

3. Press the department 2 key to assign PLU no. 2 to department 2. [2] → 000003 01

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

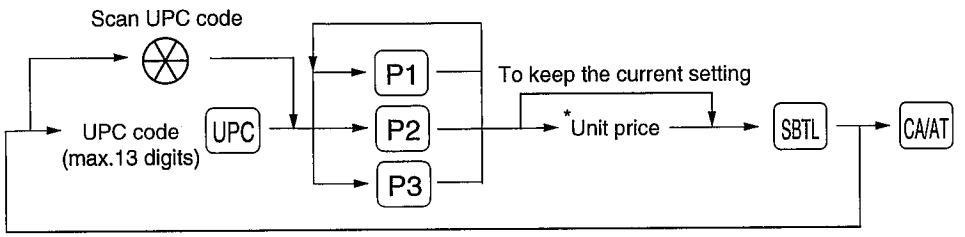
Print



4 UPC/EAN programming

■ Unit price PGM 1 PGM 2

Procedure



*Unit price: max. six digits ($9999.99)

Note • *The entry of a UPC code through the scanner is indicated by ⊛.*

Example Programming the unit price 2.50 for UPC code 5012345678900.

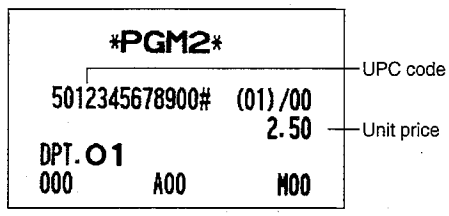
1. Scan the UPC code, or enter the UPC code "5012345678900" and press the [UPC] key. ⊛ or 5012345678900 [UPC] → P 0.00

2. Enter the unit price "250." 250 → P 250

3. Press the [SBTL] key to program this setting. [SBTL] → P 0.00

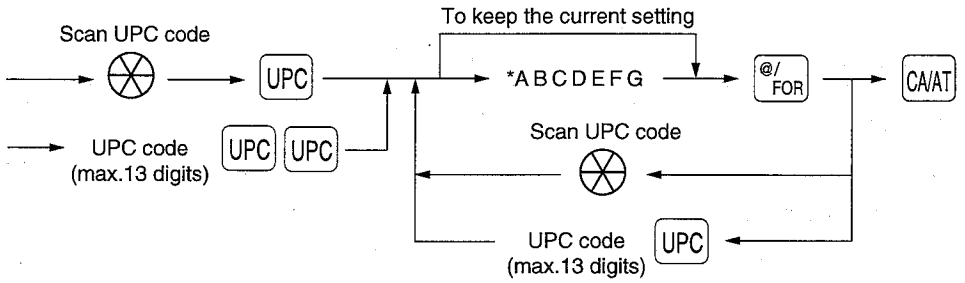
4. Press the [CA/AT] key to finalize the programming and generate a programming report. [CA/AT] → 0.00

Print



■ Functional selection PGM 2

Procedure



*	Item:		Selection:	Entry:
	A	Sign (plus/minus)	Plus	0
			Minus	1
	B	Food stamp status	Ineligible	0
			Eligible	1
	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	Delete method (To erase from the UPC file)	Delete in non-accessed UPC deleting job (#105 in Z1 mode)	0
			Inhibit to delete in non-accessed UPC deleting job (#105 in Z1 mode)	1
			Delete now	4

Note

Sign (plus/minus)

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

Sign		*Function of UPC*
Department	*UPC*	
+	+	*Serves as a normal plus UPC*
−	−	*Serves as a normal minus UPC*
+	−	*Accepts vendor coupon entries, but not split-pricing entries*
−	+	*Not valid; not accepted*

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

- *Tax 4 is prohibited if you use the food stamp function.*
- *A UPC not programmed for any of Tax 1 thru Tax 4 is registered depending on the tax status of the department which the UPC belongs to.*

Delete method

- *When you select "Delete now", the programmed data of the UPC code you specified is deleted with this programming.*
- *When you select "Delete in X/Z non-accessed UPC deleting job", you can delete UPCs that has not been accessed during the period that is programmed in the job #2029 with the execution of UPC deleting job (#105 in Z1 mode).*

Example Programming for UPC code 5012345678900 as follows: A=0, B=0, C=0, D=0, E=0, F=1 and G=1.

1. Scan the UPC code and press the [UPC] key, or enter the UPC code "5012345678900" and press the [UPC] key twice.

⊛ [UPC]
or
5012345678900 [UPC] [UPC]

	A	B	C	D	E	F	G
P	0	0	0	0	0	0	0

2. Set the parameters A to G.
•You can go to the desired position with the [00] or [•] key.

0000011

	A	B	C	D	E	F	G
P	0	0	0	0	0	1	1

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

[e/FOR]

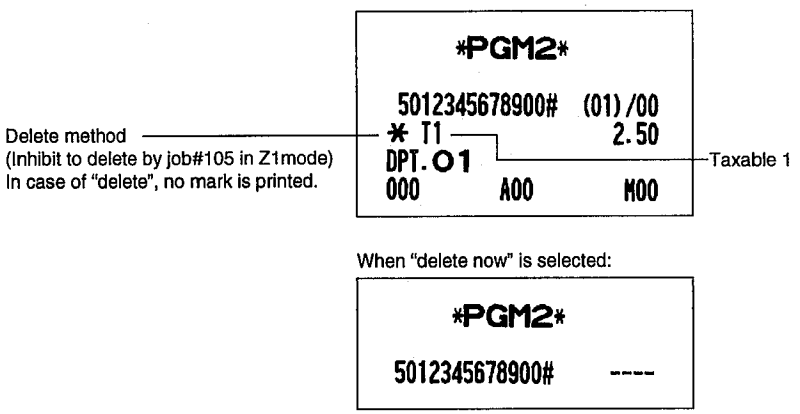
P	0	.00

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

[CA/AT]

	0	.00

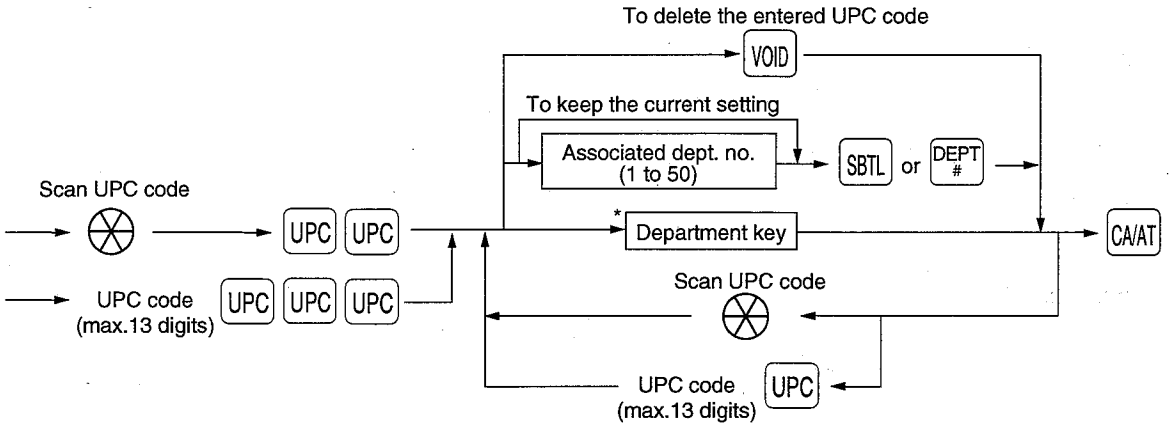
Print



When "delete now" is selected:

■ UPC assignment to departments PGM 1 PGM 2

Procedure



*Refers to the department key to be associated with the entered UPC code

Note

- *The following functions of the UPC code depend on the programming for its associated department:*
  - *Type (Bottle return/Hash/Normal)*
  - *SICS (Single Item Cash Sale)/SIF (Single Item Finalization)/Normal*
  - *HALO (high amount lockout)*

Example Assigning UPC code 5012345678900 to department 2

1. Scan the UPC code and press the [UPC] key twice, or enter the UPC code "5012345678900" and press the [UPC] key three times.

⊗ [UPC] [UPC]
or
5012345678900 [UPC] [UPC] [UPC]

P 01

2. Press the department 2 key to assign UPC code 5012345678900 to department 2.

[2]

P 0.00

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

[CA/AT]

0.00

Print

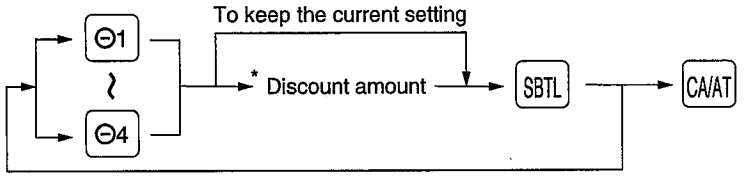
```
*PGM2*

5012345678900# (02)/00
* T1            2.50
DPT.01
000      A00     M00
```

Associated dept.

5 Programming for discount keys

■ Discount amount (⊖) PGM 1 PGM 2

Procedure

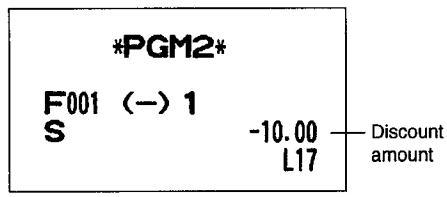


*Discount amount: 0 - 999999

Example Assigning $10.00 to the ⊖1 key

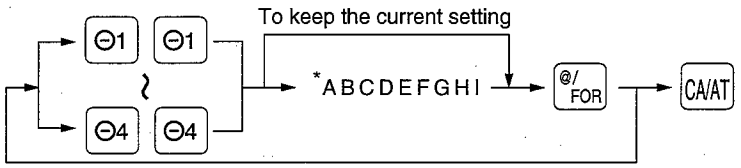
1. Press the ⊖1 key.	⊖1	001 0.00
2. Enter the discount amount "1000."	1000	001 1000
3. Press the SBTL key to program this setting.	SBTL	001 10.00
4. Press the CA/AT key to finalize the programming and generate a programming report.	CA/AT	0.00

Print



■ High amount lockout (HALO), food stamp status, and tax status (⊖) PGM 2

Procedure



*	Item		Selection	Entry
	A	Sign (plus/minus)	Plus	0
			Minus	1
	B	Food stamp status	Ineligible	0
			Eligible	1
	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

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

Tax 4 is prohibited if you use the food stamp function.

HALO (High Amount Lockout)

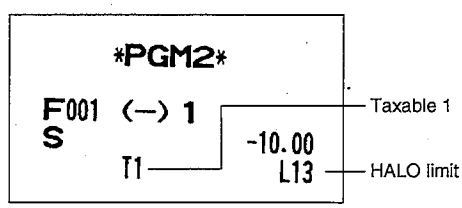
***HI** is the same as H x 10^I.*

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 ⊖1 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 ⊖1 key twice.	⊖1 ⊖1	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

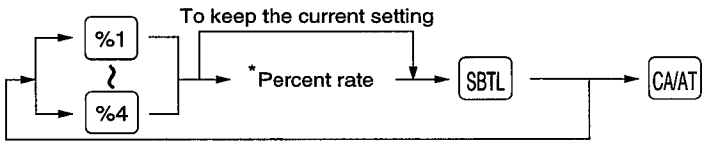
Print



6 Programming for percent keys

■ Percent rate ([%]) PGM 1 PGM 2

Procedure



* Percent rate: 0.00 - 100.00

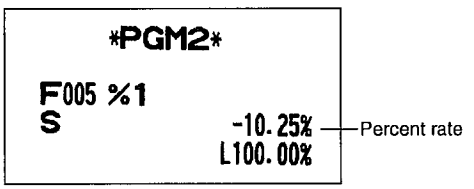
Note *You must use a decimal point when setting percentage rates that are fractional.*

Example Assigning 10.25% to the [%1] key

Key operation

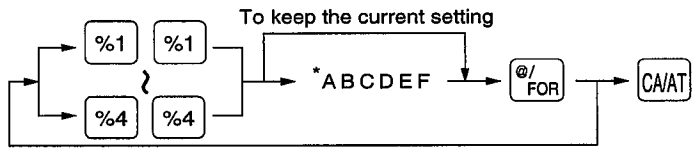
[%1] 10 [•] 25 [SBTL] [CA/AT]

Print



■ Sign (+/-), food stamp status, and tax status ([%]) PGM 2

Procedure



*	Item	Selection	Entry
A	Sign (plus/minus)	Plus (premium)	0
		Minus (discount)	1
B	Food stamp status	Ineligible	0
		Eligible	1
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

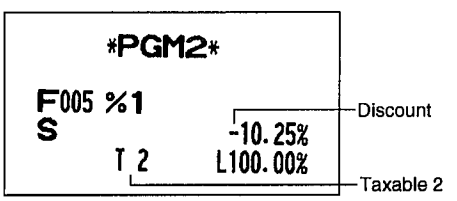
Note ***Tax status (taxable 1 thru 4/non-taxable)***
Tax 4 is prohibited if you use the food stamp function.

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

Key operation

[%1] [%1] 100010 [@/FOR] [CA/AT]

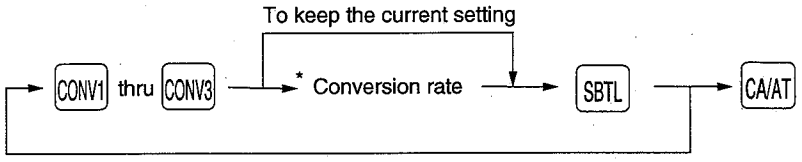
Print



7 Programming for conversion keys

■ Currency conversion rate (CONV) PGM 1 PGM 2

Procedure



* Currency conversion rate: 0.0000 - 9999.9999

Note *You must use a decimal point when setting conversion rates that are fractional.*

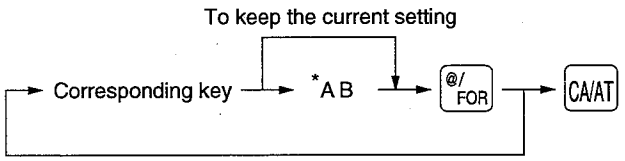
Example Assigning 1.325 to the CONV1 key

Key operation	Print
CONV1 1 • 3250 SBTL CA/AT	*PGM2* F071 CONV 1 1.3250 — Conversion rate

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

■ High amount lockout (HALO) (CA2, RA, PO, CH, CHK, and TAX) PGM 2

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 (CA2/RA/PO/CH/CHK: 0 thru 8, TAX: 0 thru 7)

Note *For the TAX key, press the TAX key twice.*

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

Key operation	Print
CH2 15 @/FOR CA/AT	*PGM2* F078 CHARGE2 L15 — HALO limit 0000 00000000

9 Programming for the automatic tax calculation function

Your machine has an automatic tax calculation feature which allows you to program four tax tables to avoid calculating incorrect tax amounts.
Automatic tax calculations require you to program, in addition to the tax table, the tax status of each pertinent department, PLU, UPC, and function key.

■ The tax table (applicable to the add-on tax) PGM 2

Sample tax table

New Jersey tax table: 6%

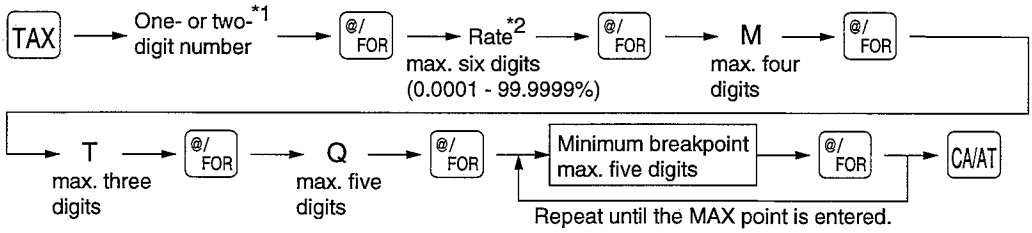
	Range of sales amount		
Taxes	**Minimum breakpoint**		**Maximum breakpoint**
.00	.01	to	.10
.01 ← T	.11 ← Q	to	.22
.02	.23	to	.38
.03	.39	to	.56
.04	.57	to	.72
.05	.73	to	.88
.06	.89	to	1.10
.07	1.11 ← M1	to	1.22
.08	1.23	to	1.38
.09	1.39	to	1.56
.10	1.57	to	1.72
.11	1.73	to	1.88
.12	1.89	to	2.10
.13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

To program a tax table, first make a table like the right table shown above.
From the tax table, calculate the differences between a minimum break point and the next one (A). Then, from the differences, find irregular cycles (B) and regular cycles (C and D). These cycles will show you the following items necessary to program the tax table:

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 a 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 **First figure:** The first figure to be entered depends upon whether the difference between a minimum breakpoint to be entered and the preceding minimum breakpoint is not less than $1.00 or more than 99¢. When the difference is not less than $1.00, enter "1," and when it is not more than 99¢, enter "0" or nothing.

Second figure: The second figure depends upon whether your tax table is to be programmed as tax table 1, 2, 3 or 4. When your tax table is to be programmed as tax table 1, enter "1"; when it is to be programmed as tax table 2, enter "2"; when it is to be programmed as tax table 3, enter "3"; and when it is to be programmed as tax table 4, enter "4".

*2 If the rate is fractional (e.g. 4-3/8%), then the fractional portion (3/8) would be converted to its decimal equivalent (i.e. .375) and the resulting rate of 4.375 would be entered. Note that the nominal rate (R) is generally indicated on the tax table.

Note *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 SBTL key. Then program again from the beginning correctly.*

• Limitations to the entry of minimum breakpoints

Your register can support a tax table consisting of no more than 72 breakpoints. (The number of breakpoints is 36 maximum when the breakpoint difference is $1.00 or more.) If the number of breakpoints exceeds the register's table capacity, then the manual entry approach should be used.

Example Programming the sample tax table shown on the previous page as tax table 1

Key operation

	TAX
	1 @/FOR
Tax rate →	6 @/FOR
M →	100 @/FOR
T →	1 @/FOR
Q →	11 @/FOR
The first cyclic portion	23 @/FOR
	39 @/FOR
	57 @/FOR
	73 @/FOR
M1 (MAX point)→	89 @/FOR
	111 @/FOR
	CA/AT

Print

```
*PGM2*
TAX1          6.0000%
              / 1.00
           1    0.11
           2    0.23
           3    0.39
           4    0.57
           5    0.73
           6    0.89
           7    1.11
```

Note *You do not need to enter the trailing zeros of the tax rate (after the decimal point) but you do need to enter the decimal point for fractions.*

- **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.

Sample tax table
Example 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

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.

2110 → [•] → [@/FOR] →

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

Note *When setting the parameters for a job code, the digit that is blinking is the one that can be changed. To go to the position of the parameter that you want to change, press either of the following keys :*
[•] *Moves the blinker to the right.*
[00] *Moves the blinker to the left.*

1 Setting the date and time

■ Setting the date PGM 2 2610 Direct

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

Procedure

2610 → [•] → [@/FOR] → Date (five or six digits) → [CA/AT]

Example Aug. 26, 2001

Key operation	Print
2610 [•] [@/FOR] 82601 [CA/AT]	08/26/01 12:00AM 000000 #0001 #2610 *PGM2* Date → 08/26/01

■ Setting the time PGM 2 2611 Direct

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 is printed and displayed on the real time system.

Procedure

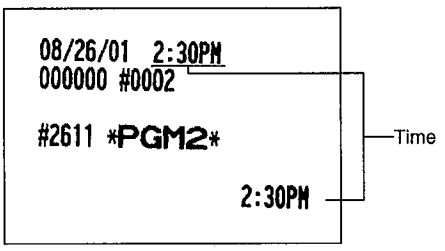
2611 → [•] → [@/FOR] → Time (max. four digits) → [CA/AT]

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

Key operation

2611 [•] [@/FOR]
1430 [CA/AT]

Print

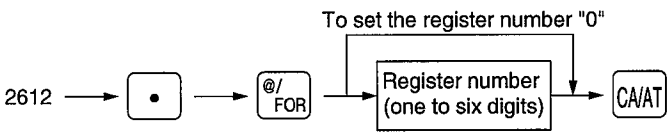


2 Setting the register and consecutive numbers

■ Setting the register number PGM 2 2612

When your store has two or more registers, it is practical to set separate register numbers for their identification. You may set them in a maximum of six digits.

Procedure

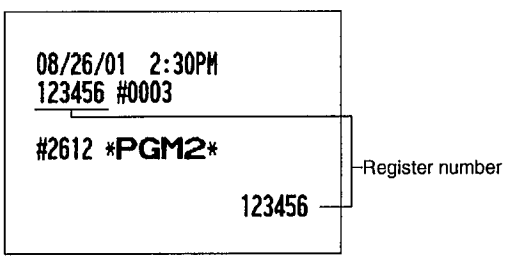


Example To set the register number as "123456"

Key operation

2612 [•] [@/FOR]
123456 [CA/AT]

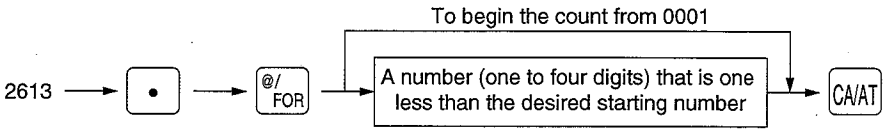
Print



■ Setting the consecutive number PGM 2 2613

The consecutive number is increased by one each time an operation is completed (e.g. sales transaction, report, etc).
Enter a number (one to four digits) that is one less than the desired starting number.

Procedure



Example Setting the count start number as "1001"

Key operation	Print
2613 • @/FOR 1000 CA/AT	08/26/01 2:30PM 123456 #1000 #2613 *PGM2* 1000 (Consecutive number)

3 Programming for the automatic tax calculation function

Your machine has an automatic tax calculation feature which allows you to program four tax tables or rates to avoid calculating incorrect tax amounts.
Automatic tax calculations require you to program, in addition to the tax table and rate, the tax status of each pertinent department, PLU, UPC, and function key.

■ The tax table (applicable to the add-on tax) PGM 2 2710 Direct

Sample tax table

New Jersey tax table: 6%

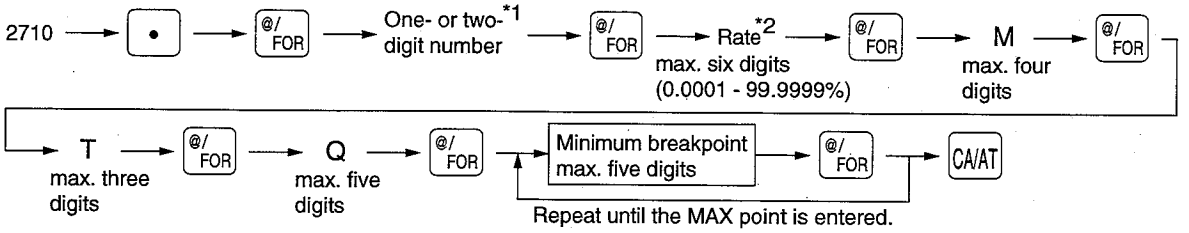
	Range of sales amount		
Taxes	**Minimum breakpoint**		**Maximum breakpoint**
.00	.01	to	.10
.01 ← T	.11 ← Q	to	.22
.02	.23	to	.38
.03	.39	to	.56
.04	.57	to	.72
.05	.73	to	.88
.06	.89	to	1.10
.07	1.11 ← M1	to	1.22
.08	1.23	to	1.38
.09	1.39	to	1.56
.10	1.57	to	1.72
.11	1.73	to	1.88
.12	1.89	to	2.10
.13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

To program a tax table, first make a table like the right table shown above.
From the tax table, calculate the differences between a minimum break point and the next one (A). Then, from the differences, find irregular cycles (B) and regular cycles (C and D). These cycles will show you the following items necessary to program the tax table:

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 a 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 **First figure:** The first figure to be entered depends upon whether the difference between a minimum breakpoint to be entered and the preceding minimum breakpoint is not less than $1.00 or more than 99¢. When the difference is not less than $1.00, enter "1," and when it is not more than 99¢, enter "0" or nothing.

Second figure: The second figure depends upon whether your tax table is to be programmed as tax table 1, 2, 3 or 4. When your tax table is to be programmed as tax table 1, enter "1"; when it is to be programmed as tax table 2, enter "2"; when it is to be programmed as tax table 3, enter "3"; and when it is to be programmed as tax table 4, enter "4".

*2 If the rate is fractional (e.g. 4-3/8%), then the fractional portion (3/8) would be converted to its decimal equivalent (i.e. .375) and the resulting rate of 4.375 would be entered. Note that the nominal rate (R) is generally indicated on the tax table.

Note *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 SBTL key. Then program again from the beginning correctly.*

• Limitations to the entry of minimum breakpoints

Your register can support a tax table consisting of no more than 72 breakpoints. (The number of breakpoints is 36 maximum when the breakpoint difference is $1.00 or more.) If the number of breakpoints exceeds the register's table capacity, then the manual entry approach should be used.

Example Programming the sample tax table shown on the previous page as tax table 1

Key operation

	2710 • @/FOR
	1 @/FOR
Tax rate →	6 @/FOR
M →	100 @/FOR
T →	1 @/FOR
Q →	11 @/FOR
The first cyclic portion	23 @/FOR
	39 @/FOR
	57 @/FOR
	73 @/FOR
M1 (MAX point)→	89 @/FOR
	111 @/FOR
	CA/AT

Print

```
#2710 *PGM2*
TAX1          6.0000%
              / 1.00
            1   0.11
            2   0.23
            3   0.39
            4   0.57
            5   0.73
            6   0.89
            7   1.11
```

Note *You do not need to enter the trailing zeros of the tax rate (after the decimal point) but you do need to enter the decimal point for fractions.*

- **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.

Sample tax table
Example 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

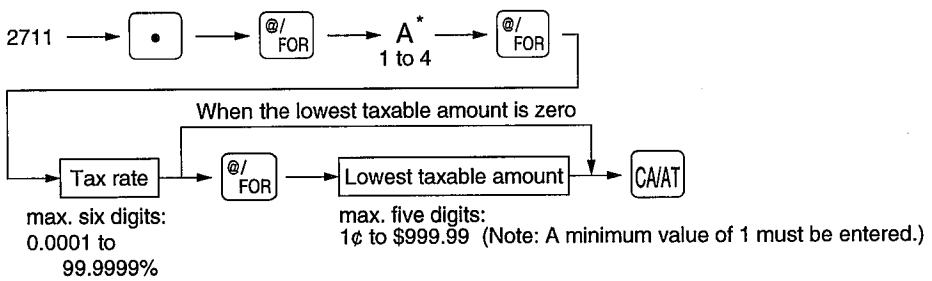
Tax	Minimum breakpoint
.00	.01
.01 ← T	.11 ← Q
.02	.26
.03	.47
.04	.68
.05	.89
.06	.89
.07	1.11 ← M1
.08	1.11
.09	1.11
.10	1.26
.11	1.47
.12	1.68
.13	1.89
.14	1.89
.15	2.11 ← M2
.16	2.11
.17	2.11

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

■ The tax rate PGM 2 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".

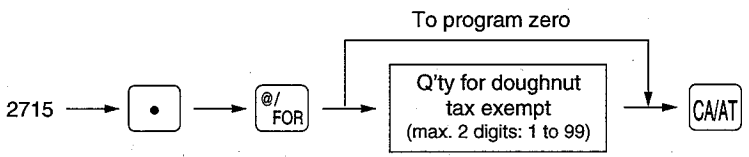
Example Programming the tax rate 4% as tax rate 2 with tax exempt as 12¢

Key operation	Print
2711 [•] [@/FOR] 2 [@/FOR] 4 [@/FOR] 12 [CA/AT]	#2711 *PGM2* TAX2 4.0000% 0.12

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 [SBTL] key. Then program again from the beginning correctly.*
- *You do not need to enter the trailing zeros of the tax rate (after the decimal point), but you do need to enter the decimal for fractions.*

■ Doughnut tax exempt (for the Canadian tax system) PGM 2 2715

Procedure



Note *This option is available only when the Canadian tax system is selected.*

Example To program the q'ty "6"

Key operation	Print
2715 [•] [@/FOR] 6 [CA/AT]	#2715 *PGM2* EXPT COUNT 6

4 Programming for departments

Your machine is equipped with 20 standard departments and up to 50 optional departments.
Your machine allows you to perform the following programming for each department:

■ Functional programming 1 PGM 2 2110

You can set each department for:

Compulsory item validation print

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

Tare table number

- Assign tare table no. to each department (for scale entries).

Scale entry

- Program a department for scale entry (compulsory/enable/inhibit) when your store needs scale entries.

SICS (Single Item Cash Sale) / SIF (Single Item Finalization)

- SICS

  If the first registration is to a department set for SICS, the sale is finalized as soon as the department key is pressed. If the sale is preceded by registrations to departments not set for SICS, a sale to a department set for SICS does not finalize and can be repeated until the CA/AT key is pressed.
- SIF

  Whenever a sale is made to a department set for SIF, the sale is finalized as soon as the department key is pressed.

Type of department

You may program each department as one of the following three types.

- Bottle Return (BR)
- Hash

  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.
- Normal

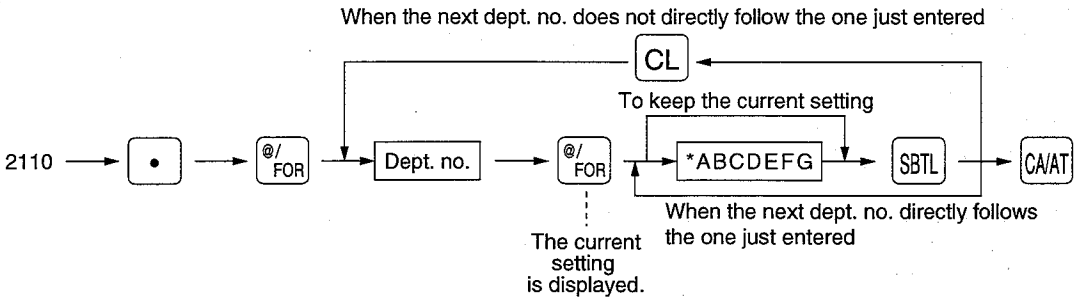
Note *If your register has not been set for "Bottle return and Hash dept." by your dealer, you cannot program the department for those operations. So contact your dealer if you need them.*

Type of unit price entry

You may select one of the following four types of unit price entry for each department.

- Open and preset
- Preset only
- Open only
- Inhibit department key

Procedure



*	Item:		To:	Enter:
	A	Always enter 0.	(Fixed position)	0
	B	Item validation print compulsory/non-compulsory	set a department for item validation print compulsory	1
			set it for item validation print non-compulsory	0
	C	Tare table number		0 - 9
	D	Scale entry	program a department for scale entry compulsory	2
			program it for scale entry allowed	1
			program it for scale entry prohibited	0
	E	SIF/SICS /Normal	set a department for SIF	2
			set it for SICS	1
			set it for neither SIF nor SICS	0
	F	Bottle Return/Hash/Normal	program a department as bottle return department	2
			program it as a hash department	1
			program it as a normal department	0
	G	Type of unit price entry	set a department for "Open and preset"	3
			set it for "Preset only"	2
			set it for "Open only"	1
			set it for "Inhibit department key"	0

Example

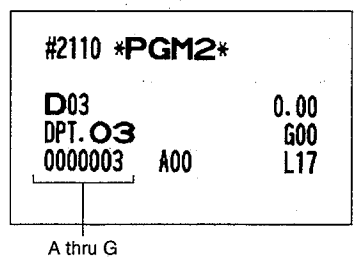
Programming for department 3

Enter A=0, B=0, C=0, D=0, E=0, F=0, and G=3 for department 3.

Key operation

2110 • @/FOR
3 @/FOR 0000003 SBTL
CA/AT

Print



■ Functional programming 2 PGM 2 2111 Direct

Sign (plus/minus)

- Assign a plus sign to those departments for which normal sale amounts are to be entered.
- Assign a minus sign to those departments for which payments for items such as bottle returns or other minus transactions are to be entered.

Food stamp status

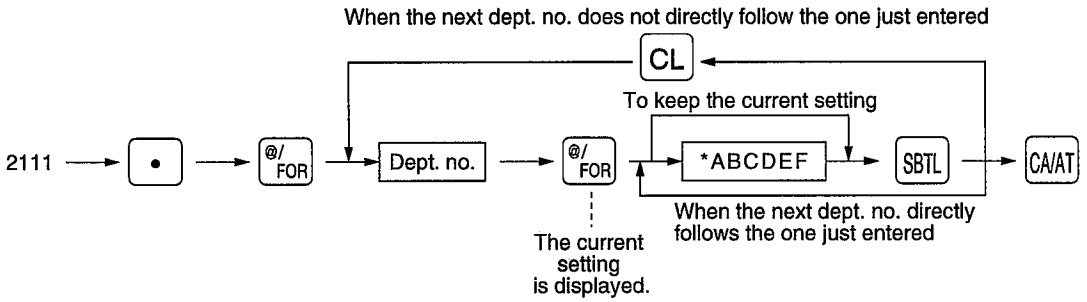
- Assign a food stamp status (food stamp eligible or food stamp ineligible) to each department.

Tax status

- Assign a tax status (taxable 1/taxable 2/taxable 3/taxable 4/non-taxable) to each department.
- When entries are made into taxable departments in a transaction, tax is automatically computed according to the associated tax table or rate as soon as the transaction is completed.

Note *Tax 4 is prohibited if you use the food stamp function.*

Procedure



* Item:		To:	Enter:
A	Sign	assign the plus sign	0
		assign the minus sign	1
B	Food stamp status	assign "food stamp ineligible"	0
		assign "food stamp eligible"	1
C	Tax 4 status	assign "non-taxable"	0
		assign "taxable 4"	1
D	Tax 3 status	assign "non-taxable"	0
		assign "taxable 3"	1
E	Tax 2 status	assign "non-taxable"	0
		assign "taxable 2"	1
F	Tax 1 status	assign "non-taxable"	0
		assign "taxable 1"	1

Example Programming for departments 4 and 10

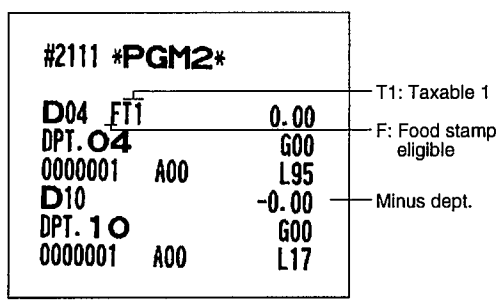
Enter A=0, B=1, C=0, D=0, E=0, F=1 for department 4.

Enter A=1, B=0, C=0, D=0, E=0, F=0 for department 10.

Key operation

2111 • @/FOR
4 @/FOR 010001 SBTL
CL 10 @/FOR 100000 SBTL
CA/AT

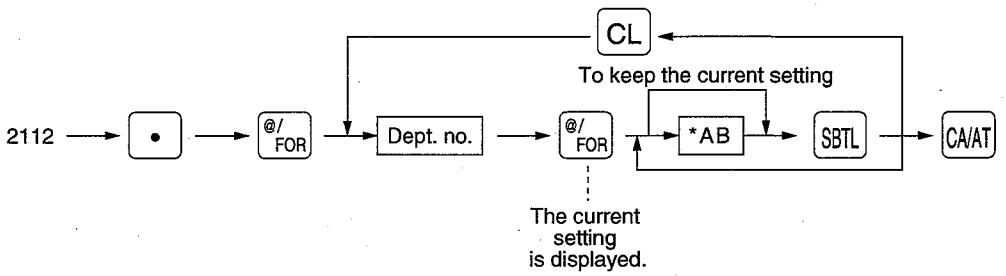
Print



■ A limit amount (HALO) of entry PGM 2 2112 Direct

You can set upper limit amounts (HALO: High Amount Lockout) for each department. The limit is effective for the REG-mode operations and can be overridden in the MGR mode. HALO limit is represented by two figures as follows:

Procedure



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

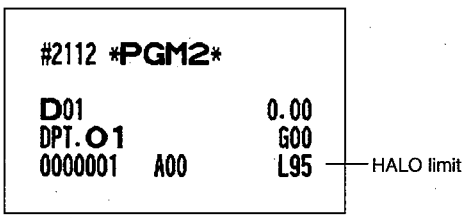
For example, presetting 14 ($100.00) here means that amount entries of up to $100.00 are allowed in the REG mode. But when you preset 17, the upper limit amount is 99999.99.

Example Programming HALO limit of 9000.00 (95) for dept. 1

Key operation

2112 • @/FOR
1 @/FOR 95 SBTL
CA/AT

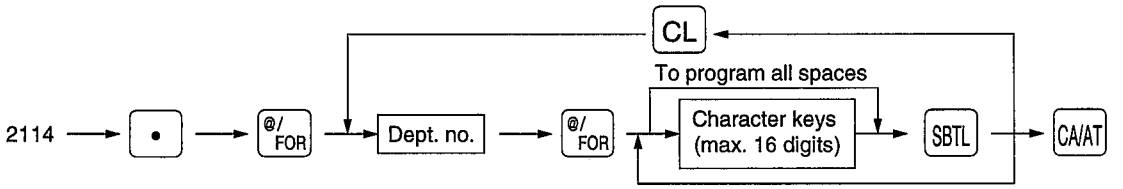
Print



■ Alphanumeric characters PGM 2 2114

You can program 12 up to a maximum of 16 characters (item label) for each department. (The default setting is 12 characters.)
Please consult your Sharp dealer for the settings that have been preset for your unit.
Select the characters you want to program, by referring to section "2 How to program alphanumeric characters" in chapter "PRIOR TO PROGRAMMING".

Procedure

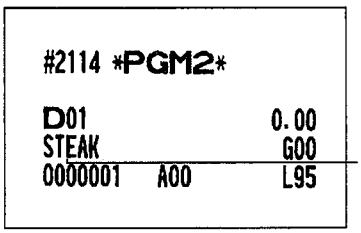


Example Programming STEAK (steak) for dept. 1

Key operation

2114 • @/FOR
1 @/FOR
STEAK SPACE SPACE SPACE SBTL
CA/AT

Print

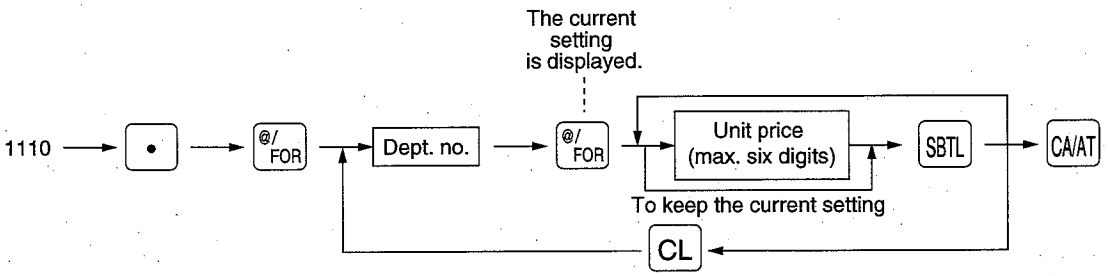


Label programmed for dept. 1

■ Unit price PGM 1 PGM 2 1110 Direct

You can program unit prices up to a maximum of six digits ($9999.99). Even if a department has not programmed and you enter a preset unit price in functional programming 1 (job 2110), the department is automatically changed to allow preset unit price by this programming entry.

Procedure

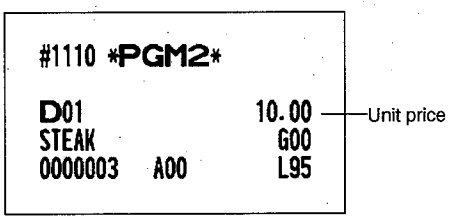


Example Programming $10.00 for dept. 1

Key operation

1110 • @/FOR
1 @/FOR 1000 SBTL
CA/AT

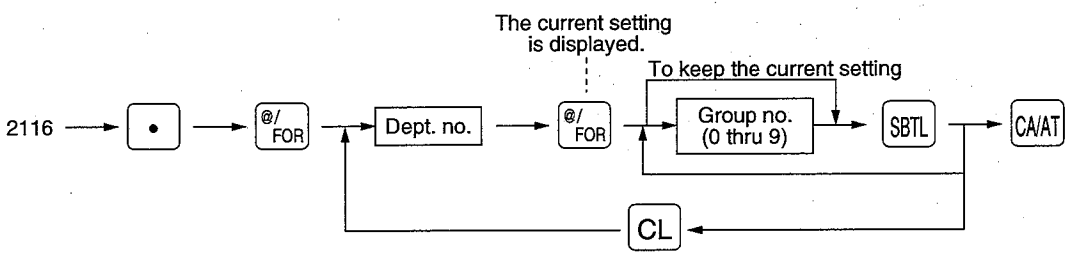
Print



■ Group number PGM 2 2116

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

Procedure



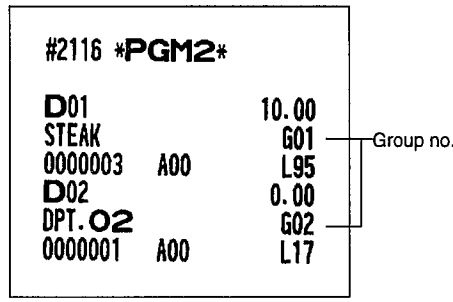
Note *To cancel the grouping, enter 0.*

Example Programming the group number 1 for dept.1 and the group number 2 for dept. 2

Key operation

2116 [•] [@/FOR]
1 [@/FOR] 1 [SBTL]
2 [SBTL]
[CA/AT]

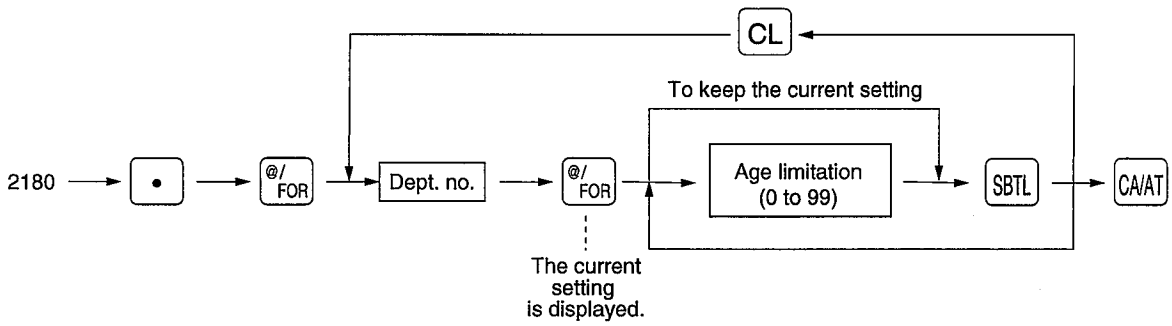
Print



■ Age limitation PGM 2 2180

If an item sold is not allowed to be sold to certain aged persons by law, program the age limitation for the corresponding department.

Procedure



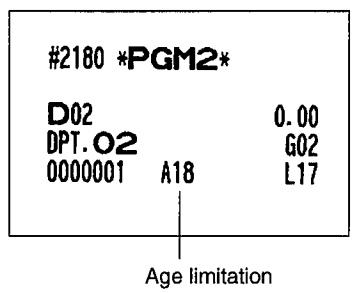
Note *When a department for which a figure other than zero (01 to 99) has been programmed as the age limitation is entered, the birthday entry must be completed.*

Example Programming the age limitation "18" for dept. 2

Key operation

2180 [•] [@/FOR]
2 [@/FOR]
18 [SBTL]
[CA/AT]

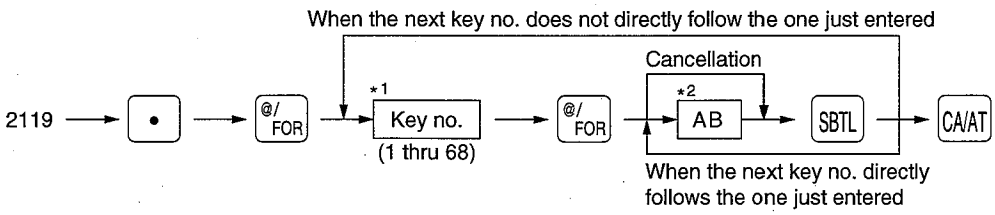
Print



■ Department key positioning PGM 2 2119

You can assign a department number to preset key positions. Each key position has a corresponding key number.
To assign the department to a key position, select a key number for the desired position and assign the department.
For key no. position, refer to section "2 Standard key number layout" in chapter "KEYBOARD".

Procedure



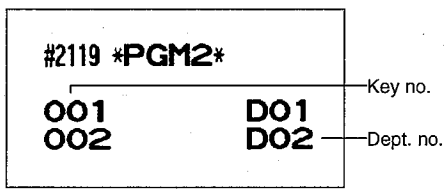
*1 The key number placement is determined by your local Authorized SHARP Dealer.
*2 AB is a department no.

Example Programming the key number 1 for dept.1 and 2 for dept. 2

Key operation

2119 • @/FOR
1 @/FOR 1 SBTL
2 SBTL
CA/AT

Print



5 Price lookup (PLU) programming

Your machine has two kinds of PLU registration methods.
Direct PLU registration: Accomplished by depressing the item key (direct PLU key) directly.
Indirect PLU registration: Accomplished by making an entry of a PLU number and pressing the [PLU/SUB] key.

Each PLU requires you to program the following:

PLU number (six digits)
Associate department
When a PLU is associated with a department, the following functions of the PLU depend on the programming for the department.
- Type (Bottle return/Hash/Normal)
- Single item cash sale/Single item finalization
- Item validation print compulsory/non-compulsory

Unit price (max. six digits)
You will usually have unit prices programmed for individual PLUs as unit prices, but when you set HALO entry limits for subdepartments, you will use these prices as upper limit amounts. If you program unit price "0.00" for a PLU, you can enter only the selling quantity into the PLU. (i.e. the PLU can be used only as a counter.)
Base quantity for split-pricing entries - two digits
Program a base quantity for each PLU/subdepartment dedicated to split-pricing entries.
Sign (+/-)
The function of every PLU/subdepartment varies according to the combination of its sign and its associate department's sign as follows:

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

Food stamp status and tax status (taxable 1, 2, 3 and/or 4, non-taxable)
Item label (12 characters) (option: max. 16 characters)
Tare table number and scale entry
Linked PLU number
Any PLU is able to link to any other PLU (e.g. bottle deposit). However, the number of links is a maximum of 5. Even if more than 5 PLUs are linked, the sixth or higher link is not actualized.
Direct PLU key positioning

PLU, subdepartment, PLU/subdepartment, delete, or prohibit mode

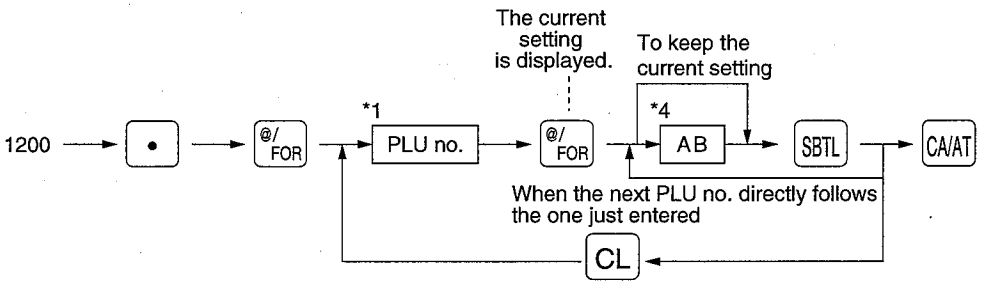
- If the PLU mode (i.e. automatic preset amount entry) is selected, individual PLU entries can be made by entering the assigned number and depressing the [PLU/SUB] key (or by depressing a direct PLU key without any number entry).
- If the subdepartment mode is selected, the entry of the assigned number and depression of the [PLU/SUB] key must then be followed by the entry of a unit price. The preset "price" assigned to a subdepartment is used as entry HALO amount.
- If the PLU/subdepartment mode is selected, the entries in both the PLU and subdepartment modes are available.
- If the delete mode is selected, data programmed for each PLU is deleted.
- If the prohibit mode is selected, the assigned PLU code cannot be entered. This mode does not clear the PLU/subdepartment program data.

Note *For some items, you can program them in two ways: programming an individual PLU number and for a range of sequential PLU numbers. The procedure marked "For each PLU" shows individual PLU programming. The procedure "For a range of PLUs" shows range PLU programming.*

■ Department assignment PGM 1 PGM 2 1200 2230 Direct

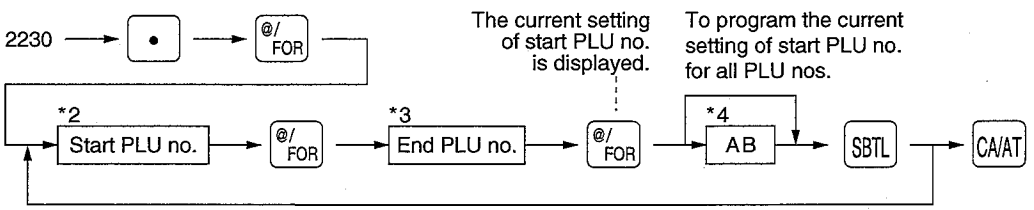
Procedure

For each PLU



Note *As soon as the programming is completed for one PLU, the next PLU number appears in the display.*

For a range of PLUs



*1, 2, 3: 1 thru 999999 (free code)
*4: AB: Associated department number

Example

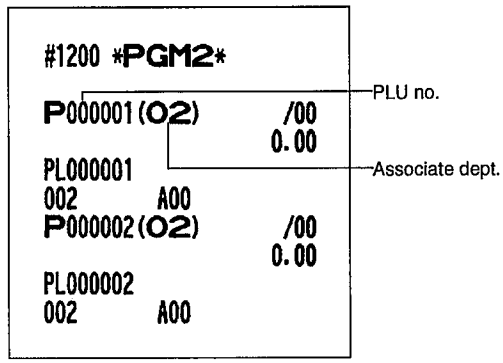
For each PLU

Programming for PLU nos. 1 and 2 for "Associate department 2"

Key operation

1200 [•] [@/FOR]
1 [@/FOR] 2 [SBTL]
2 [SBTL]
[CA/AT]

Print



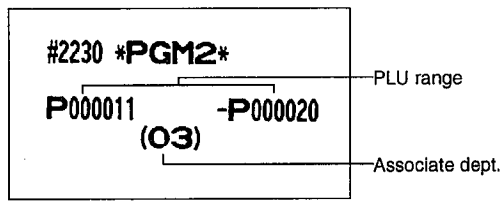
For a range of PLUs

Programming all of PLU nos. 11 thru 20 for "Associate department 3"

Key operation

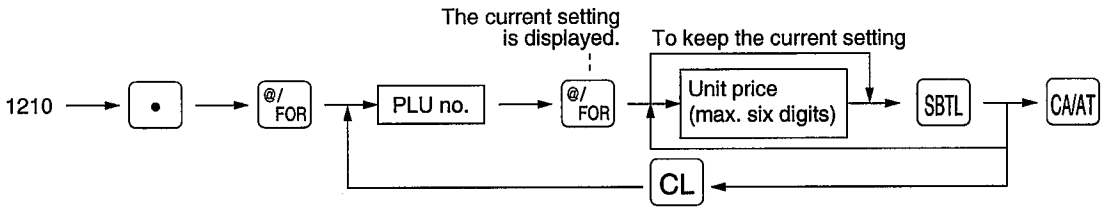
2230 [•] [@/FOR]
11 [@/FOR] 20 [@/FOR]
3 [SBTL]
[CA/AT]

Print



■ Unit prices PGM 1 PGM 2 1210 Direct

Procedure



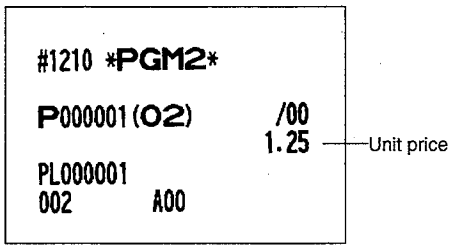
Note *The preset amount will work as the unit price for PLUs and as the HALO amount for subdepts. In the case of subdepts., zero preset prevents amount entry and 9999.99 preset means no limitation. In the case of PLUs, zero and 9999.99 presets have no special meaning. (i.e. 0 amount preset is available.)*

Example Programming "$1.25" for PLU no. 1

Key operation

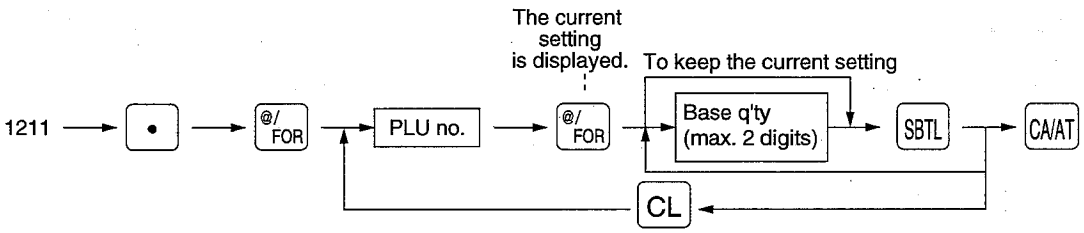
1210 [•] [@/FOR]
1 [@/FOR] 125 [SBTL]
[CA/AT]

Print



■ Base quantity PGM 1 PGM 2 1211

Procedure

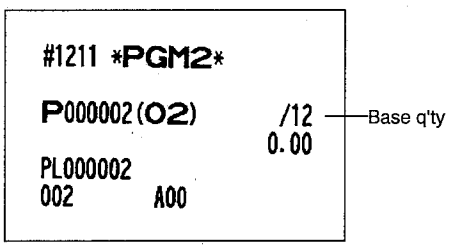


Example Programming "12" for PLU no. 2

Key operation

1211 [•] [@/FOR]
2 [@/FOR] 12 [SBTL]
[CA/AT]

Print

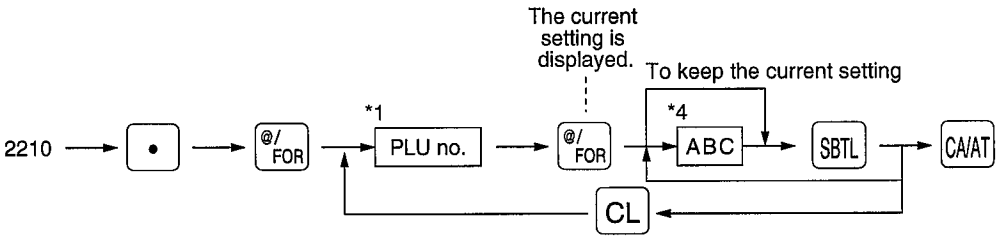


■ PLU/subdepartment mode, tare table no. and scale entry PGM 2 2210 2231

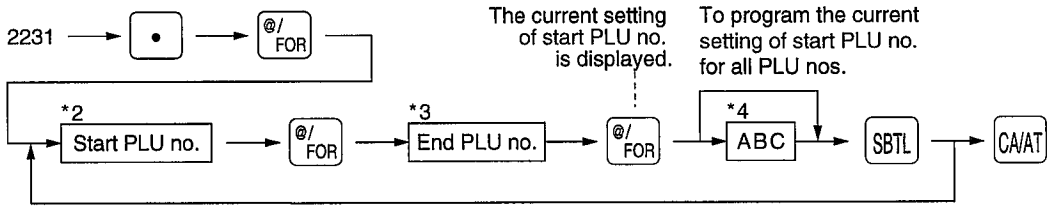
Direct

Procedure

For each PLU



For a range of PLUs



*1,2,3: 1 thru 999999

*4:	Item:		To:	Enter:
	A	Tare table no.		0 - 9
	B	Scale entry	program "scale inhibited"	0
			program "scale allowed"	1
			program "scale compulsory"	2
	C	Mode parameter	inhibit PLU/subdept.	0
			select the subdept. mode	1
			select the PLU mode	2
			select the PLU/subdept. mode	3
			select the delete mode	4

Example

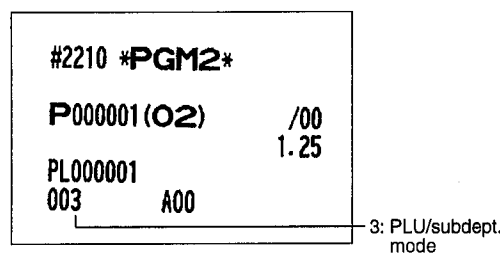
For each PLU

To program A=0, B=0, C=3 for PLU no. 1

Key operation

2210 • @/FOR
1 @/FOR 003 SBTL
CA/AT

Print



For a range of PLUs

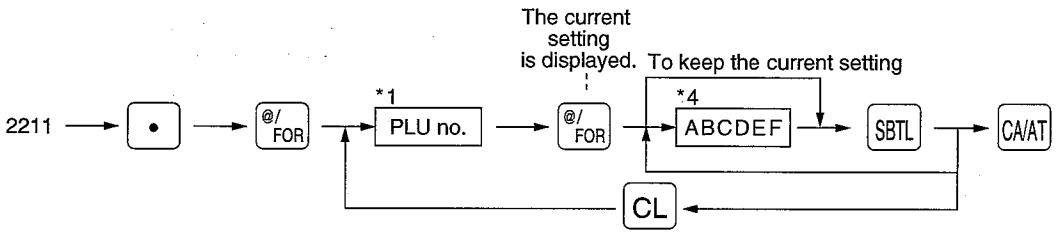
Programming PLU numbers 11 thru 20 for "PLU/subdept. mode"

Key operation	Print
2231 [•] [@/FOR] 11 [@/FOR] 20 [@/FOR] 003 [SBTL] [CA/AT]	#2231 *PGM2* P000011 -P000020 003 PLU range 3: PLU/subdept. mode

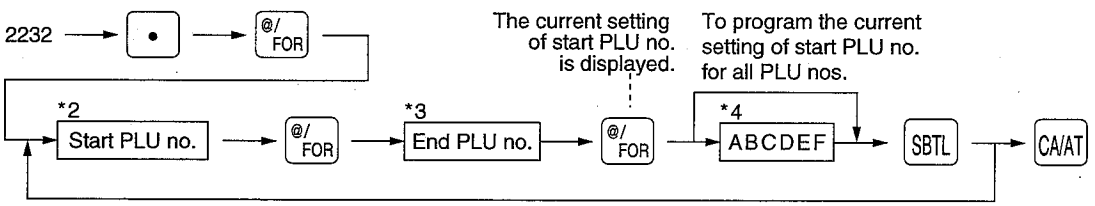
■ Sign (+/-), food stamp status, and tax status PGM 2 2211 2232 Direct

Procedure

For each PLU



For a range of PLUs



*1,2,3: 1 thru 999999

*4:	Item:		To:	Enter:
	A	Sign (+/-)	set as a plus PLU	0
			set as a minus PLU	1
	B	Food stamp status	assign "food stamp ineligible"	0
			assign "food stamp eligible"	1
	C	Tax 4 status	assign "non-taxable"	0
			assign "taxable 4"	1
	D	Tax 3 status	assign "non-taxable"	0
			assign "taxable 3"	1
	E	Tax 2 status	assign "non-taxable"	0
			assign "taxable 2"	1
	F	Tax 1 status	assign "non-taxable"	0
			assign "taxable 1"	1

Note

- *Tax 4 is prohibited if you use the food stamp function.*
- *A PLU not programmed for Tax 1 through Tax 4 statuses is registered depending on the tax status of the department which the PLU belongs to.*

Example

For each PLU

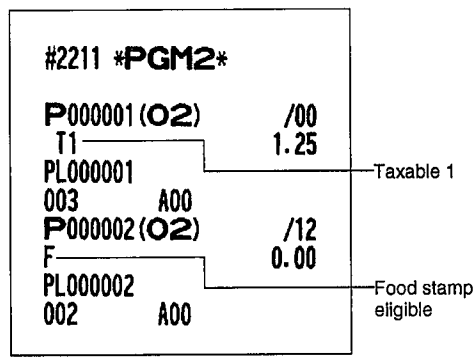
Programming:

- "plus PLU", "food stamp ineligible" and "taxable 1" for PLU no.1
- "plus PLU", "food stamp eligible" and "non-taxable" for PLU no.2

Key operation

2211 [•] [@/FOR]
1 [@/FOR] 000001 [SBTL]
010000 [SBTL]
[CA/AT]

Print



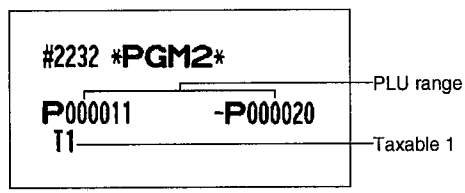
For a range of PLUs

Programming PLU numbers 11 thru 20 for "+ (plus)", "Food stamp ineligible", and "Taxable 1"

Key operation

2232 [•] [@/FOR]
11 [@/FOR] 20 [@/FOR]
000001 [SBTL]
[CA/AT]

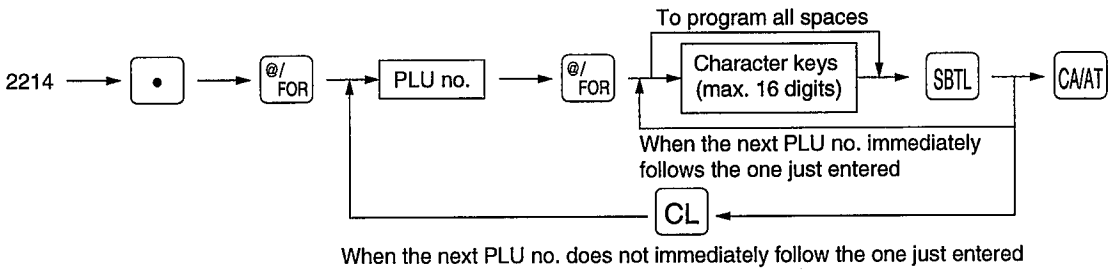
Print



■ Alphanumeric characters PGM 2 2214

You can program 12 up to a maximum of 16 characters (item label) for each PLU or subdepartment. (The default setting is 12 characters.) Please consult your Sharp dealer for the settings that have been preset for your unit. Select the characters you want to program, by referring to section "2 How to program alphanumeric characters" in chapter "PRIOR TO PROGRAMMING".

Procedure

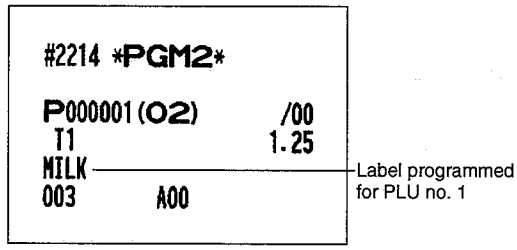


Example Programming MILK(milk) for PLU no.1

Key operation

2214 [•] [@/FOR]
1 [@/FOR]
MILK [SPACE] [SPACE] [SPACE] [SPACE] [SBTL]
[CA/AT]

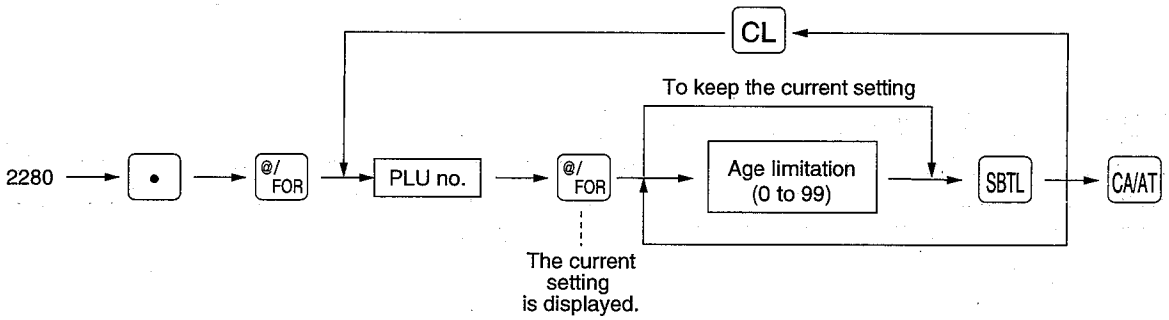
Print



■ Age limitation PGM 2 2280

If an item sold is not allowed to be sold to certain aged persons by law, program the age limitation for the corresponding PLU.

Procedure



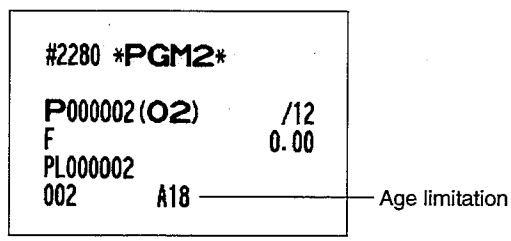
Note *When a PLU for which a figure other than zero (01 to 99) has been programmed as the age limitation is entered, the birthday entry must be completed.*

Example Programming the age limitation "18" for PLU no. 2

Key operation

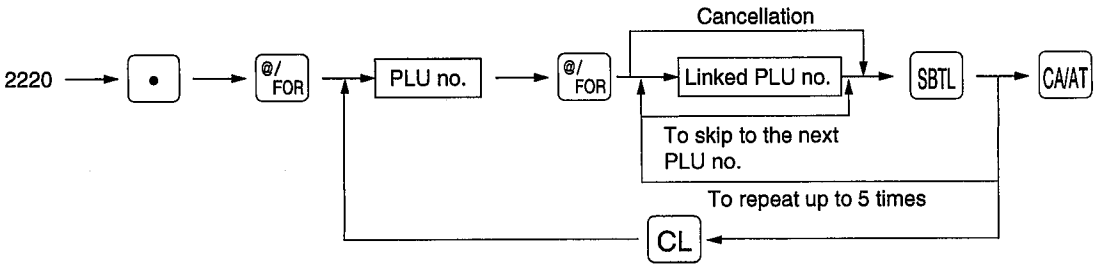
2280 [•] [@/FOR]
2 [@/FOR]
18 [SBTL]
[CA/AT]

Print



■ Linked PLU numbers PGM 2 2220

Procedure

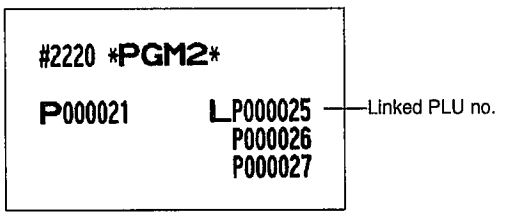


Example Programming so that PLU nos. 25, 26 and 27 are linked to PLU no. 21

Key operation

2220 • @/FOR
21 @/FOR 25 SBTL
26 SBTL
27 SBTL
CA/AT

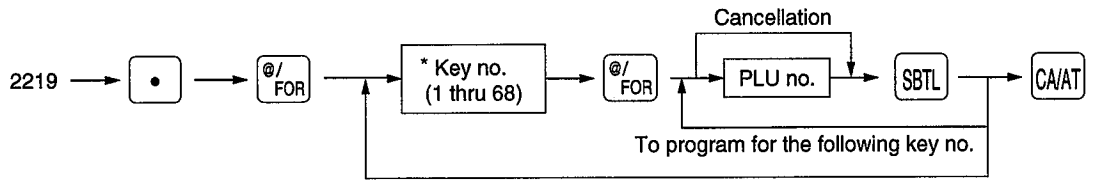
Print



■ Direct PLU key positioning PGM 2 2219

You can assign a PLU number to preset key positions. Each key position has a corresponding key number. To assign the PLU to a key position, select a key number for the desired position and assign the PLU. For key no. positions, refer to section "2 Standard key number layout" in the chapter "KEYBOARD".

Procedure



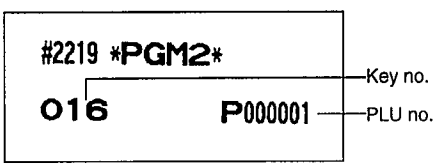
* The key number placement is determined by your local Authorized SHARP Dealer.

Example Programming so that PLU no.1 is assigned to key no.16

Key operation

2219 • @/FOR
16 @/FOR
1 SBTL
CA/AT

Print



6 Universal Product Code (UPC) or European Article Number (EAN) programming

■ UPC or EAN code

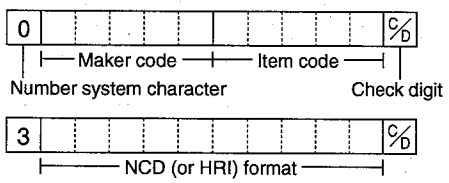
Your machine can support the following codes:

- UPC-A (Number system character: 0, 2, 3, 4)
- UPC-E
- EAN-8
- EAN-13
- Internal code EAN-8/EAN-13

For the codes used in-store marking, there are two types of PLU type (treated as a code like PLU no.) and Non-PLU type (price/quantity information is included in the code).
When a code is non-PLU type, the price/quantity in the code is read for sales entry (in case of quantity, "quantity multiplys preset unit price" is processed to obtain price.)

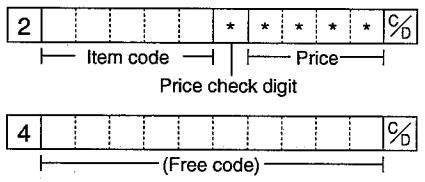
UPC-A

- Number system character: 0 <used in the source marking>
- Number system character: 3 <used as NDC or HRI>



For entry, a full 12 digit number or 11 digit number (omitting the check digits) must be entered.

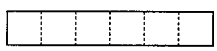
- Number system character: 2 <In-store marking Non-PLU type>
  You can program the format by the job #2025.
- Number system character: 4 <In-store marking PLU type>



For entry, a full 12 digit number, 11 digit number (omitting the check digit), or a leading zero plus 12 digit number must be entered.(Any numbers are allowed for the digits marked with *, and on the receipt/journal, non-PLU type code is printed like 2020008**** (****: price information).)

UPC-E

- UPC-E is a zero-suppressed version of UPC-A that conforms to the UPC-E Standards. This code is used for marking small packages.

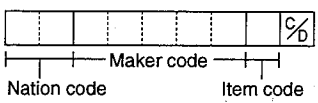


For entry, a 6 digit number or a leading zero plus 6 digits number must be entered.

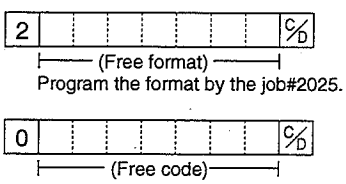
EAN 8

- Ordinary EAN-8 code (flag: neither 0 nor 2) <used in the source marking>

For entry, a full 8 digit number must be entered.



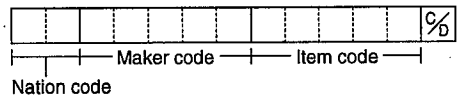
- Internal code (flag 2) <in-store marking non-PLU short type>
  Program the format by the job #2025.
- Internal code (flag 0) <in-store marking PLU short type>



For entry, a full 8 digit number must be entered. On the receipt/journal, non-PLU type code is printed like 208**** (****: price/quantity information)

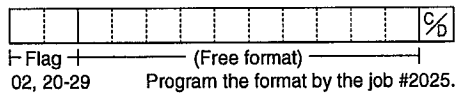
EAN-13

- Ordinary EAN-13 code (used in the source marking)
- Specific EAN-13 code (flag 977, 978, 979) (used in the source marking: ISBM, ISSN)



For entry, you must enter a full of 13 digits number.

- Internal code (used in the in-store marking, the flag character number: 20 through 29 and 02)
  Program the format by the job# 2025.



■ Add-on code

UPC-A and EAN-13 may be followed by a two digits number or a five digits number as add-on code, excepting UPC-A without a check digit plus two or five digits add-on code.
Therefore, the total number of digits enterable for sales entries are as shown below:

Code entry	No add-on code	2-digit add-on code	5-digit add-on code
UPC-A	12	14	17
UPC-A w/leading zero	13	15	18
UPC-A w/o check digit	11	–	–
UPC-E	6	–	–
EAN-8	8	–	–
EAN-13	13	15	18

Note *Your register automatically judges the add-on code in an UPC/EAN code entered from the total number of digits and the flag.*

■ UPC/EAN programming

Each UPC or EAN (hereinafter referred to as UPC) requires you to program the following.

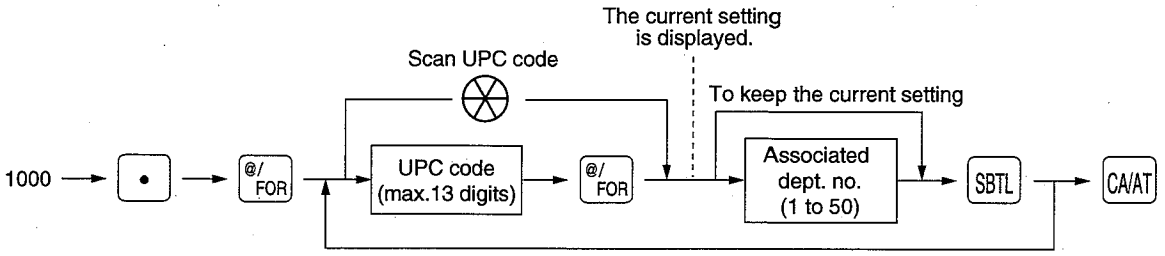
- **UPC code (max. 13 digits)**
- **Associated department (1-50)**
  When an UPC is associated with a department, the following functions of the UPC depend on the programming for the department.
  - Type (Bottle return/Hash/Normal)
  - HALO (only for the subdepartment)
  - Single item cash sale/Single item finalization

UPC code delete method
You can program how you delete UPC codes; deleting in the programming, inhibit deleting, or deleting the UPC codes that have not been accessed for a certain period, which can be programmed (up to 99 days) when you execute #105 in Z1 mode.
Unit price (max. six digits)
Base quantity for split-pricing entries
Sign (+/–)
Tax status
If you do not program tax status for a UPC, the tax status of the UPC follows to the status of the associated department.
Item label (12 characters) (option max. 16 characters)
Tare table no. and scale entry
UPC link

System programming for UPC functions
Delete period for non-accessed UPC codes
Non-PLU code format

■ Department assignment PGM 1 PGM 2 1000 Direct

Procedure

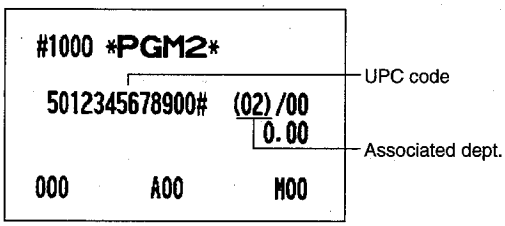


Example

Key operation

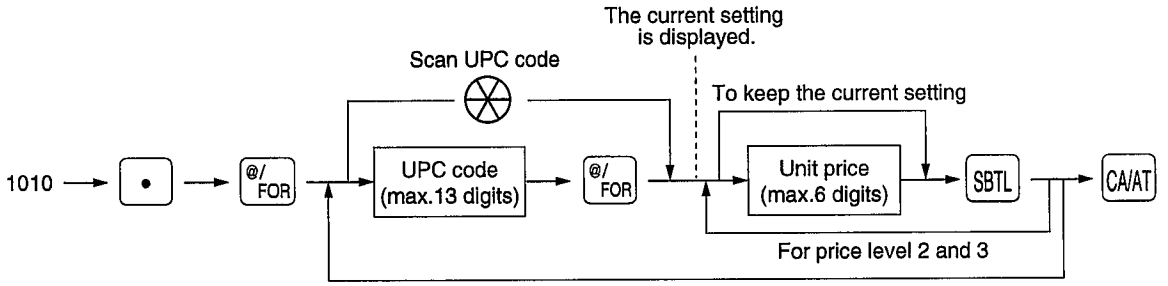
1000 • @/FOR
5012345678900 @/FOR
2 SBTL
CA/AT

Print



■ Unit prices PGM 1 PGM 2 1010 Direct

Procedure

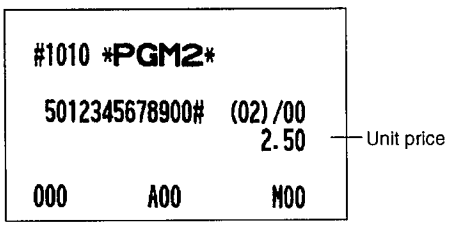


Example

Key operation

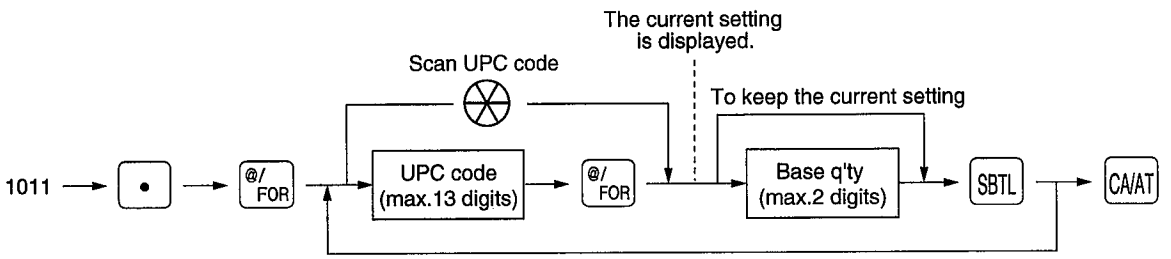
1010 • @/FOR
5012345678900 @/FOR
250 SBTL
CA/AT

Print



■ Base quantity PGM 1 PGM 2 1011

Procedure

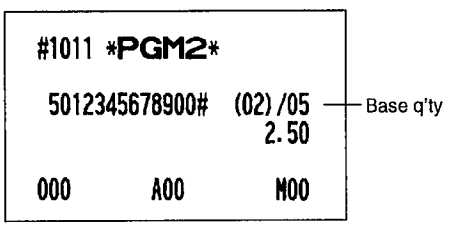


Example

Key operation

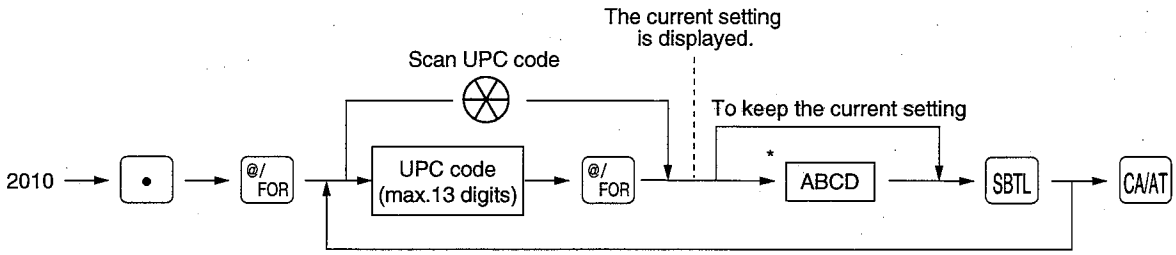
1011 • @/FOR
5012345678900 @/FOR
5 SBTL
CA/AT

Print



■ Price shift entry, tare table no., scale entry and delete method PGM 2 2010

Procedure



* Item:		To:	Enter:
A	Price shift entry	Compulsory	2
		Inhibit	1
		Allowed	0
B	Tare table no.		0 - 9
C	Scale entry	Compulsory	2
		Allowed	1
		Inhibit	0
D	Delete method (To erase from the UPC file)	Delete now	4
		Inbibit to delete in non-accessed UPC deleting job (#105 in Z1 mode)	1
		Delete in non-accessed UPC deleting job (#105 in Z1 mode)	0

With the execution of the UPC deleting job, you can delete UPCs that have not been accessed during the period that is programmed in the job #2029.

Example

Key operation

2010 • @/FOR
5012345678900 @/FOR
0001 SBTL
CA/AT

Print

```
#2010 *PGM2*
5012345678900#  (02)/05
*                  2.50
000      A00       M00
```

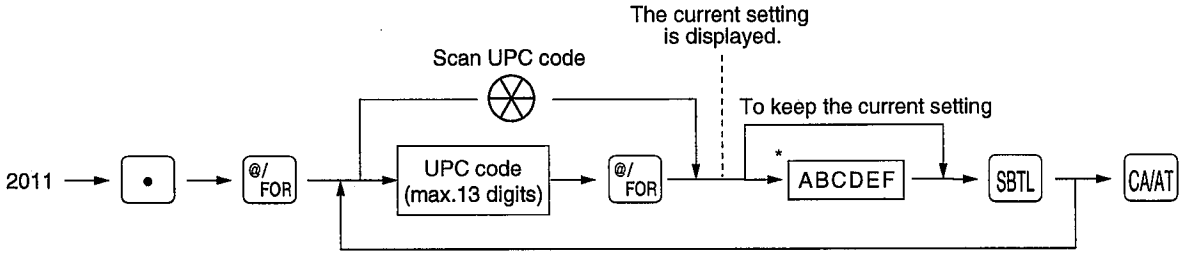
Delete method
(Inhibit to delete by job#105 in Z1 mode)
In case of "delete", no mark is printed.

When "delete now" is selected:

```
#2010 *PGM2*
5012345678900#  ----
```

■ Sign (+/-), food stamp status, and tax status PGM 2 2011 Direct

Procedure



*:	Item:		Selection:	Entry:
	A	Sign (+/-)	Minus PLU	1
			Plus PLU	0
	B	Food stamp status	Eligible	1
			Ineligible	0
	C	Tax 4 status	Taxable 4	1
			Non-taxable	0
	D	Tax 3 status	Taxable 3	1
			Non-taxable	0
	E	Tax 2 status	Taxable 2	1
			Non-taxable	0
	F	Tax 1 status	Taxable 1	1
			Non-taxable	0

Note

Sign (plus/minus)

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

Sign		*Function of UPC*
Department	*UPC*	
+	+	*Serves as a normal plus UPC*
–	–	*Serves as a normal minus UPC*
+	–	*Accepts vendor coupon entries, but not split-pricing entries*
–	+	*Not valid; not accepted*

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

- *Tax 4 is prohibited if you use the food stamp function.*
- *A UPC not programmed for any of Tax 1 thru Tax 4 is registered depending on the tax status of the department which the UPC belongs to.*

Example

Key operation

2011 • @/FOR
5012345678900 @/FOR
000001 SBTL
CA/AT

Print

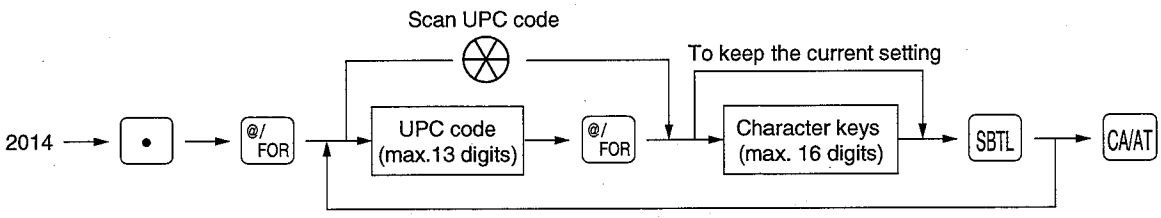
```
#2011 *PGM2*
5012345678900#  (02)/05
* T1              2.50
000      A00      M00
```

Taxable 1

■ Alphanumeric characters PGM 2 2014

You can program 12 up to a maximum of 16 characters (item label) for each UPC. (The default setting is 12 characters.) Please consult your Sharp dealer for the settings that have been preset for your unit. Select the characters you want to program, by referring to section "2 How to program alphanumeric characters" in chapter "PRIOR TO PROGRAMMING".

Procedure

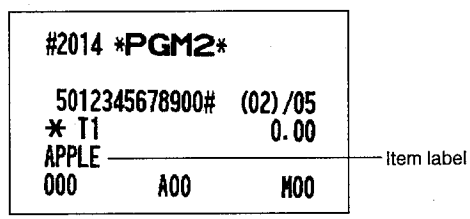


Example

Key operation

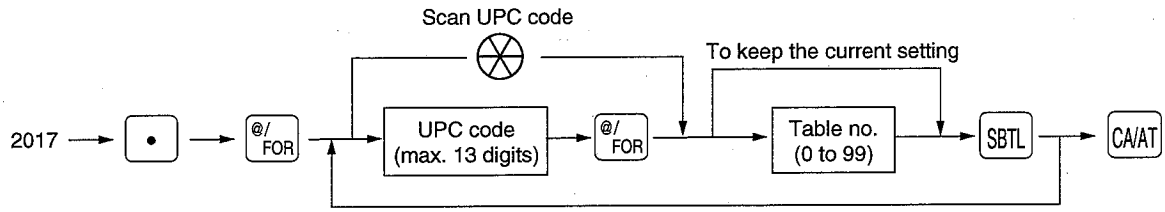
2014 • @/FOR
5012345678900 @/FOR
APPLE SBTL
CA/AT

Print



■ Mix-and-match table no. PGM 2 2017

Procedure

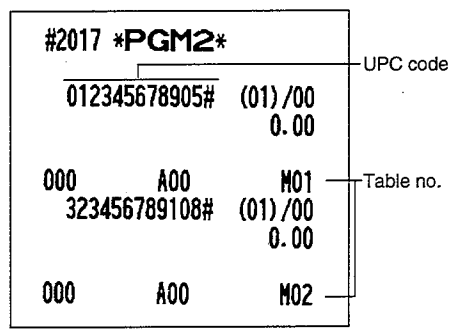


Example

Key operation

2017 • @/FOR
01234567890 @/FOR 1 SBTL
32345678910 @/FOR 2 SBTL
CA/AT

Print



■ Programming for the mix-and-match table PGM 2 2020

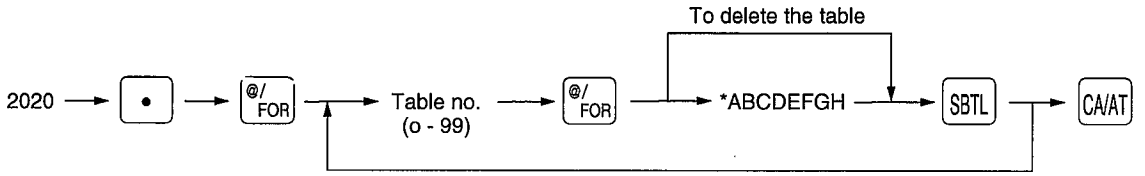
This function is effective for matching several kinds of items and selling them in a combinations (e.g. bundle sale, multi-packed sale, etc.).
The mix-and-match table consists of the adjust amount and the matching q'ty for discount (satisfying count of entered items).
If the transaction that the mix-and-match item is registered is entered, the sales amount may be discounted as follows.

[Ex.] Mix-and-match items of table no. 1: Item-A (✱2.30), Item-B (✱3.10), Item-C (✱2.50)
Matching q'ty for discount: 3
Adjust amount: ✱1.00

<Sale 1>		<Sale 2>		<Sale 3>	
Item-A	✱2.30	Item-C	✱2.50	Item-A	✱2.30
Item-A	✱2.30	Item-C	✱2.50	Item-B	✱3.10
Item-B	✱3.10	Item-C	✱2.50	Item-C	✱2.50
Subtotal	✱7.70	Subtotal	✱7.50	Subtotal	✱7.90
Discount	–6.70	Discount	–6.50	Discount	–6.90
Total	✱1.00	Total	✱1.00	Total	✱1.00

• Definition of mix-and-match table

Procedure



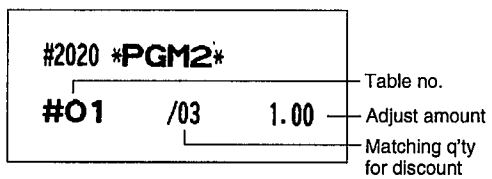
* AB: Matching q'ty for discount (1 – 99)
CDEFGH: Adjust amount (max. 6 digits)

Example To program adjust amount (✱1.00) and matching q'ty (3) to mix-and-match table no. 1

Key operation

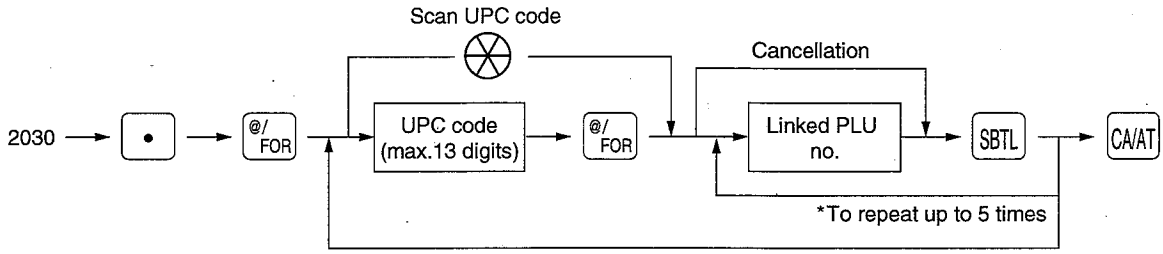
2020 • @/FOR
1 @/FOR 3000100 SBTL
CA/AT

Print



■ UPC link PGM 2 2030

Procedure



* The programmed number of linked PLUs is shown on the display like "P 1". (Incremented one every time you program a linked PLU.)

Note *UPC code and PLU no. must have been already defined.*

Example

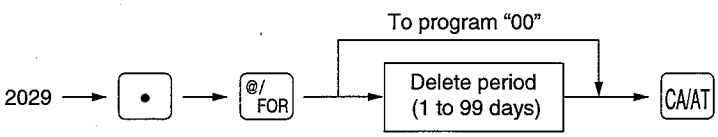
Key operation	Print
2030 • @/FOR	#2030 *PGM2*
5012345678900 @/FOR	5012345678900#L P000030
30 SBTL	P000031
31 SBTL	P000032
32 SBTL	
CA/AT	

Linked PLU

■ Delete period for non-accessed UPC codes PGM 2 2029

You can delete the UPC codes which have not been accessed during the period you set in this program when you execute the job #105 in Z1 mode when you set "Delete in non-accessed UPC deleting job" in the UPC delete method (#2010).

Procedure



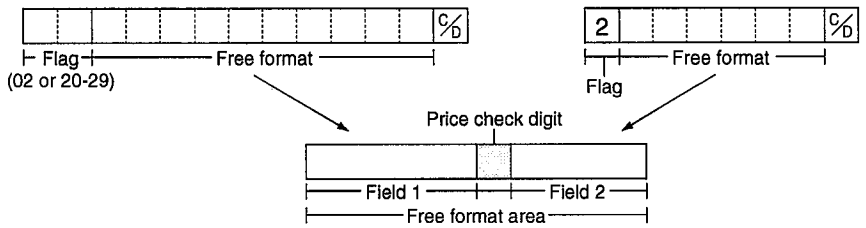
* When you select "00" for the period, no UPC code is deleted by the non-accessed UPC deleting job.

Example

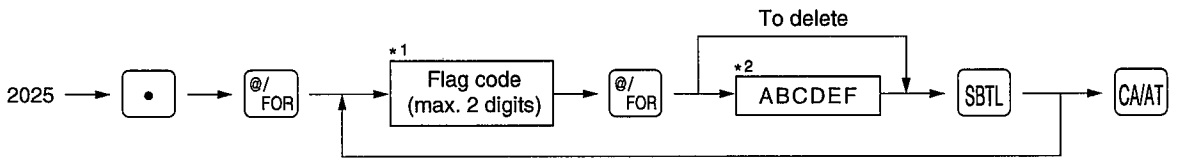
Key operation	Print
2029 • @/FOR	#2029 *PGM2*
60 CA/AT	#2029 60

■ Programming Non-PLU code format PGM 2 2025

The register allows you to specify the Non-PLU code format (flag code: 2, 02, 20 -29).
The format data is as follows:



Procedure



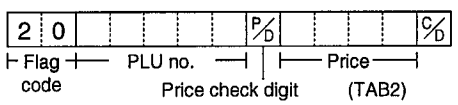
*1 Flag code: 2, 02, 20 - 29

*2

Item:		Selection:	Entry:
A	Length of field 1 (number of digits)		0 - 9
B	Length of field 2 (number of digits)		0 - 9
C	Always enter 0.	(Fixed position)	0
D	Meaning of field 2*3	Quantity	2
		Price	0
E	Price check digit used	Yes	1
		No	0
F	TAB or decimal point of field 2 (0, 1, 2, 3)		0 - 3

*3: When you preset a quantity, the sales amount is calculated as follows: quantity x unit price programmed in #1010.

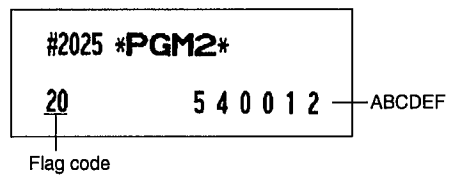
Example



Key operation

2025 • @/FOR
20 @/FOR
540012 SBTL
CA/AT

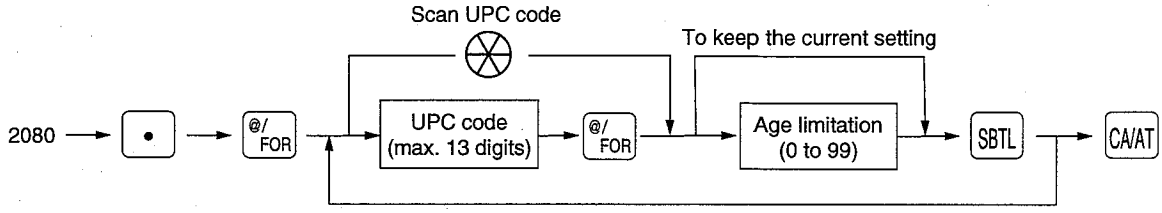
Print



■ Age limitation PGM 2 2080

If an item sold is not allowed to be sold to certain aged persons by law, program the age limitation for the corresponding UPC.

Procedure



Note *When a UPC for which a figure other than zero (01 to 99) has been programmed as the age limitation is entered, the birthday entry must be completed.*

Example Programming the age limitation "18" for UPC code 32345678910

Key operation	Print
2080 • @/FOR 32345678910 @/FOR 18 SBTL CA/AT	#2080 *PGM2* 323456789108# (01)/00 0.00 000 A18 M02

Age limitation

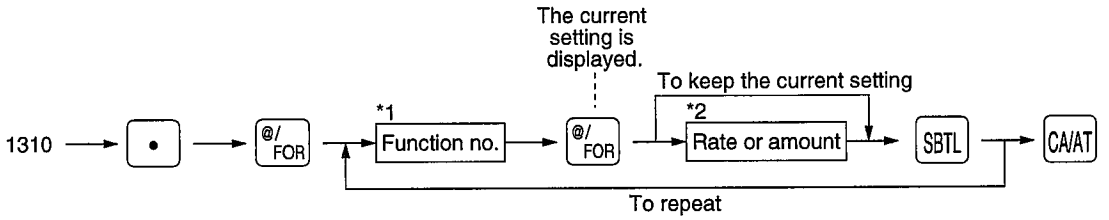
7 Programming for miscellaneous keys

Only function keys which you have programmed on the keyboard will be allowed the rate, HALO and tax status programming.

■ Programming the rate ([%], [CONV]) and the discount ([⊖]) PGM 1 PGM 2 1310 Direct

You can program percent rates, currency conversion rates, and discount amount.

Procedure



*1: Function no.

1: For the [⊖1] key	7: For the [%3] key
2: For the [⊖2] key	8: For the [%4] key
3: For the [⊖3] key	71: For the [CONV1] key
4: For the [⊖4] key	72: For the [CONV2] key
5: For the [%1] key	73: For the [CONV3] key
6: For the [%2] key	

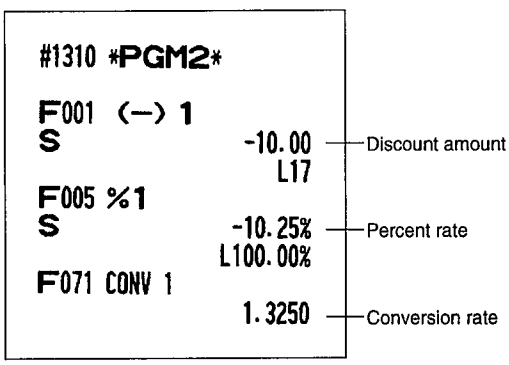
*2: Rate or amount
0 — 999999 (Discount amount)
0.00 — 100.00 (% rate)
0.0000 — 9999.9999 (Currency conversion rate)

Example Assigning $10.00 to the [⊖1] key, 10.25% to the [%1] key, and 1.325 to the [CONV1] key.

Key operation

1310 • @/FOR
1 @/FOR 1000 SBTL
5 @/FOR 10 • 25 SBTL
71 @/FOR 1 • 325 SBTL
CA/AT

Print

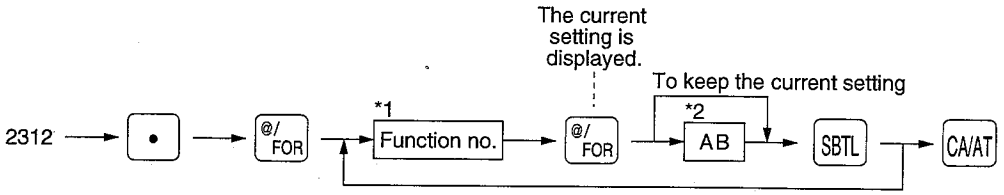


Note *You must use a decimal point when setting percentage rates that are fractional.*

■ A limit amount (HALO) of entry (⊖, TAX, RA, PO) PGM 2 2312 Direct

The HALO limit is in effect for the REG-mode operations but can be overridden in the MGR mode. The HALO limit is represented by two figures as follows:

Procedure



*1: Function no.

1: For the ⊖1 key	64: For the RA key
2: For the ⊖2 key	65: For the RA2 key
3: For the ⊖3 key	66: For the PO key
4: For the ⊖4 key	67: For the PO2 key
32: For the TAX key	

*2: AB is the same as A x 10^B.
A: Significant digit (0 through 9)
B: Number of zeros to follow significant digit
0 through 7 (for the ⊖1 thru ⊖4, and TAX keys)
0 through 8 (for the RA, RA2, PO, and PO2 keys)

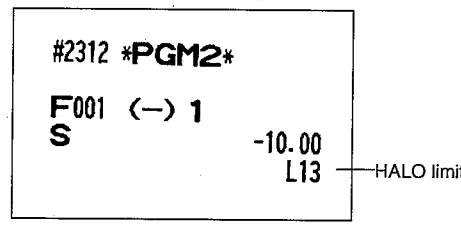
For example, presetting 13 ($10.00) here means that amount entries of up to $10.00 are allowed in the REG mode.
You can set up AB = 17 for no limitation (for the ⊖1 thru ⊖4, and TAX keys).
You can set up AB = 18 for no limitation (for the RA, RA2, PO, and PO2 keys).

Example Programming 13 for the ⊖1 key.

Key operation

2312 • @/FOR
1 @/FOR 13 SBTL
CA/AT

Print

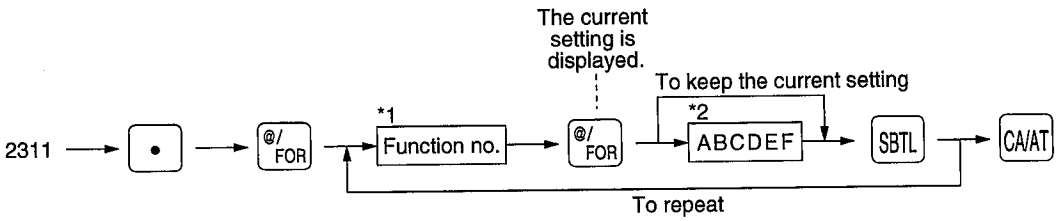


■ +/- sign, food stamp status, and tax status (%, ⊖) PGM 2 2311 Direct

+/- sign: Programming of the +/- sign assigns the premium or discount function for each key.
Food stamp status: Programming of the food stamp status decides whether a premium or discount should be dealt with as a food stamp-eligible amount or not.
Tax status: Programming of the tax status decides whether a premium or discount should be dealt with as a taxable (taxable 1/2/3/4) or non-taxable amount.

Note *Tax 4 is prohibited if you use the food stamp function.*

Procedure



*1: Function no.
- 1: For the ⊖1 key
- 2: For the ⊖2 key
- 3: For the ⊖3 key
- 4: For the ⊖4 key
- 5: For the %1 key
- 6: For the %2 key
- 7: For the %3 key
- 8: For the %4 key

*2: As follows:

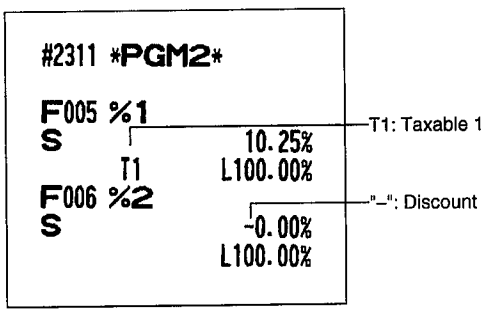
Item:		To:	Enter:
A	+/- sign	select the + (premium) sign	0
		select the -(discount) sign	1
B	Food stamp status	assign "food stamp ineligible"	0
		assign "food stamp eligible"	1
C	Tax 4 status	assign "non-taxable"	0
		assign "taxable 4"	1
D	Tax 3 status	assign "non-taxable"	0
		assign "taxable 3"	1
E	Tax 2 status	assign "non-taxable"	0
		assign "taxable 2"	1
F	Tax 1 status	assign "non-taxable"	0
		assign "taxable 1"	1

Example Assigning the "+" sign, "food stamp ineligible", and "taxable 1" to the %1 key and the "–" sign, "food stamp ineligible," and "non-taxable" to the %2 key.

Key operation

2311 • @/FOR
5 @/FOR 000001 SBTL
6 @/FOR 100000 SBTL
CA/AT

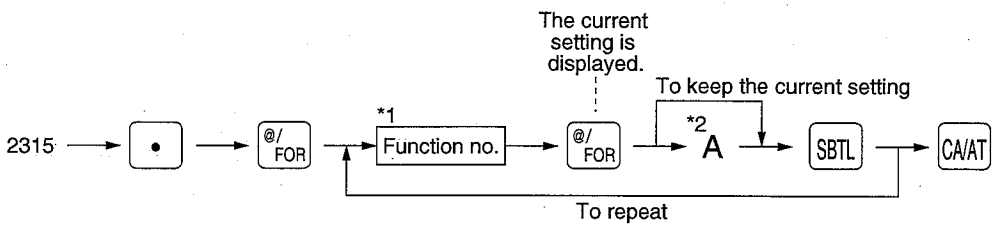
Print



■ % item or % subtotal selection (%) PGM 2 2315

% item
Select this when a percent calculation is desired for the individual department and PLU.
% subtotal
Select this when a percent calculation is desired for merchandise subtotals.

Procedure



*1: Function no.
5: For the %1 key
6: For the %2 key
7: For the %3 key
8: For the %4 key

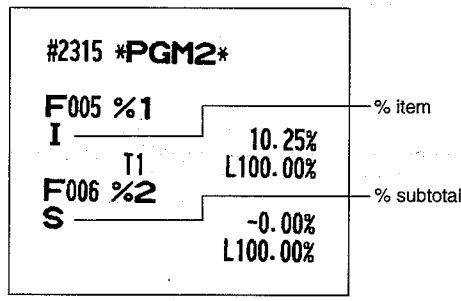
*2: A
0: % subtotal
1: % item

Example To select "% item" for %1 key and "% subtotal" for %2 key

Key operation

2315 • @/FOR
5 @/FOR 1 SBTL
6 @/FOR 0 SBTL
CA/AT

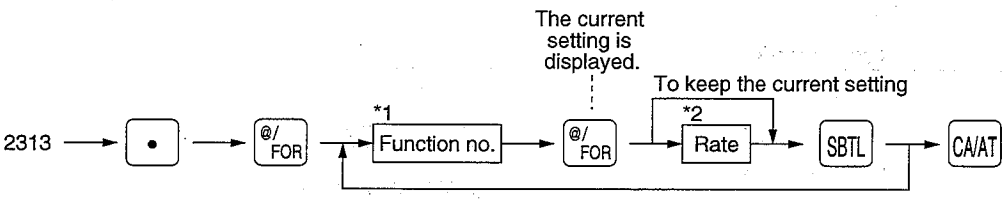
Print



■ Percent rate limitation (%) PGM 2 2313

You can program the upper limit of percent rates for percent entries.
(Percent entries that use the upper limit may be overridden in the MGR mode.)

Procedure



*1: Function no.
5: For the %1 key
6: For the %2 key
7: For the %3 key
8: For the %4 key

*2: Rate
0.00 – 100.00 (Entering 0.00 inhibits the open percent rate entry.)

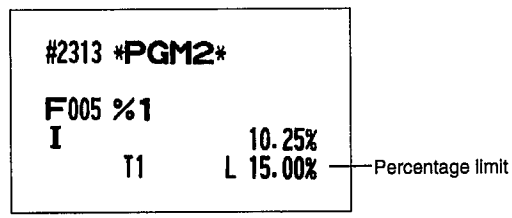
Note *10.00% can be entered as* [1] [0] *or* [1] [0] [•] [0] [0]. *The* [•] *key is needed only for fractional entry.*

Example Setting the limit to 15.00% for the [%1] key

Key operation

2313 [•] [@/FOR]
5 [@/FOR] 15 [•] 00 [SBTL]
[CA/AT]

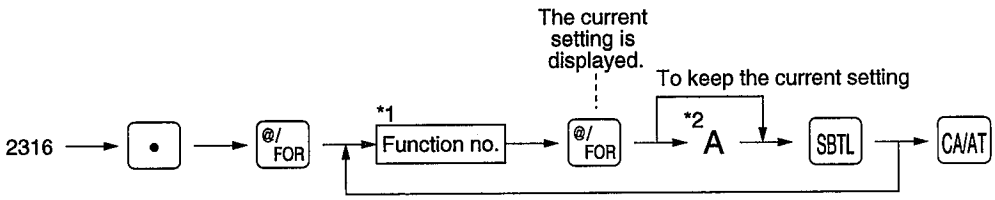
Print



■ Vendor or store coupon selection ([⊖]) PGM 2 2316

Vendor coupon
Select this when the coupon is to be applied to the total sales amount.
Store coupon
Select this when the coupon is to be applied to an individual department or PLU.

Procedure



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

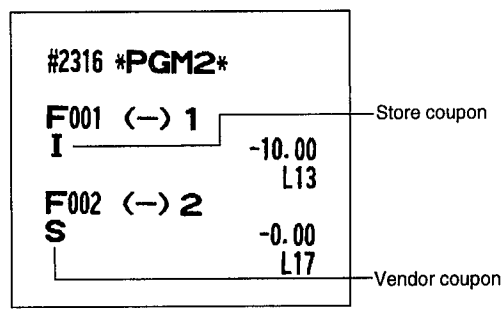
*2: A
0: Vendor coupon
1: Store coupon

Example Programming the store coupon selection for the [⊖1] key and the vendor coupon selection for the [⊖2] key.

Key operation

2316 [•] [@/FOR]
1 [@/FOR] 1 [SBTL]
2 [@/FOR] 0 [SBTL]
[CA/AT]

Print



8 Programming for the CA/AT, CA2, CHK, CHK2, and CH thru CH5 keys

■ Functional programming PGM 2 2320

You can set each media for:

Bill (slip) print compulsory/non-compulsory

Footer printing

This programming decides whether or not your machine should print a message at the foot of a receipt when a specified media key is used.

Non-add code compulsory

You can enforce the non-add code entry when a media entry is accepted.

Change enable (over-tender)

Either change enable or disable can be selected for a corresponding media key.

Compulsory validation print

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

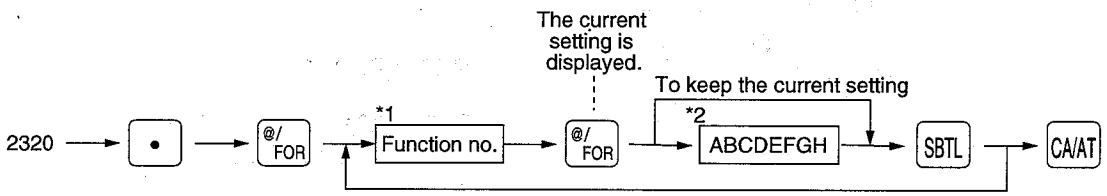
Drawer open

You can program each media key to or not to open the drawer.

Amount tendered compulsory

You may select amount tendered compulsory or optional for the CA/AT, CA2, CHK, and CHK2 keys.
You may select amount tendered compulsory or inhibited for the CH thru CH5 keys.

Procedure



*1: Function no.

61: For the CA/AT key	80: For the CH3 key	87: For the CHK2 key
62: For the CA2 key	82: For the CH4 key	56: For the SRVC key
76: For the CH key	84: For the CH5 key	115: For the FS/TEND key
78: For the CH2 key	86: For the CHK key	133: For the FINAL key

*2

Item:		To:	Enter:
A	Always enter 0.	(Fixed position)	0
B	Bill (slip) compulsory	select compulsory	1
		select non-compulsory	0
C	Footer printing	select footer printing on selected media Yes	1
		select footer printing on selected media No	0
D	Non-add code compulsory	select compulsory non-add code entry	1
		select non-compulsory non-add code entry	0
E	Change enable (Over-tender enable)	select change disable	1
		select change enable	0
F	Validation print compulsory	select compulsory validation	1
		select optional validation	0
G	Drawer open	have the drawer remain closed	1
		have the drawer open	0
H	Compulsory amount tendered	select compulsory amount tendered	1
		select optional amount tendered for the CA/AT, CA2, CHK or CHK2 key	0
		inhibit amount tendered for the CH thru CH5 keys	0

Note

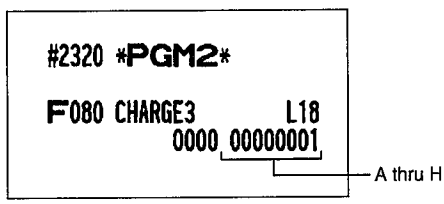
- *For the [SRVC] or [FINAL] key; always enter 0 as A, C, D, E, F, G, and H.*
- *For the [FS TEND] key; always enter 0 as A, D, E, and H.*

Example Programming for the [CH3] key for selecting only to have compulsory amount tendered

Key operation

2320 [•] [@/FOR]
80 [@/FOR] 00000001 [SBTL]
[CA/AT]

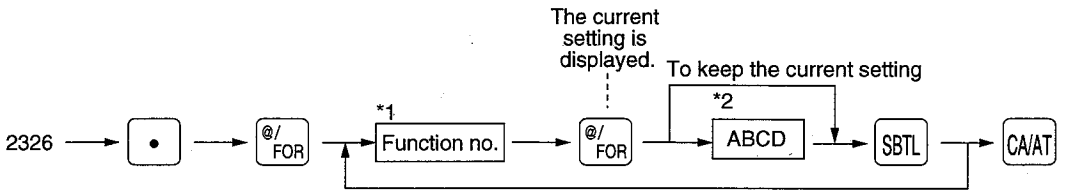
Print



■ Tax delete PGM 2 2326

You can program each media key to delete tax (i.e. tax 1, tax 2, tax 3, tax 4) when it is pressed.

Procedure



*1: Function no.

61: For the CA/AT key	82: For the CH4 key
62: For the CA2 key	84: For the CH5 key
76: For the CH key	86: For the CHK key
78: For the CH2 key	87: For the CHK2 key
80: For the CH3 key	

*2

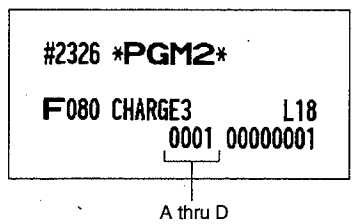
Item:		To:	Enter:
A	Tax 4 calculation status	delete tax 4	1
		calculate tax 4	0
B	Tax 3 calculation status	delete tax 3	1
		calculate tax 3	0
C	Tax 2 calculation status	delete tax 2	1
		calculate tax 2	0
D	Tax 1 calculation status	delete tax 1	1
		calculate tax 1	0

Example Programming the CH3 key to delete tax 1

Key operation

2326 • @/FOR
80 @/FOR 0001 SBTL
CA/AT

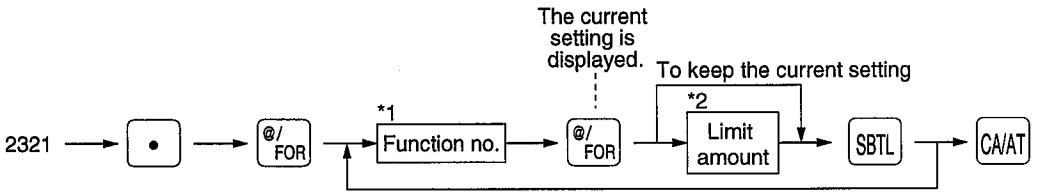
Print



■ High amount lockout (HALO) for check change, check cashing, and cash in drawer PGM 2 2321

You can program the upper limit amounts for check change, check cashing, and cash in drawer.

Procedure



*1: Function no.
68: For check cashing
69: For check change
89: For cash in drawer (Sentinel)

*2: Limit amount
0 thru 999999.99
(Check change and check cashing)
0 thru 9999999.99 (Cash in drawer)

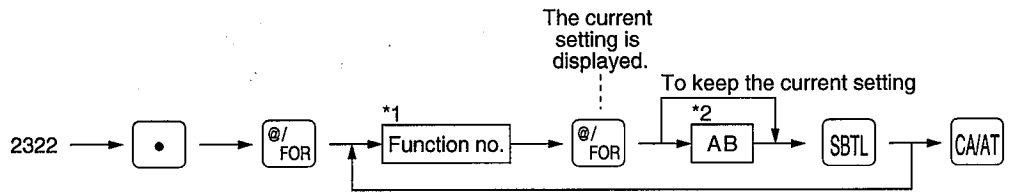
Example Setting the limit to $99.99 for check cashing.

Key operation	Print
2321 • @/FOR 68 @/FOR 9999 SBTL CA/AT	#2321 *PGM2* F068 CA/CHK 99.99 ← HALO limit

■ High amount lockout (HALO) of entry for media keys PGM 2 2322 Direct

The HALO limit is in effect for REG-mode operations but can be overridden in the MGR mode. The HALO limit is represented by two figures as follows:

Procedure



*1: Function no.
61: For the CA/AT key
62: For the CA2 key
76: For the CH key
78: For the CH2 key
80: For the CH3 key
82: For the CH4 key
84: For the CH5 key
86: For the CHK key
87: For the CHK2 key

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

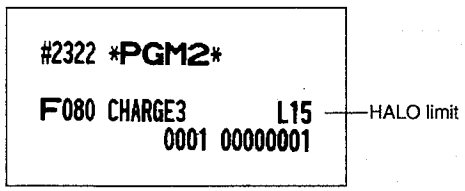
You can set up AB = 18 for no limitation.

Example Setting the HALO limit to $1000.00 (15) for the CH3 key

Key operation

2322 • @/FOR
80 @/FOR 15 SBTL
CA/AT

Print

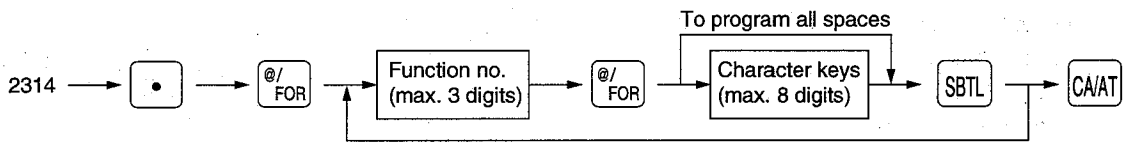


9 Programming of function text

■ Programming PGM 2 2314

You can program a maximum of 8 characters for each function key and other functions using the table on the following pages.

Procedure

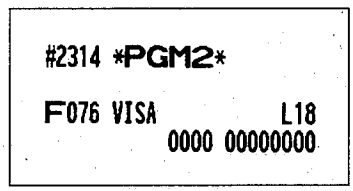


Example Programming VISA for CH

Key operation

2314 • @/FOR
76 @/FOR VISA SPACE SPACE SPACE SBTL
CA/AT

Print



■ Characters of function keys

Function no.	Key or function	Default setting
1	⊖1	**(–)1**
2	⊖2	**(–)2**
3	⊖3	**(–)3**
4	⊖4	**(–)4**
5	%1	**%1**
6	%2	**%2**
7	%3	**%3**
8	%4	**%4**
9	Net sales total	**NET1**
10	Net taxable 1 subtotal	TAX1 ST
11	Gross tax 1 total	GRS TAX1
12	Tax 1 total of refund entries	RFD TAX1
13	Net tax 1 total	TAX1
14	Exempt tax 1	TX1 EXPT
15	Net taxable 2 subtotal	TAX2 ST
16	Gross tax 2 total	GRS TAX2
17	Tax 2 total of refund entries	RFD TAX2
18	Net tax 2 total	TAX2
19	Exempt tax 2	TX2 EXPT
20	Net taxable 3 subtotal	TAX3 ST
21	Gross tax 3 total	GRS TAX3
22	Tax 3 total of refund entries	RFD TAX3
23	Net tax 3 total	TAX3
24	Exempt tax 3	TX3 EXPT
25	Net taxable 4 subtotal	TAX4 ST
26	Gross tax 4 total	GRS TAX4
27	TAX4 total of refund entries	RFD TAX4
28	Net tax 4 total	TAX4
29	Exempt tax 4	TX4 EXPT
30	Gross manual tax total	GRS MTAX
31	Refund manual tax total	RFD MTAX
32	Net manual tax total	M-TAX
* 33	Exempt total from GST	GST EXPT
* 34	PST total	PST TTL
* 35	GST total	GST TTL
36	FS1 forgive	FS TX1
37	FS2 forgive	FS TX2
38	FS3 forgive	FS TX3
39	TAX total	TTL TAX
40	Net	**NET**
41	Sales total including tax total	**NET2**
42	Coupon-like PLU	CP PLU

Function no.	Key or function	Default setting
43	Vender coupon UPC	V. CP UPC
44	Item void	VOID
45	Subtotal void	SBTL VD
46	Manager void	MGR VD
47	Void mode	**VOID**
48	Refund	REFUND
49	Hash item void	HASH VD
50	Hash item refund	HASH RF
51	No sale	NO SALE
52	Validation print counter	VP CNT
53	Bill (slip) counter	BILL CNT
54	Drawer counter	DRW CNT
55	PBAL	***PBAL
56	Service	SERVICE
57	Deposit	DEPOSIT
58	Deposit refund	DPST RF
59	Customer counter	TRANS CT
60	Sales total	**NET 3**
61	Cash	**C**ASH
62	Cash2	**C**ASH2
63	Food stamp sales	FSSALE
64	RA	***RA
65	RA2	***RA2
66	PO	***PO
67	PO2	***PO2
68	Check cashing	CA/CHK
69	Check change	CHK/CG
70	Food stamp change	FS/CG
71	Currency conversion1	CONV 1
72	Currency conversion2	CONV 2
73	Currency conversion3	CONV 3
74	Currency conversion4	CONV 4
75	Food stamp in drawer	FS/ID
76	Gross charge1	CHARGE1
77	Refund charge1	CHARGE1-
78	Gross charge2	CHARGE2
79	Refund charge2	CHARGE2-
80	Gross charge3	CHARGE3
81	Refund charge3	CHARGE3-
82	Gross charge4	CHARGE4
83	Refund charge4	CHARGE4-
84	Gross charge5	CHARGE5

Note *The items marked with " * " are for Canada only.*
The function no. 90 "Exempt VAT" is only effective for the Canadian tax system (2 GST, VAT type).

Function no.	Key or function	Default setting
85	Refund charge5	CHARGE5-
86	Check	CHECK
87	Check2	CHECK2
88	Cash+check in drawer	CA+CK ID
89	Cash in drawer	****CID
*90	Exempt VAT	VAT EXPT
91	Sales average (Hourly report)	AVE.
92	Group 1	GROUP01
93	Group 2	GROUP02
94	Group 3	GROUP03
95	Group 4	GROUP04
96	Group 5	GROUP05
97	Group 6	GROUP06
98	Group 7	GROUP07
99	Group 8	GROUP08
100	Group 9	GROUP09
101	Price 1 for UPC	UPC LV-1
102	Price 2 for UPC	UPC LV-2
103	Price 3 for UPC	UPC LV-3
104	(+)Dept. total	*DEPT TL
105	(–)Dept. total	DEPT(–)
106	Hash (+)dept. total	*HASH TL
107	Hash (–)dept. total	HASH(–)
108	(+)Bottle return total	*BTTL TL
109	(–)Bottle return total	BTTL(–)
110	Subtotal	SUBTOTAL

Function no.	Key or function	Default setting
111	Merchandise subtotal	MDSE ST
112	Total	***TOTAL
113	Change	CHANGE
114	Food stamp subtotal	FS ST
115	Food stamp tender	FS TEND
116	Food stamp change	FS CG
117	Items	ITEMS
118	Copy receipt title	**COPY**
119	Department report title	**DEPT**
120	Group report title	GROUP
121	PLU report title	**PLU**
122	Category report title	CATEGORY
123	Transaction report title	TRANS.
124	Cash in drawer report title	**CID**
125	Cashier report title	**CSR**
126	Hourly report title	HOURLY
127	Daily report title	DAILY
128	Zero sales report title	ZERO SAL
129	UPC report title	**UPC**
130	Non-accessed UPC title	NO ACCES
131	PBLU report title	**PBLU**
132	Price change title	PR. CHNG
133	FINAL (for PGM)	FINAL
134	BALANCE	BALANCE
135	Slip print message	SLIP PR.
136	Ballance forward	BAL FWD

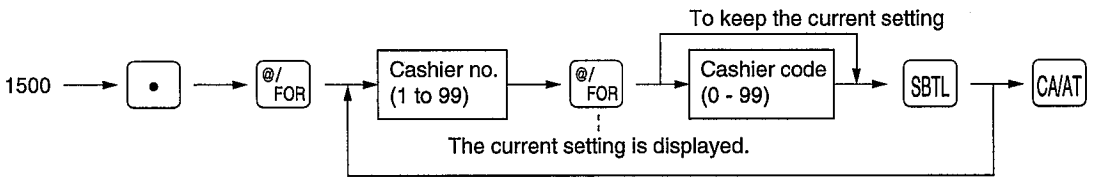
Note *The items marked with " * " are for Canada only.*
The function no. 90 "Exempt VAT" is only effective for the Canadian tax system (2 GST, VAT type).

10 Cashier programming

■ Cashier code PGM 1 PGM 2 1500

You can assign a cashier code to each cashier. (A maximum of 99 cashiers can be programmed.)
For more details, please contact your local dealer.

Procedure

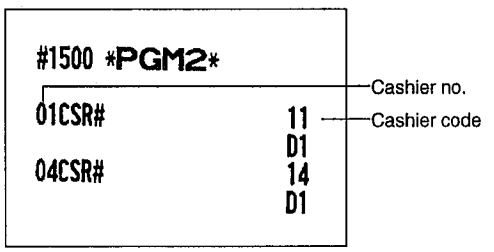


Example To program 11 for cashier no.1 and 14 for cashier no. 4.

Key operation

1500 • @/FOR
1 @/FOR 11 SBTL
4 @/FOR 14 SBTL
CA/AT

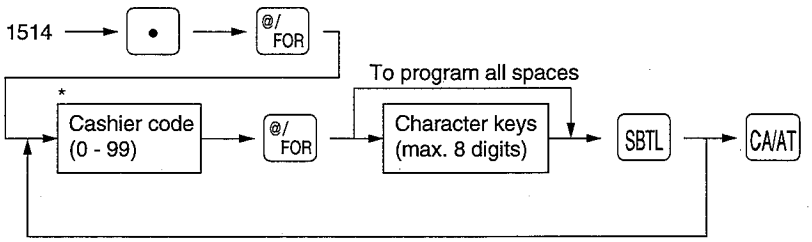
Print



■ Cashier name PGM 1 PGM 2 1514

You can program a maximum of 8 characters (cashier name) for each cashier.

Procedure



*: A code you have programmed for the cashier by job code 1500

Example To program "DICK" for cashier code 11 and "PETER" for cashier code 14

Key operation

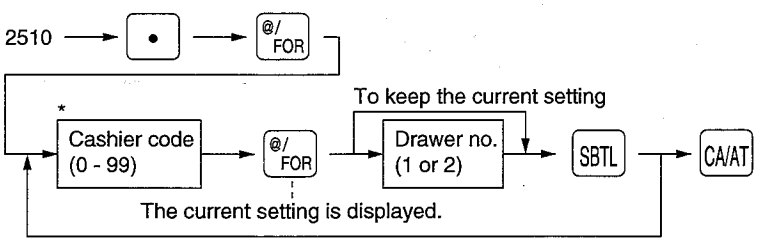
1514 • @/FOR
11 @/FOR DICK SBTL
14 @/FOR PETER SBTL
CA/AT

Print

```
#1514 *PGM2*

01CSR#          11
DICK            D1
04CSR#          14
PETER           D1
```

■ Assigning cashiers to drawers PGM 2 2510

Procedure



*: A code you have programmed for the cashier by job code 1500

Note *When you use no drawer, enter 0 for the drawer no. data.*

Example Assigning cashier code 11 to drawer no. 1

Key operation

2510 • @/FOR
11 @/FOR 1 SBTL
CA/AT

Print

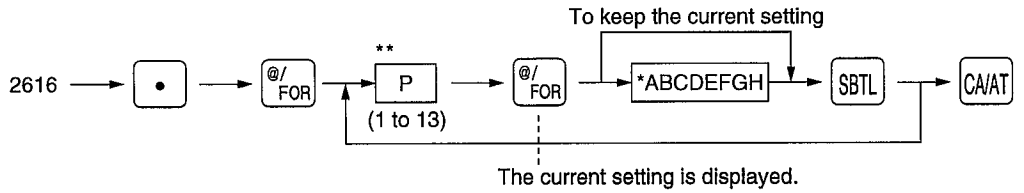
```
#2510 *PGM2*

01CSR#          11
DICK            D1 ——Drawer no.
```

11 Programming various functions

■ Programming for optional feature selection PGM 2 2616

Various controls for operations, reporting, etc. may be preset for your convenience. Please review each section to determine your desired settings.

Procedure



**P: 1

*

Item:		To:	Enter:
A	OP X/Z mode availability	allow the use of this mode	0
		disallow it	1
B	PO in REG-mode availability	allow the PO operation in REG-mode	0
		disallow it	1
C	Refund entry in the refund sales key availability	allow refund sales key entry in REG-mode	0
		disallow it	1
D	Refund key availability	allow the REG-mode refund entry	0
		disallow it	1
E	Direct void availability	allow the REG-mode direct void	0
		disallow it	1
F	Indirect void availability	allow the REG-mode indirect void	0
		disallow it	1
G	Subtotal void availability	allow the REG-mode subtotal void	0
		disallow it	1
H	Refund validation print compulsory/non-compulsory	select non-compulsory	0
		select compulsory	1

**P: 2
*

Item:		To:	Enter:
A	First item direct void availability	allow the first item direct void	0
		disallow it	1
B	Always enter 0.	(Fixed position)	0
C	Always enter 0.	(Fixed position)	0
D	Number of items purchased printed	disallow it	0
		allow it	1
E	Time print availability	allow time printing	0
		disallow it	1
F	Journal print form	select detailed journal	0
		select summary journal	1
G	Item validation print availability	allow item validation printing	0
		disallow it	1
H	Coupon validation print compulsory/non-compulsory	select non-compulsory	0
		select compulsory	1

**P: 3
*

Item:		To:	Enter:
A	UPC report zero suppression selection	select zero suppression	0
		select non-skip printing	1
B	Always enter 0.	(Fixed position)	0
C	Cashier report zero suppression selection	select zero suppression	0
		select non-skip printing	1
D	Transaction report zero suppression selection	select zero suppression	0
		select non-skip printing	1
E	Dept. report zero suppression selection	select zero suppression	0
		select non-skip printing	1
F	PLU report zero suppression selection	select zero suppression	0
		select non-skip printing	1
G	Hourly report zero suppression selection	select zero suppression	0
		select non-skip printing	1
H	Daily net report zero suppression selection	select zero suppression	0
		select non-skip printing	1

**P: 4 (ABCDEFGH: Not used)
**P: 5
*

Item:		To:	Enter:
A to E	Always enter 0.	(Fixed position)	0
F	UPC price shift entry	Allow in MGR or REG mode	0
		Allow in MGR mode	1
G	UPC price shift system	Auto (Automatic return mode)	0
		Manual (Lock shift mode)	1
H	UPC price shift return timing (Auto mode)	by each item entry	0
		by one receipt	1

**P: 6 (ABCDEFGH: Not used)
**P: 7
*

Item:		To:	Enter:
A and B	Always enter 0.	(Fixed position)	0
C	No sale in REG-mode availability	allow the "No sale" operation in REG-mode	0
		disallow it	1
D	Finalization availability	allow finalization in REG-mode when the subtotal amount is zero	0
		disallow it	1
E	Printing of item in PBLU transaction on the slip	Yes	0
		No	1
F	Always enter 0.	(Fixed position)	0
G	Always enter 0.	(Fixed position)	0
H	Always enter 0.	(Fixed position)	0

**P: 8
*

Item:		To:	Enter:
A to D	Always enter 0.	(Fixed position)	0
E	Check cashing validation print compulsory/non-compulsory	select non-compulsory	0
		select compulsory	1
F	RA validation print compulsory/non-compulsory	select non-compulsory	0
		select compulsory	1
G	PO validation print compulsory/non-compulsory	select non-compulsory	0
		select compulsory	1
H	Always enter 0.	(Fixed position)	0

**P: 9
*

Item:		To:	Enter:
A and B	Always enter 0.	(Fixed position)	0
C	Birthday print availability	allow the printing of entered birthday	0
		disallow it	1
D	Always enter 0.	(Fixed position)	0
E	Always enter 0.	(Fixed position)	0
F	Always enter 0.	(Fixed position)	0
G	Always enter 0.	(Fixed position)	0
H	Footer graphic logo printing	No	0
		Yes	1

**P: 10

*

Item:		To:	Enter:
A and **B**	Always enter 0.	(Fixed position)	0
C	Learning function for UPC entry	Yes	0
		No	1
D to **H**	Always enter 0.	(Fixed position)	0

**P: 11 (ABCDEFGH: Not used)

**P: 12

*

Item:		To:	Enter:
A to **G**	Always enter 0.	(Fixed position)	0
H	Price change for UPC entry in REG mode	Enable	0
		Disable	1

**P: 13

*

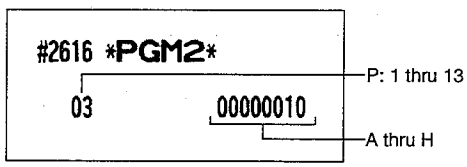
Item:		To:	Enter:
A to **C**	Always enter 0.	(Fixed position)	0
D	Printing of price shift text on the receipt/jounal	Yes	0
		No	1
E	Always enter 0	(Fixed position)	0
F	Treating the EAN8 code (200XXXXC/D)	Yes	0
		No	1
G	Always enter 0	(Fixed position)	0
H	Price entry after ISBN or ISSN	Compulsory	0
		Inhibited	1

Example Programming to select zero suppression for UPC report, cashier report, transaction report, dept. report, PLU report and daily net report, and to select non-skip printing for an hourly report.

Key operation

2616 [•] [@/FOR]
3 [@/FOR] 00000010 [S/TL]
[CA/AT]

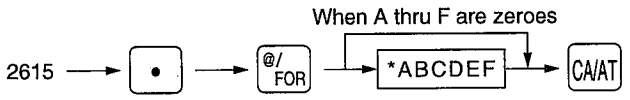
Print



■ Programming the parameter of the slip printer

PGM 2 **2615**

Procedure



* AB: Initial slip feed line (0 to 64)
CD: Slip print max. line no. (0 to 99)
E: Validation printing counter (1 thru 9 times)
To inhibit validation printing, enter 0.
F: Always enter 0. (Fixed position)

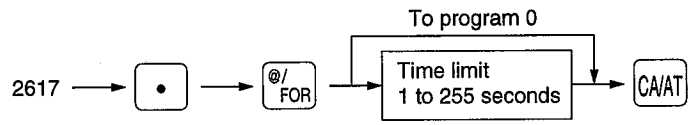
Example Entering 1 to E and 0 to F.

Key operation	Print
2615 • @/FOR 10 CA/AT	#2615 *PGM2* 00 00 1 0

■ Setting the time limit for THE TILL TIMER™ PGM 2 **2617**

The machine counts the number of times the drawer is left open for longer than a programmed time limit. The counter will be incremented by one each time a 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 general report and cashier report.

Procedure



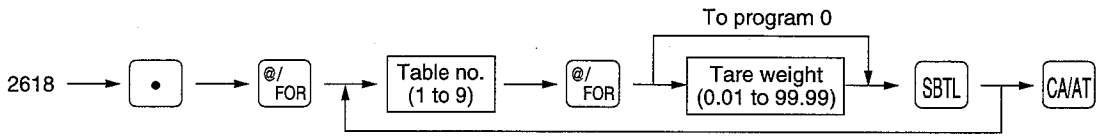
Example Setting the time limit as 30 (seconds).

Key operation	Print
2617 • @/FOR 30 CA/AT	#2617 *PGM2* 030

■ Scale tare table PGM 2 2618

The register can be programmed with up to nine tare tables and allows different tares to be assigned to them (for auto scale entries).

Procedure

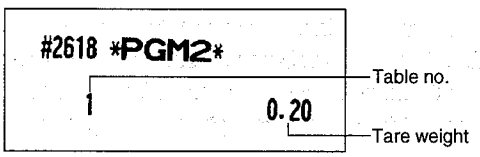


Example To assign the tare weight 0.20 lbs to tare table no. 1

Key operation

2618 • @/FOR
1 @/FOR 20 SBTL
CA/AT

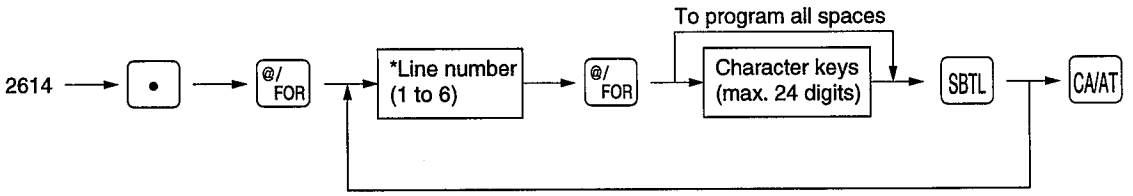
Print



■ Programming of logo text messages PGM 2 2614

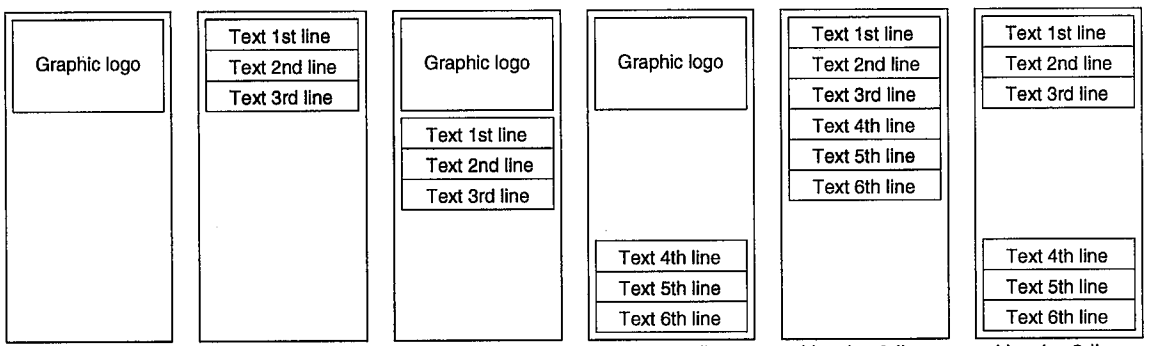
Your register can print programmed messages for customers on every receipt.

Procedure



* "Header 3-line message" type: 1 to 3
"Footer 3-line message" type : 4 to 6
"Header 6-line message" type: 1 to 6
"Header 3-line and footer 3-line message" type: 1 to 6 (1 to 3 as header, 4 to 6 as footer)

A maximum of 6 lines are available. The type of printing "header 3-line message" is available for the standard model. The line numbers you select are accoding to the four types of printing: "header 3-line message" type, "footer 3-line message" type, "header 6-line message" type and "header 3-line and footer 3-line message" type. If you want to change the type of printing, please consult your dealer.



Header 3-line message | Footer 3-line message | Header 6-line message | Header 3-line message and footer 3-line messages

Example To program the following messages by using 3 lines:

=== YOUR ===
== STORE ==
MESSAGE

Key operation

2614 • @/FOR
1 @/FOR (SPACE) (SPACE) (SPACE) (SHIFT-2) = (SHIFT-2) = (SHIFT-2) = (SPACE)
(DC) Y (DC) O (DC) U (DC) R
(SPACE) (SHIFT-2) = (SHIFT-2) = (SHIFT-2) = SBTL
2 @/FOR (SPACE) (SPACE) (SPACE) (SHIFT-2) = (SHIFT-2) = (SPACE)
(DC) S (DC) T (DC) O (DC) R (DC) E
(SPACE) (SHIFT-2) = (SHIFT-2) = SBTL
3 @/FOR (SPACE) (SPACE) (SPACE) (SPACE)
(DC) M (DC) E (DC) S (DC) S (DC) A (DC) G (DC) E
SBTL
CA/AT
((SPACE):Space key)

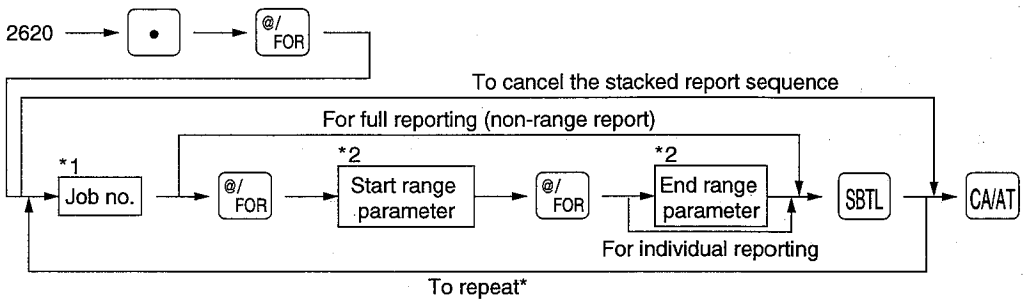
Print

#2614 *PGM2*
=== YOUR ===
== STORE ==
MESSAGE

■ Selection of X1/Z1 and X2/Z2 reports to be printed in the stacked report sequence PGM 2 2620

Your register is equipped with the stacked report printing function that enables multiple X/Z reports to be printed in sequence with only a single request, up to maximum of 11 reports*. This function continuously prints a maximum of 11 kinds of reports with a single operation.

Procedure



*: Maximum 70 steps are programmable. "1 step" means the memory size used for one no-range type job no. The range type job no. needs "8 steps".

Job code numbers to be used are as follows.

*1 *2

Job no.	Report	Available mode	Range parameter
00	General report		
07	UPC zero sales report	X1/X2 mode only	
09	UPC report (full)		
10	Full department report	X1/X2 mode only	
13	Full department group report	X1/X2 mode only	
20	PLU report		*3 Start PLU no./end PLU no. (1 thru 999999)
27	PLU zero sales	X1/X2 mode only	*3 Start PLU no./end PLU no. (1 thru 999999)
29	PLU price category report	X1/X2 mode only	*3 Start price amount/end price amount
30	Transaction report	X1/X2 mode only	
31	Cash in drawer report	X1/X2 mode only	
50	Full cashier report		
60	Hourly sales information	Range report is available only in the X1/X2 mode.	*3 Start time/end time (0 thru 2330)
70	Daily net report	X2/Z2 mode only	
80	PBLU report		*3 Start PBLU code/end PBLU code (1 thru 9999)

*3: Both range setting and full setting are allowed.

Note *When Z of stacked report is initiated, X only reports will be skipped.*

Example To print reports 10 and 13 as a stacked report.

Key operation

2620 • @/FOR
10 SBTL
13 SBTL
CA/AT

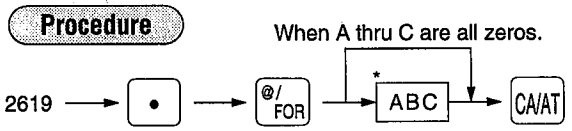
Print

#2620 *PGM2*
10
13

■ Setting the time range for hourly reports PGM 2 2619

You can set the time range for an hourly report.

Procedure



*A: Time range
To set the time range to 30 minutes (in the 24-hour system), enter 0.
To set the time range to 60 minutes (in the 24-hour system), enter 1.
BC: Starting time (hour = 00 to 23)

Example Setting the time range to 60 minutes with the starting time being set at 7:00

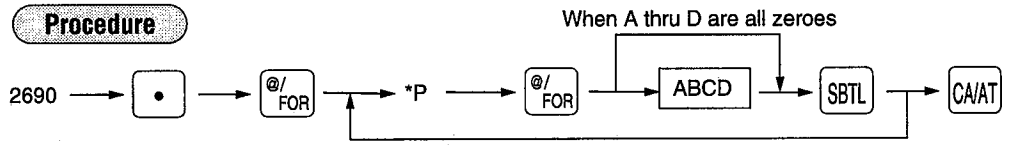
Key operation	Print
2619 • @/FOR 107 CA/AT	#2619 *PGM2* 1 07

Note *To change this setting, an hourly Z report (# 160) must be taken.*

■ RS-232C channel assignment PGM 2 2690

Your machine is equipped with two RS-232C interfaces. If you use the communication function, the scale, the barcode reader, the slip printer, the channel number of each RS-232C interface must be programmed by using the following procedure.

Procedure



*P: 1

Item:		To:	Enter:
A	For the ON-LINE communication	Disable	0
		Enable (enter the channel no.): port 2	1
		Enable (enter the channel no.): port 1	8
B	For sending the print data	Disable	0
		Enable (enter the channel no.): port 2	1
		Enable (enter the channel no.): port 1	8
C	For connecting the scale	Disable	0
		Enable (enter the channel no.): port 2	1
		Enable (enter the channel no.): port 1	8
D	Always enter 0.	(Fixed position)	0

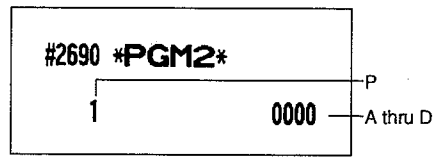
*P: 2

Item:		To:	Enter:
A	For connecting the barcord reader	Disable	0
		Enable (enter the channel no.): port 2	1
		Enable (enter the channel no.): port 1	8
B to D	Always enter 0.	(Fixed position)	0

*P: 3

Item:		To:	Enter:
A	Always enter 0.	(Fixed position)	0
B	For connecting the slip printer	Disable	0
		Enable (enter the channel no.): port 2	1
		Enable (enter the channel no.): port 1	8
C and D	Always enter 0.	(Fixed position)	0

Example To disable the communication function, sending the print data, connecting the scale

Key operation	Print
2690 [•] [@/FOR] 1 [@/FOR] [SBTL] [CA/AT]	

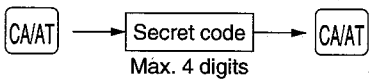
Note *Never enter any number other than 0, 1 and 8.*

■ Secret codes to control access to PGM1 mode, X1/Z1 mode and X2/Z2 mode PGM 2 2630 2631 2632

You must enter a secret code according to the following procedure before performing any PGM1-mode, X1/Z1-mode or X2/Z2-mode operation when a secret code has been set for that specific mode operation.

Operating

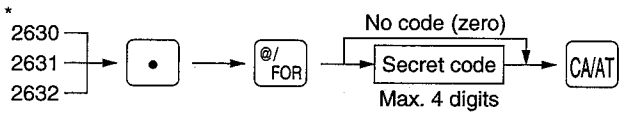
Procedure



Note *Once a secret code is entered, it does not need to be entered again unless the mode switch setting is changed and any operation, such as a sales registration, reporting, or programming, is performed.*

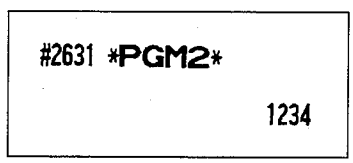
Programming

Procedure



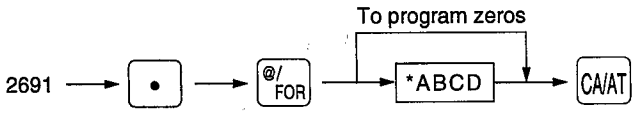
* 2630 for the PGM1 mode
2631 for the X1/Z1 mode
2632 for the X2/Z2 mode

Example Programming secret code 1234 for X1/Z1 mode

Key operation	Print
2631 [•] [@/FOR] 1234 [CA/AT]	

■ Barcode reader programming PGM 2 2691

Procedure



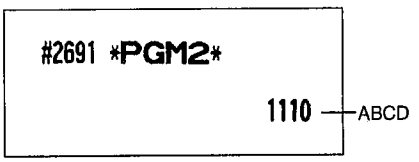
*	Item:		Selection:	Entry:
	A	Data bit	7 bits	1
			8 bits	0
	B	Parity bit	Non parity	2
			Odd parity	1
			Even parity	0
	C	Stop bit	1 bit	1
			2 bits	0
	D	Transmission speed	19200 bps	2
			9600 bps	1
			4800 bps	0

Example

Key operation

2691 • @/FOR
1110 CA/AT

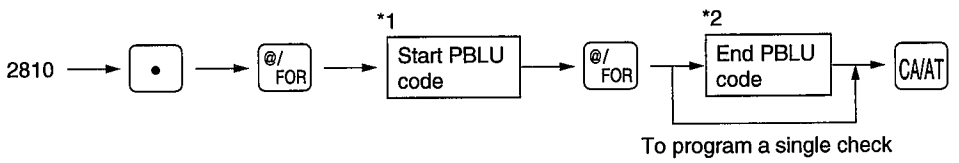
Print



■ PBLU code programming PGM 2 2810

You can program the range of available guest check codes.
When you use this function, the PBLU file must be created.

Procedure



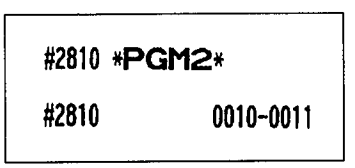
*1: 1 thru 9999 (free code)
*2: 1 thru 9999 (free code)

Example To designate PBLU code 10 and 11 for use

Key operation

2810 • @/FOR
10 @/FOR 11 CA/AT

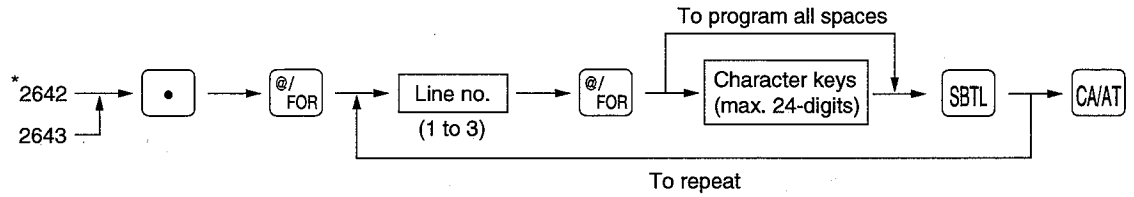
Print



■ Check validation message/Slip printer's logo message PGM 2 2642 2643

- **Check validation message on a slip** (Job# 2642)
  You can program a 3-line message for check validation printing on a slip.
  Note: 1 line = 24 characters
- **Slip printer's logo messages** (Job# 2643)
  You can program a 3-line logo message for the slip printer.
  Note: 1 line = 24 characters

Procedure

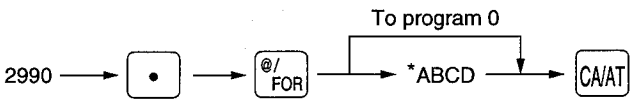


* Job no.
2642: For check validation message on a slip
2643: For slip printer's logo messages

■ Printer programming PGM 2 2990

You can also program the machine for the printing density; the average is 50, and the larger number you set, you can get the higher density.
The standard model has been programmed to be auto cutter and "50" for the printing density.

Procedure

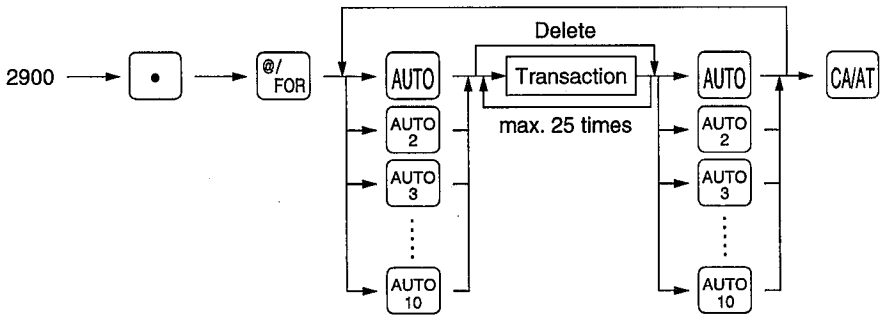


* A: Always 1
B: Always 0
CD: Printing density (00 through 99) : 00=80%, 50=90%, 99=100%

■ Setting the AUTO key — Automatic sequencing key — X2/Z2 2900

If you program frequently performed transactions or report sequences for the AUTO keys, you can enter those transactions 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



Example Programming for [AUTO] key and [AUTO 2] key as follows:
[AUTO] ; entering a $1.50 item (PLU no. 2) and a $1.00 item (dept. 3)
[AUTO 2] ; selling a $5.00 -programmed- item (dept. 2) for cash

Key operation

2900 [•] [@/FOR] [AUTO]
AUTO1 → 2 setting [PLU/SUB] 100 [3] [AUTO]
AUTO2 setting → [2] [CA/AT] [AUTO 2] [CA/AT]

Print

```
#2900 *PGM2*
#01
                2 KEY
            PLU/SB
                1 KEY
                0 KEY
                0 KEY
               D03
#02
               D02
            CA/AT
```

Note *When the AUTO key has been programmed to execute a report job function etc., the mode switch must be in the appropriate position.*

12 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 sales 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 PGM 2 2910 2911

For activation

Procedure

2910 → [•] → [@/FOR] → [CA/AT]

Print

```
#2910 *PGM2*
TRAINING ..... START
```

For deactivation

Procedure

2911 → [•] → [@/FOR] → [CA/AT]

Print

```
#2911 *PGM2*
TRAINING ..... END
```

■ 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 a " * TRAINING * " 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 an operation is completed.

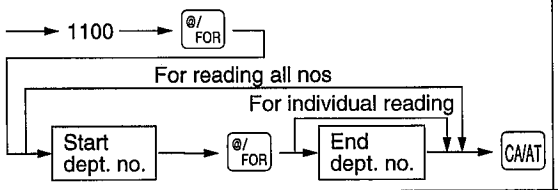
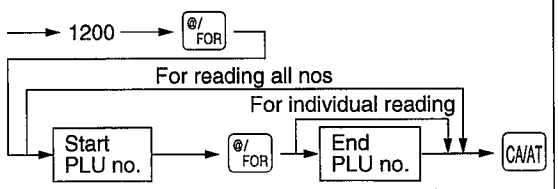
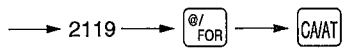
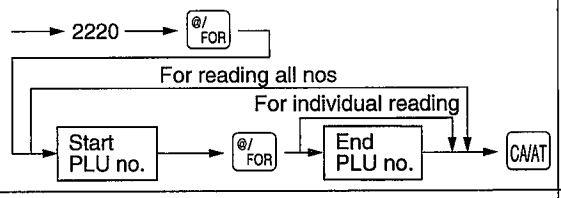
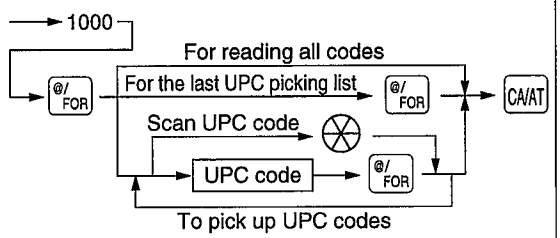
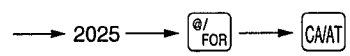
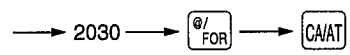
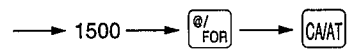
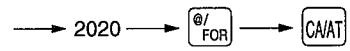
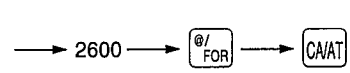
Sample printout of TRAINING-mode entries

```
08/26/01  7:33PM        11
123456 #1139    DICK

        *TRAINING*
STEAK                $10.00
DPT.03                $5.00

***TOTAL            $15.00
CASH                 $20.00
CHANGE                $5.00
```

13 Reading stored programs

Your machine allows you to read every program stored in the PGM1 and PGM2 modes.

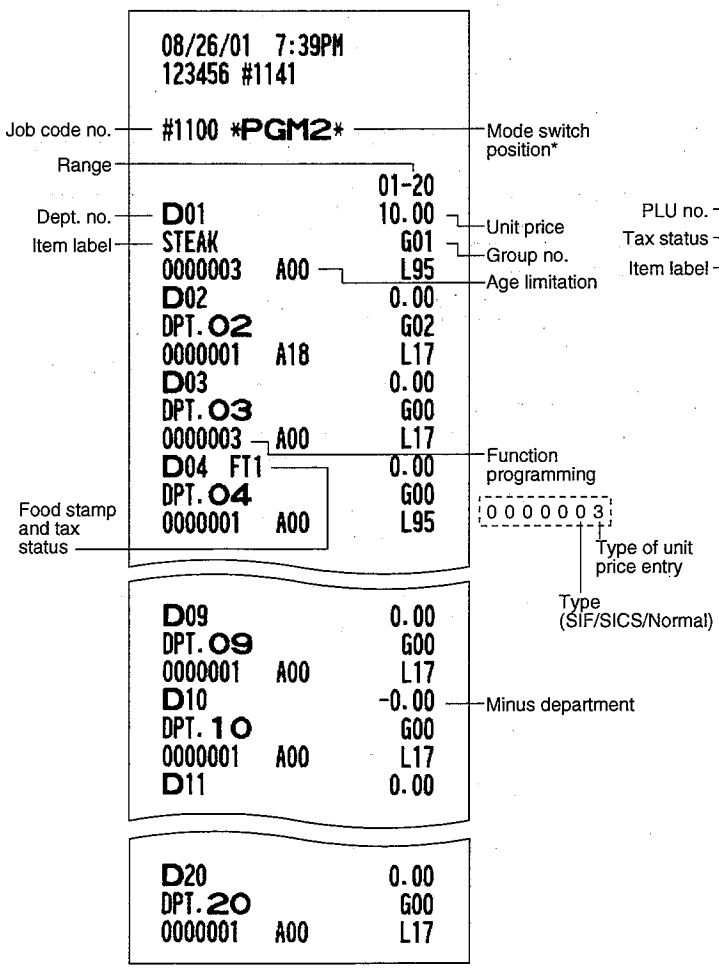
■ Program details and procedures for their reading

Program for:		Mode switch position	Job code no.	Procedure	Related PGM1/ PGM2 job code nos.
1	Departments	PGM2 or PGM1	1100		1110, 2110, 2111, 2112, 2114, 2116, 2180
2	PLUs/ subdepartments	PGM2 or PGM1	1200		1200, 1210, 1211, 2210, 2211, 2214, 2230, 2231, 2232, 2280
3	Key nos. for departments and PLUs	PGM2	2119		2119, 2219
4	Link PLUs	PGM2	2220		2220
5	UPCs 1	PGM1 or PGM2	1000		1000, 1010 1011, 2010 2011, 2014 2017, 2080
6	UPCs 2	PGM2	2025		2025, 2029
7	UPC link	PGM2	2030		2030
8	Cashiers	PGM2 or PGM1	1500		1500, 1514, 2510
9	Mix and match table	PGM2	2020		2020
10	Function 1	PGM2 or PGM1	1300		1310, 2311, 2312, 2313, 2314, 2315, 2316, 2320, 2321, 2322, 2326
11	Function 2	PGM2	2600		2614, 2615, 2616, 2617, 2618, 2619, 2620, 2630, 2631, 2632, 2690, 2691

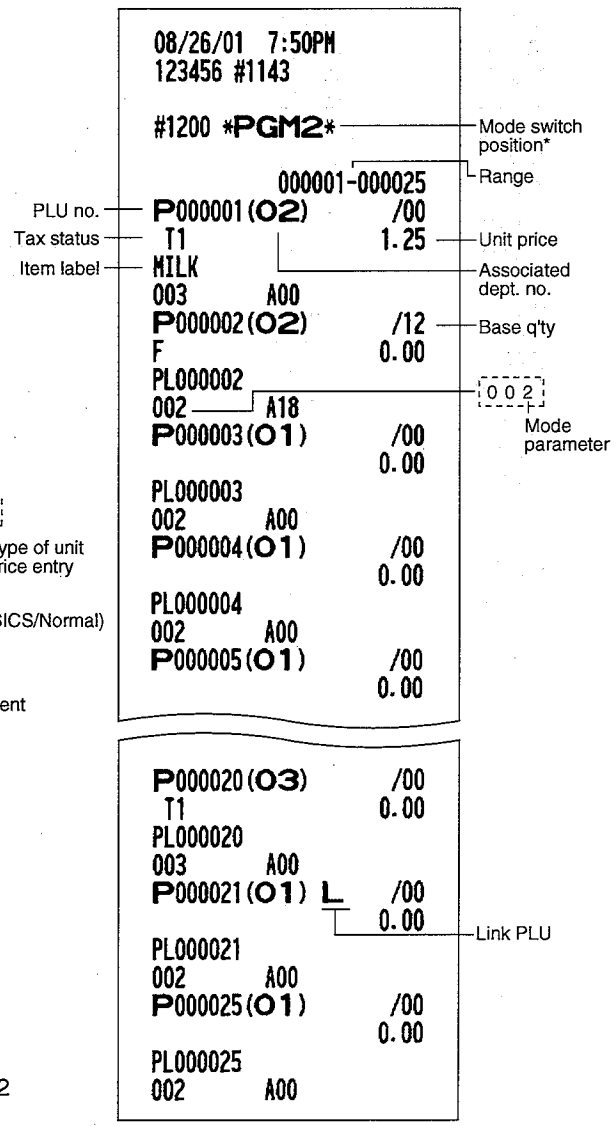
	Program for:	Mode switch position	Job code no.	Procedure	Related PGM1/ PGM2 job code nos.
12	Tax tables and rates	PGM2	2700	→ 2700 → @/FOR → CA/AT	2710, 2711, 2715
13	Slip text	PGM2	2640	→ 2640 → @/FOR → CA/AT	2642, 2643
14	PBLU code	PGM2	2800	→ 2800 → @/FOR → CA/AT	2810
15	Auto keys	PGM2	2900	→ 2900 → @/FOR → CA/AT	2900
16	Thermal printing	PGM2	2990	→ 2990 → @/FOR → CA/AT	2990

■ Sample printouts

1. Reading of programmed items for departments (Reading in the PGM1 and PGM2 modes)

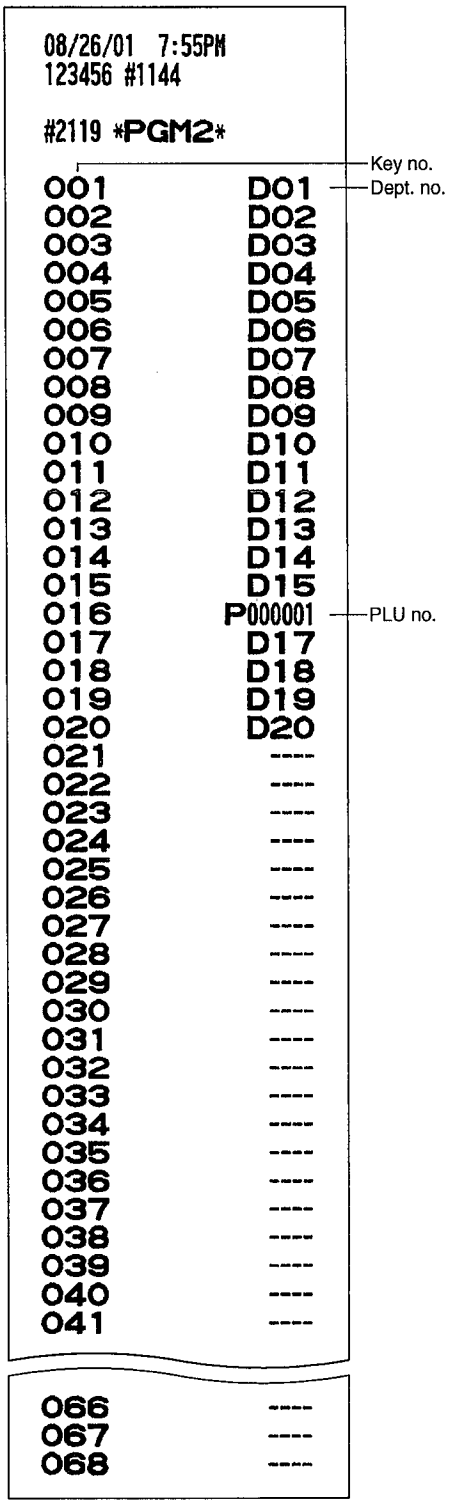


2. Reading of programmed items for PLUs/subdepartments (Reading in the PGM1 and PGM2 modes)

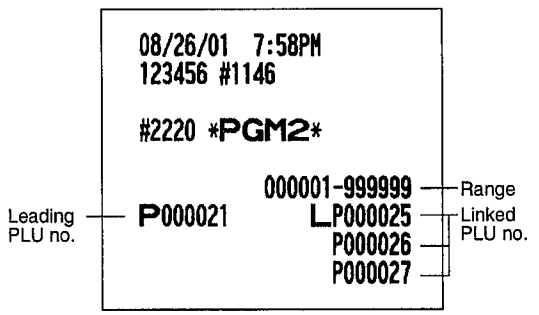


* When you take this report in the PGM1 mode, the PGM2 indication is replaced by a "PGM1".

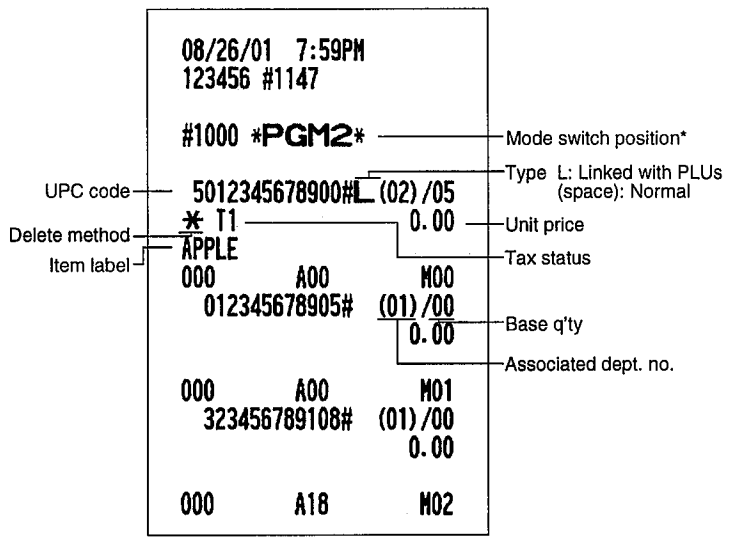
3. Reading of programmed key nos. for departments and PLUs (Reading in the PGM2 mode)



4. Reading of programmed items for link PLUs (Reading in the PGM2 mode)



5. Reading of programmed items for UPCs - 1 (Reading in the PGM1 and PGM2 modes)

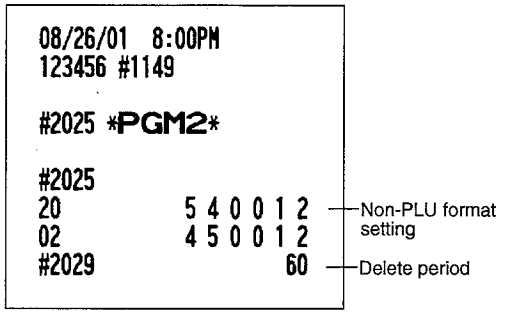


* When you take this report in the PGM1 mode, the PGM2 indication is replaced by a "PGM1".

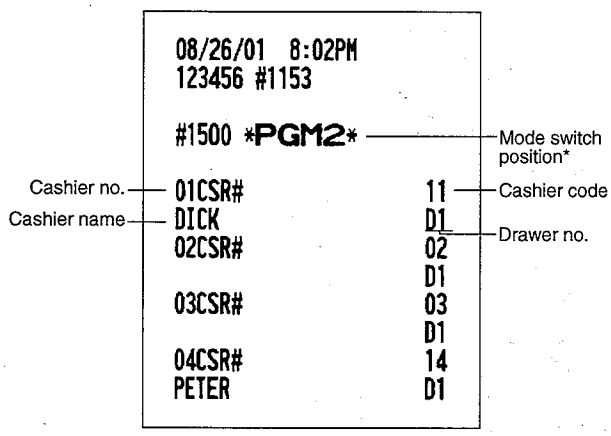
Note *The UPC codes are printed out in the sequence shown below.*

EAN-13
EAN-8
UPC-A
UPC-E

6. Reading of programmed items for UPCs - 2 (Reading in the PGM2 mode)

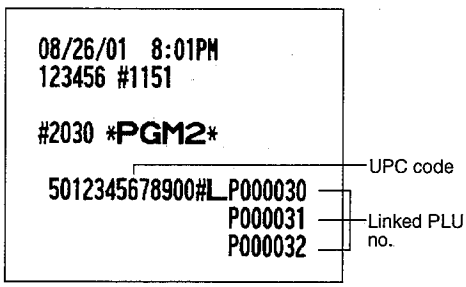


8. Reading of programmed items for cashiers (Reading in the PGM1 and PGM2 modes)

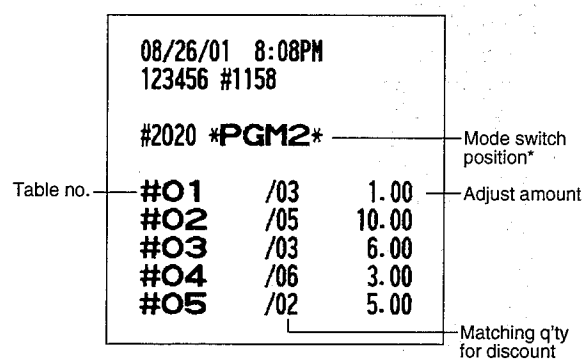


* When you take this report in the PGM1 mode, the PGM2 indication is replaced by a "PGM1".

7. Reading of programmed items for UPC link (Reading in the PGM2 mode)



9. Reading of programmed mix and match table (Reading in the PGM2 mode)



10. Reading of programmed items for functions - 1 (Reading in the PGM1 and PGM2 modes)

```
08/26/01  8:23PM
123456 #1161

#1300 *PGM2*
F001  (-) 1
I                -10.00
                    L13
F002  (-) 2
S                 -0.00
                    L17
F005  %1
I                 10.25%
      T1        L 15.00%
F006  %2
S                 -0.00%
                 L100.00%
F009  NET1
F010  TAX1 ST
F011  GRS TAX1
F012  RFD TAX1
F013  TAX1
F014  TX1 EXPT
F015  TAX2 ST
F016  GRS TAX2
F017  RFD TAX2
F018  TAX2
F019  TX2 EXPT
F020  TAX3 ST
F021  GRS TAX3
F022  RFD TAX3
F023  TAX3
F024  TX3 EXPT
F025  TAX4 ST
F026  GRS TAX4
F027  RFD TAX4
F028  TAX4
F029  TX4 EXPT
F030  GRS MTAX
F031  RFD MTAX
F032  M-TAX            L17
F036  FS TX1
F037  FS TX2
F038  FS TX3
F039  TTL TAX
F040  NET
F041  NET2
F042  CP PLU
```

Mode switch position*

```
F043  V.CP UPC
F044  VOID
F045  SBTL VD
F046  MGR VD
F047  VOID
F048  REFUND
F049  HASH VD
F050  HASH RF
F051  NO SALE
F052  VP CNT
F053  BILL CNT
F054  DRW CNT
F055  ***PBAL
F056  SERVICE
                00000000
F057  DEPOSIT
F058  DPST RF
F059  TRANS CT
F060  NET3
F061  CASH             L18
            0000 00000000
F062  CASH2            L18
            0000 00000000
F063  FSSALE
F064  ***RA            L18
F066  ***PO            L18
F068  CA/CHK
                   99.99
F069  CHK/CG
               999999.99
F070  FS/CG
F071  CONV 1
                    1.3250
F075  FS/ID
F076  VISA             L18
            0000 00000000
F077  CHARGE1-
F078  CHARGE2          L15
            0000 00000000
F079  CHARGE2-
F080  CHARGE3          L15
            0001 00000001
F081  CHARGE3-
F086  CHECK            L18
            0000 00000000
F088  CA+CK ID
F089  ****CID
               9999999.99
F091  AVE.
F092  GROUP01
F093  GROUP02
F094  GROUP03
```

To be continued on the next page

* When you take this report in the PGM1 mode, the PGM2 indication is replaced by a "PGM1".

```
F095 GROUP04
F096 GROUP05
F097 GROUP06
F098 GROUP07
F099 GROUP08
F100 GROUP09
F101 UPC LV-1
F104 *DEPT TL
F105 DEPT(-)
F106 *HASH TL
F107 HASH(-)
F108 *BTTL TL
F109 BTTL(-)
F110 SUBTOTAL
F111 MDSE ST
F112 ***TOTAL
F113 CHANGE
F114 FS ST
F115 FS TEND
                00000000
F116 FS CG
F117 ITEMS
F118 COPY
F119 DEPT
F120  GROUP
F121  PLU
F122 CATEGORY
F123  TRANS.
F124  CID
F125  CSR
F126  HOURLY
F127  DAILY
F128 ZERO SAL
F129  UPC
F130 NO ACCES
F131 PBLU
F132 PR.CHNG
F133 FINAL
                00000000
F134 BALANCE
F135 SLIP PR.
F136 BAL FWD
```

11. Reading of programmed items for functions - 2 (Reading in the PGM2 mode)

```
08/26/01  8:28PM
123456 #1165

#2600 *PGM2*

#2614
   === YOUR ===
   == STORE ==
    MESSAGE
#2615          00 00 1 0
#2616
   01          00000000
   02          00000000
   03          00000101
   04          00000000
   05          00000000
   06          00000000
   07          00000000
   08          00000000
   09          00000000
   10          00000000
   11          00000000
   12          00000000
   13          00000000
#2617             030
#2618
   1             0.20
   2             0.00
   3             0.00
   4             0.00
   5             0.00
   6             0.00
   7             0.00
   8             0.00
   9             0.00
#2619             1 07
#2620
                   10
                   13
#2630            0000
#2631            1234
#2632            0000
#2690
   1             0000
   2             0000
   3             0800
#2691            1110
```

Logo text message

Parameter of the slip printer

Optional feature selection

Till timer

Scale tare table

Hourly report format/start hour

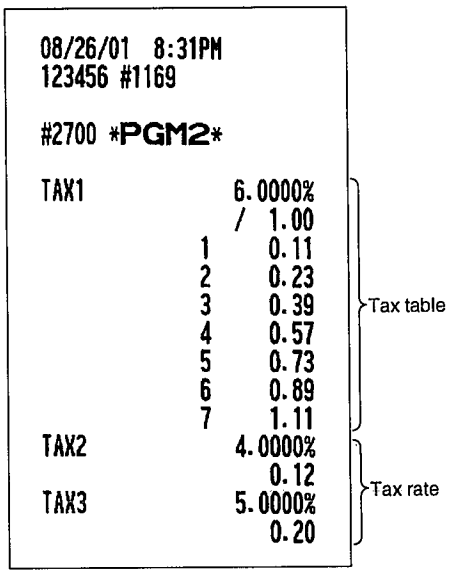
Stacked report

Secret code

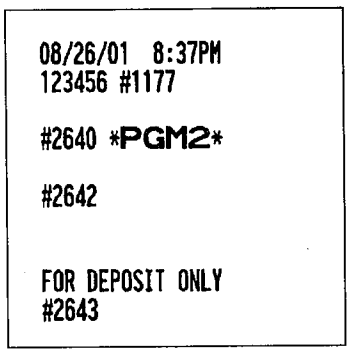
RS-232C channel data

Barcode reader programming

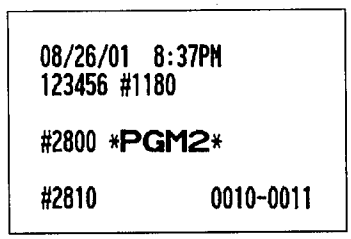
12. Reading of programmed tax tables and rates (Reading in the PGM2 mode)



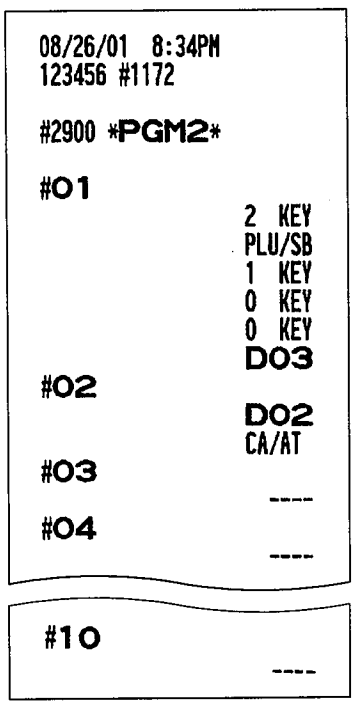
13. Reading of programmed slip text



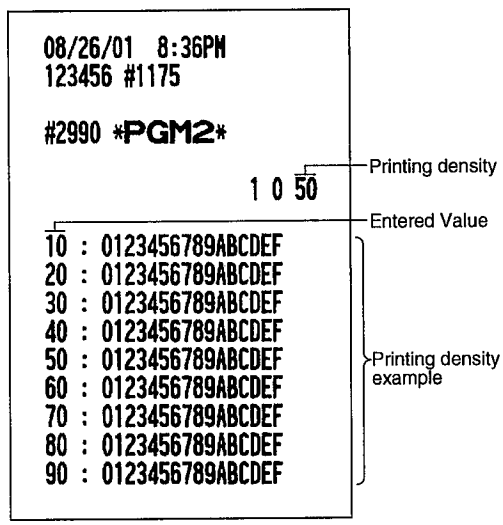
14. Reading of programmed PBLU code



15. Reading of programmed items for auto keys (Reading in the PGM2 mode)



16. Reading of programmed items for the thermal printer (Reading in the PGM2 mode)



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

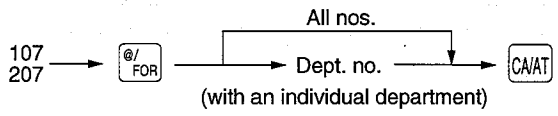
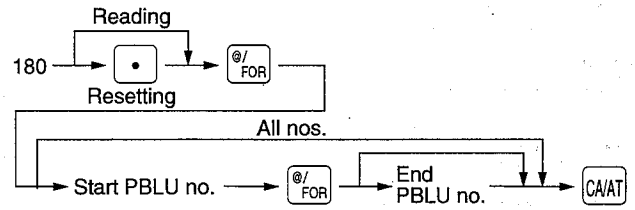
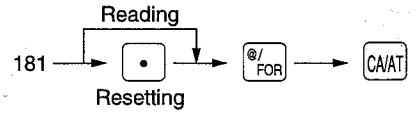
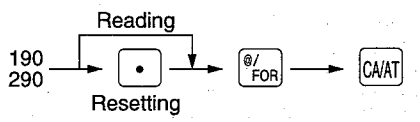
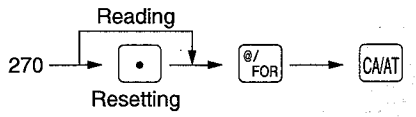
- Use the reading function (X) when you need to take a reading of sales information entered since the last resetting. You can take this reading any number of times. It does not affect the register's memory.
- Use the resetting function (Z) when you need to clear the register's memory. Resetting prints 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

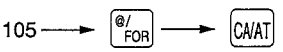
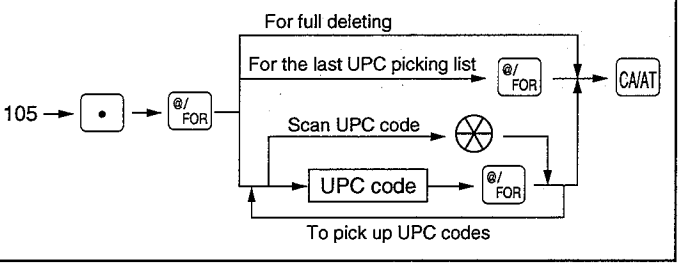
X1 and Z1 reports: Daily sales reports
X2 and Z2 reports: Periodic (monthly) consolidation reports

<table>
<tr><th rowspan="2">Item</th><th colspan="2">Mode switch position</th><th rowspan="2">Job code</th><th rowspan="2">Key operation</th></tr>
<tr><th>X1/Z1</th><th>X2/Z2</th></tr>
<tr><td rowspan="3">Flash report:
(Only display)
To clear the display, press the [CL] key.</td><td rowspan="3">X1</td><td rowspan="3">—</td><td rowspan="3">—</td><td>Dept. key ([1] to [50])
Dept. no. → [DEPT #] : Department total amount</td></tr>
<tr><td>[@/FOR] key: Amount of cash in drawer</td></tr>
<tr><td>[SBTL] key: Sales total</td></tr>
<tr><td rowspan="2">Full reading and resetting</td><td>X1, Z1</td><td>X1, Z1</td><td>100</td><td rowspan="2">100
200 → [•] (Reading / Resetting) → [@/FOR] → [CA/AT]</td></tr>
<tr><td></td><td>X2, Z2</td><td>200</td></tr>
<tr><td rowspan="3">Individual cashier reading and resetting</td><td>X1, Z1</td><td>X1, Z1</td><td>151</td><td rowspan="2">151
251 → [•] (Reading / Resetting) → [@/FOR] → [CA/AT]</td></tr>
<tr><td></td><td>X2, Z2</td><td>251</td></tr>
<tr><td colspan="2"><OP X/Z> X, Z</td><td>51</td><td>51 → [•] (Reading / Resetting) → [@/FOR] → [CA/AT]</td></tr>
<tr><td rowspan="2">Full cashier reading and resetting</td><td>X1, Z1</td><td>X1, Z1</td><td>150</td><td rowspan="2">150
250 → [•] (Reading / Resetting) → [@/FOR] → [CA/AT]</td></tr>
<tr><td></td><td>X2, Z2</td><td>250</td></tr>
<tr><td rowspan="2">Reading and resetting of hourly sales information</td><td colspan="2">X1</td><td rowspan="2">160</td><td>Reading: 160 (For individual time range) → [@/FOR] → Start* time → [@/FOR] → End* time → [CA/AT]
* Enter the time in the military time (24-hour) system.</td></tr>
<tr><td colspan="2">X1, Z1</td><td>Reading and Resetting: 160 → [•] (Reading / Resetting) → [@/FOR] → [CA/AT]</td></tr>
</table>

Item	Mode switch position		Job code	Key operation
	X1/Z1	X2/Z2		
Full department reading	X1	X1	110	110 / 210 → @/FOR → CA/AT
		X2	210	
Individual group reading	X1	X1	112	112 / 212 → @/FOR → Group no. → CA/AT
		X2	212	
Full group reading	X1	X1	113	113 / 213 → @/FOR → CA/AT
		X2	213	
Reading and resetting of sales information for a range of PLUs/ subdepartments	X1, Z1	X1, Z1	120	120 / 220 → • (Reading / Resetting) → @/FOR; All nos. → Start PLU no. → @/FOR → End PLU no. → CA/AT
		X2, Z2	220	
Reading and resetting of sales information of PLUs/ subdepartments associated with an individual department	X1, Z1	X1, Z1	121	121 / 221 → • (Reading / Resetting) → @/FOR → Dept. no. → CA/AT
		X2, Z2	221	
Reading of information on PLUs/ subdepartments whose sales amounts are zeros	X1	X1	127	127 / 227 → @/FOR → All nos. → Dept. no. (with an individual department) → CA/AT
		X2	227	
Reading of sales information for the price amount range of PLUs/sub department	X1	X1	129	129 / 229 → @/FOR; All prices → Start price amount → @/FOR → End price amount → CA/AT
		X2	229	
Transaction reading	X1	X1	130	130 / 230 → @/FOR → CA/AT
		X2	230	
Cash in drawer reading	X1	X1	131	131 / 231 → @/FOR → CA/AT
		X2	231	
Reading and resetting of sales information for UPCs	X1, Z1	X1, Z1	109	109 / 209 → • (Reading / Resetting) → @/FOR; For full reading and resetting; For the last UPC picking list → @/FOR → CA/AT; Scan UPC code → ⊗; UPC code → @/FOR; To pick up UPC codes
		X2, Z2	209	
Reading and resetting of sales information for UPCs associated with an individual department	X1, Z1	X1, Z1	101	101 / 201 → • (Reading / Resetting) → @/FOR → Dept. no. → CA/AT
		X2, Z2	201	

Item	Mode switch position		Job code	Key operation
	X1/Z1	X2/Z2		
Reading of UPCs whose sales amounts are zeros	X1	X1	107	
		X2	207	
Reading and resetting of PBLU file	X1, Z1	X1, Z1	180	
Reading and resetting of PBLU file by individual cashier	X1, Z1	X1, Z1	181	
Reading and resetting of a stacked report	X1, Z1	X1, Z1	190	 When Z of stacked report is initiated, X only reports will be skipped.
		X2, Z2	290	
Reading and resetting of the daily net totals		X2, Z2	270	

Non-accessed UPC deleting

Item	Mode switch position		Job code	Key operation
	X1/Z1	X2/Z2		
Reading of non-accessed UPCs	X1		105	
Deleting of non-accessed UPCs	Z1		105	

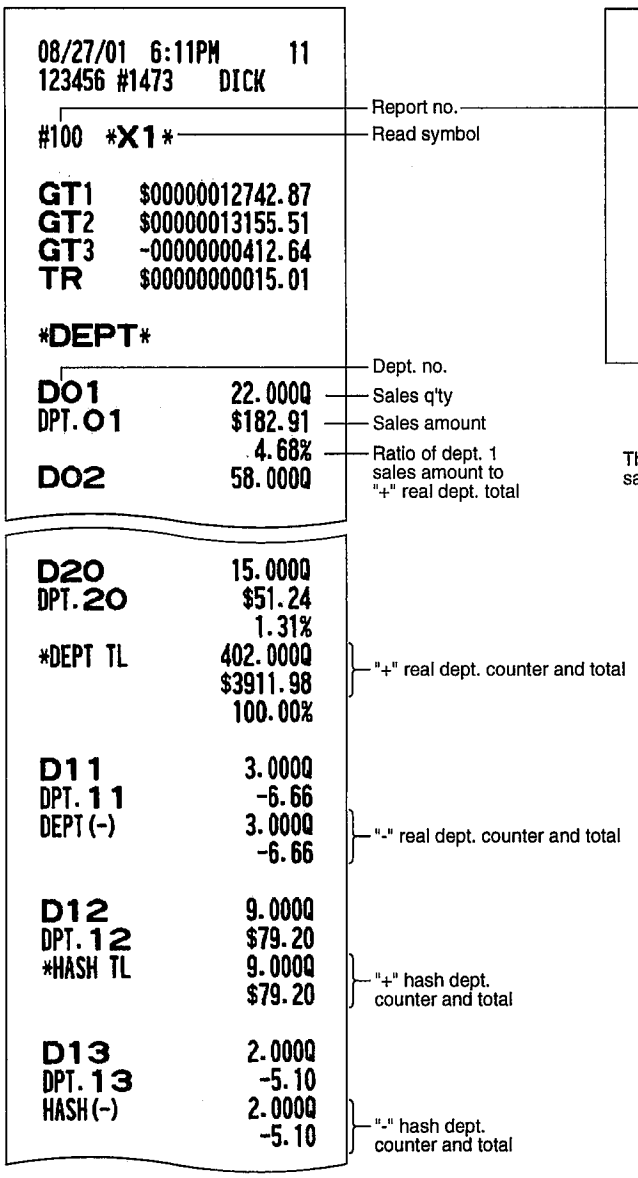
Note *When you execute the job #105 in Z1 mode, not only the sales data, but also the UPC code(s) (the related data files) themselves will be deleted.*

2 Daily sales totals

■ Full reading and resetting of sales totals

You can take X and Z reports in the X1/Z1 mode. The use of the decimal ([•]) key determines when the report will actually reset the totals.

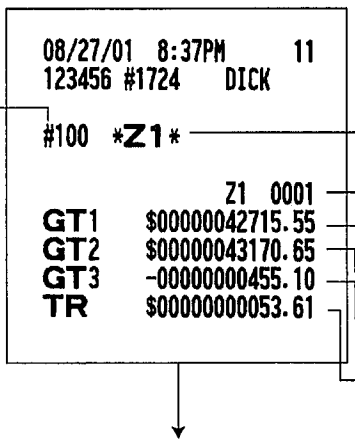
• **Sample X report**



Report no.
Read symbol
Dept. no.
Sales q'ty
Sales amount
Ratio of dept. 1 sales amount to "+" real dept. total
"+" real dept. counter and total
"-" real dept. counter and total
"+" hash dept. counter and total
"-" hash dept. counter and total

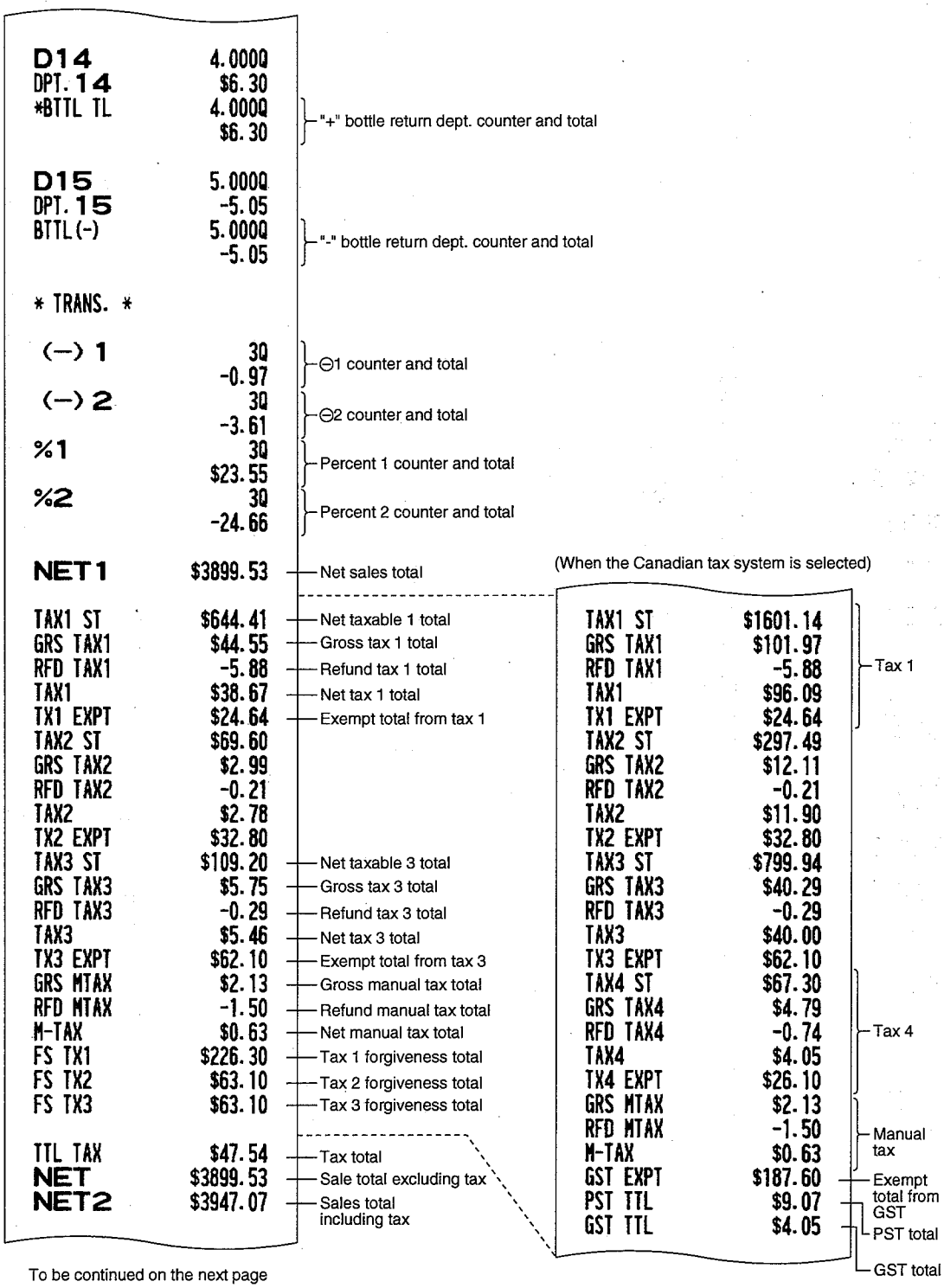
To be continued on the next page

• **Sample Z report**

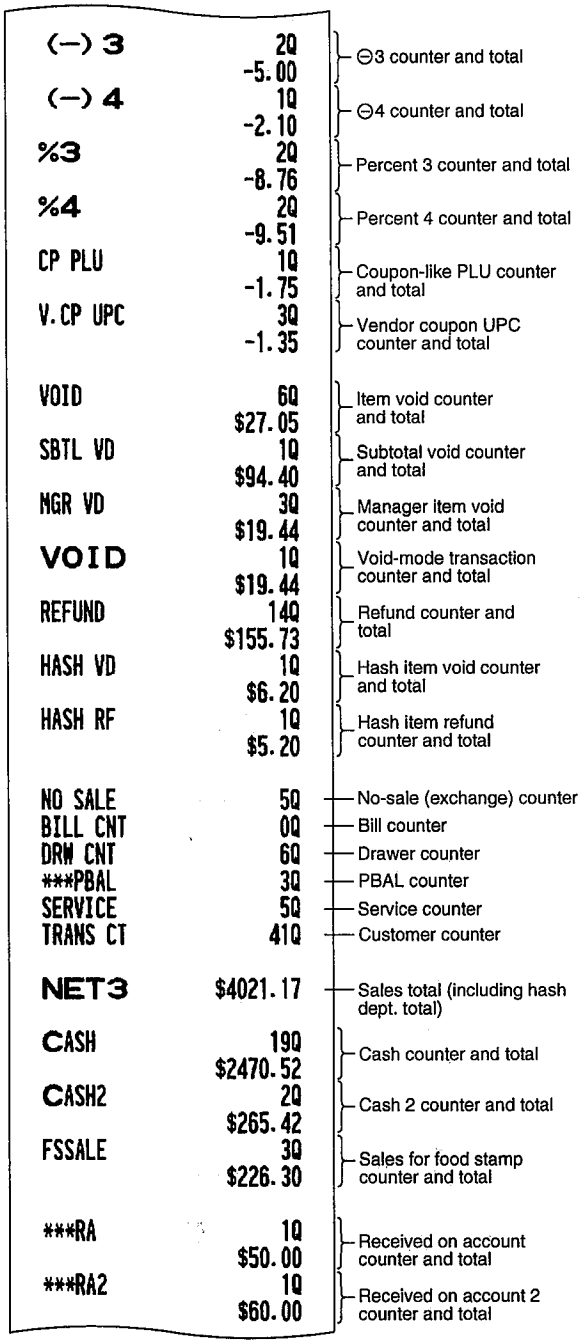


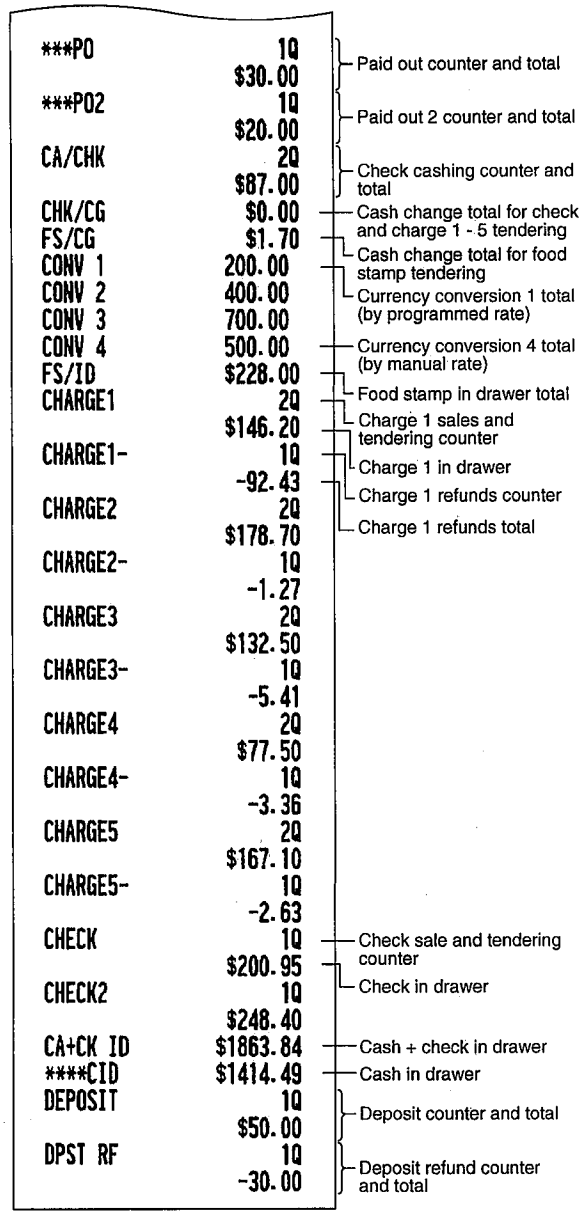
Reset symbol
Reset counter
Net grand total (GT2 - GT3)
Grand total of plus registration
Grand total of minus registration
Grand total of training mode registration

The subsequent printout occurs in the same format as in the X report.



To be continued on the next page





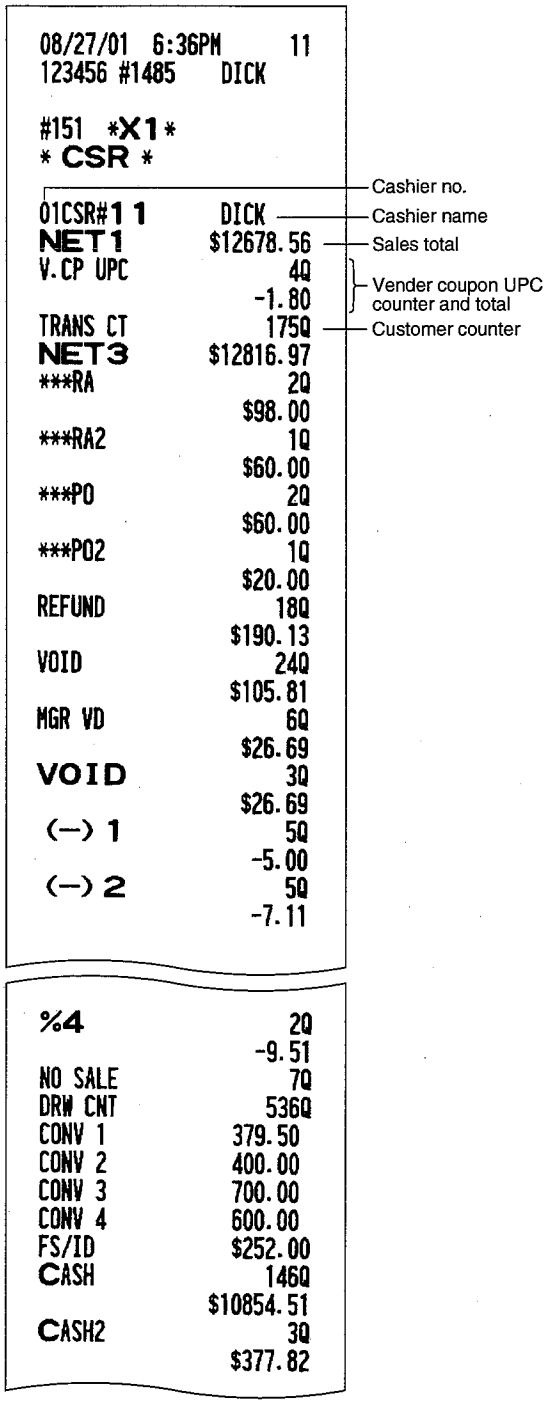
■ Cashier reading and resetting

Using this function, you can take X and Z reports for individual cashiers or all cashiers.

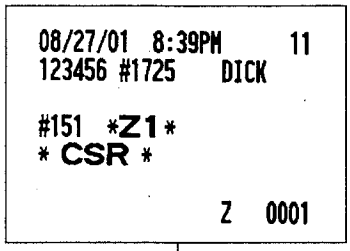
Individual cashier reading and resetting

Note *The OP X/Z-mode reading and resetting is allowed only when your machine has been programmed for "OP X/Z mode available" in the PGM2 mode.*

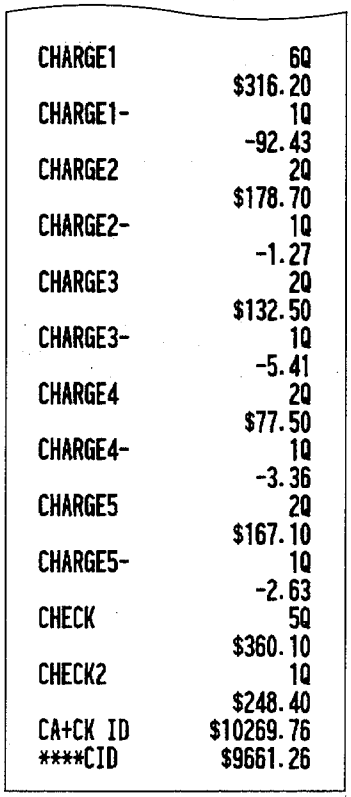
• Sample X report



• Sample Z report

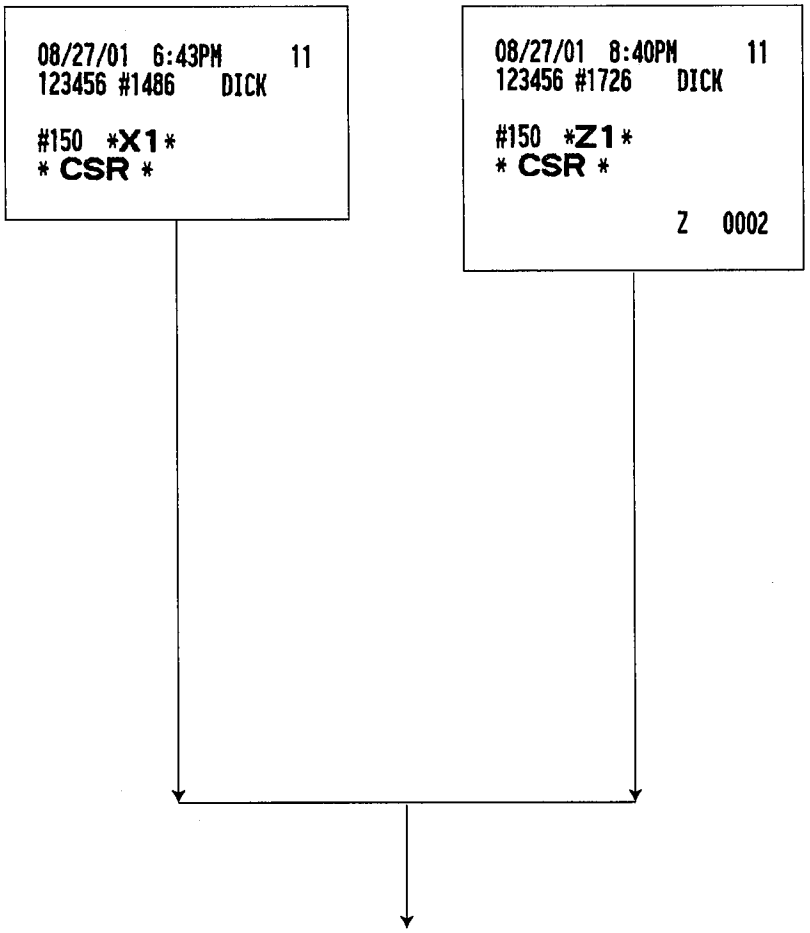


The subsequent printout occurs in the same format as in the sample X report.



* When you take these reports in the OP X/Z mode, the X report shows an "OP X" and the Z report shows an "OP Z".

Full cashier reading and resetting



The subsequent printout occurs in the same format as in the sample report shown in the previous page: and sales data for cashiers print in this sequence.

■ Reading and resetting of hourly sales information

You can take X and Z reports for sales totals and transaction (customer) counters for 48 half hours, or 24 hours. If both quantity and amount are zero, their print is skipped.

• **Sample X report**

```
08/27/01  6:43PM       11
123456 #1488     DICK

#160  *X1*
* HOURLY *

   9:00AM           19Q
                 $970.26
AVE.              $51.07
   9:30AM           21Q
                $1194.69
AVE.              $56.89
SUBTOTAL            40Q
                $2164.95

  10:00AM           19Q
                 $925.37
AVE.              $48.70
  10:30AM           33Q
                $1554.85
AVE.              $47.12
SUBTOTAL            52Q
                $2480.22
```

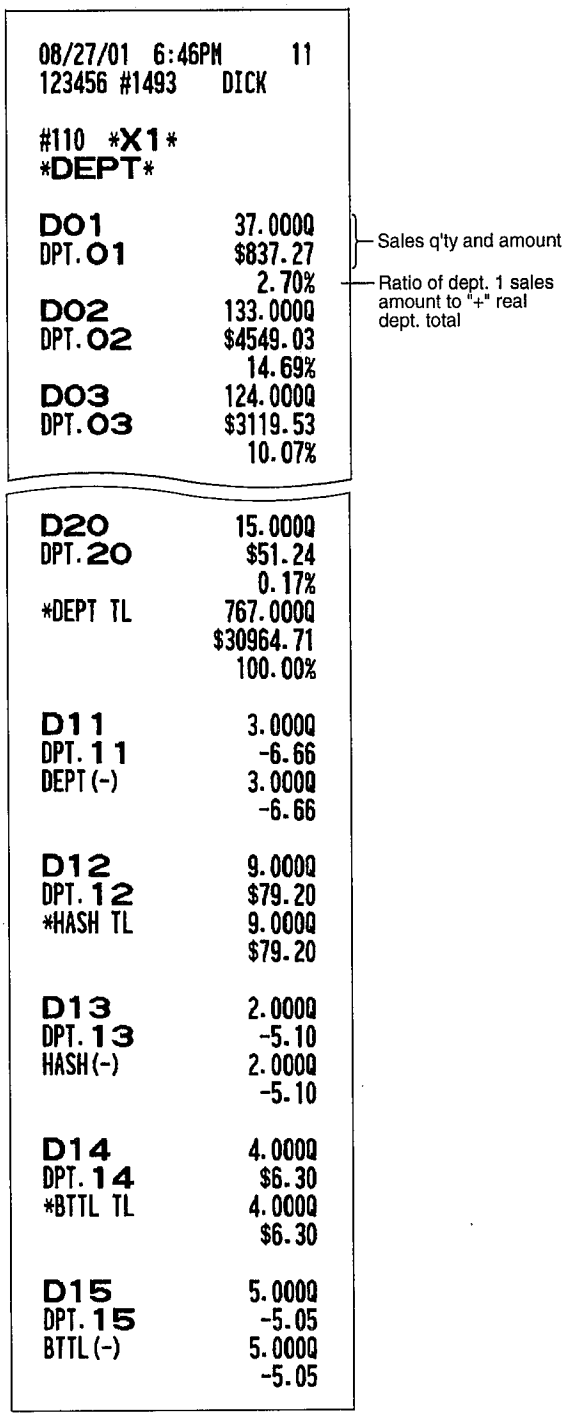
```
   5:00PM           46Q   ← Customer counter
                $4909.15   ← Sales total
AVE.              $106.72   ← Average sales amount per customer
   5:30PM           43Q      (sales total ÷ customer counter)
                $3312.73
AVE.              $77.04
SUBTOTAL            89Q
                $8221.88

   6:00PM           30Q
                $2581.65
AVE.              $86.06
   6:30PM           25Q
                $2121.00
AVE.              $84.84
SUBTOTAL            55Q
                $4702.65
```

• **Sample Z report**

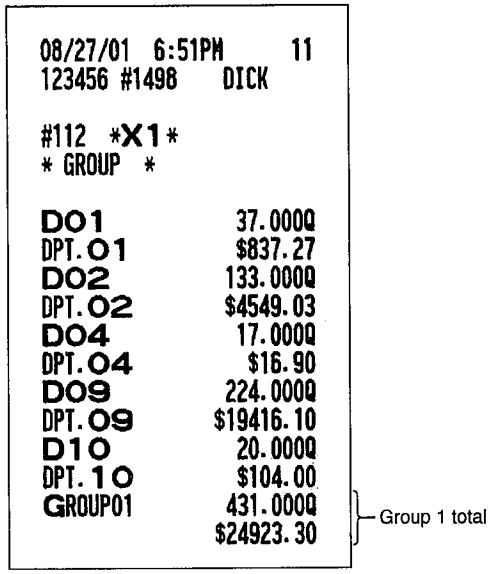
```
08/27/01  8:41PM       11
123456 #1727     DICK

#160  *Z1*
* HOURLY *

                  Z1  0001
```

The subsequent printout occurs in the same format as in the sample X report.

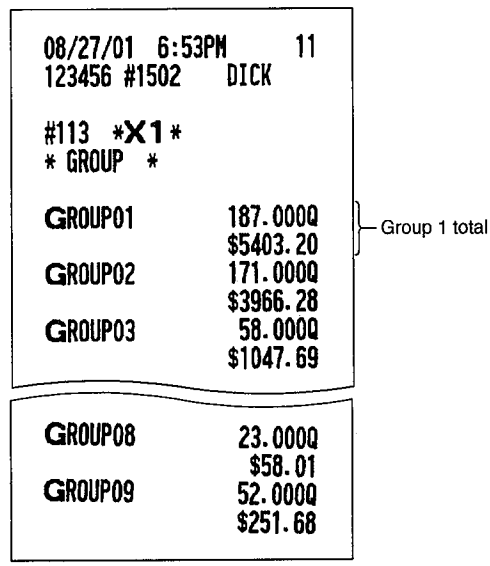
■ Full department reading



■ Individual group reading



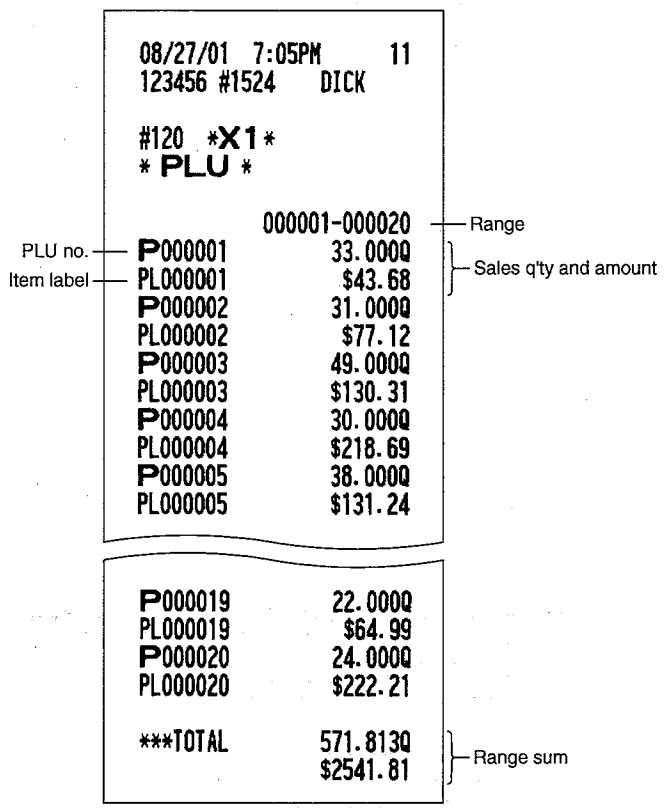
■ Full group reading



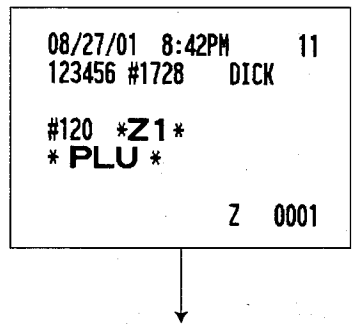
■ Reading and resetting of sales information for a range of PLUs/subdepartments

This function provides you with X and Z reports for sales information of a certain range of PLUs/subdepartments. You designate the start and end PLU/subdepartment number of the range. Of course, the range may represent all of the PLUs/subdepartments in your register.

• **Sample X report**



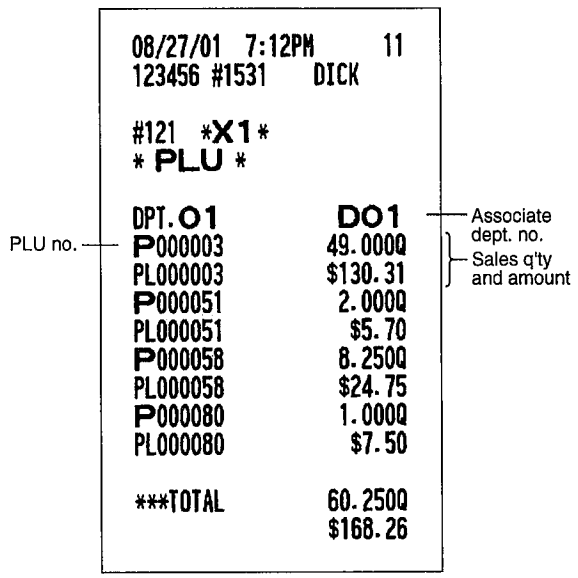
• **Sample Z report**



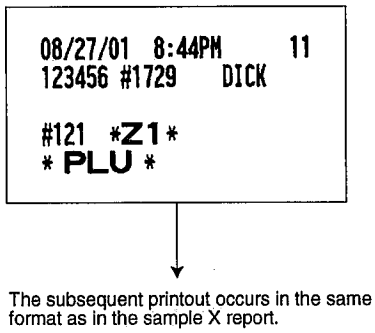
The subsequent printout occurs in the same format as in the sample X report.

■ Reading of sales information on PLUs/subdepartments associated with an individual department

• Sample X report

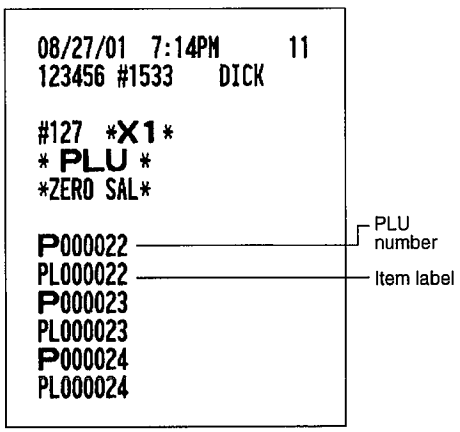


• Sample Z report

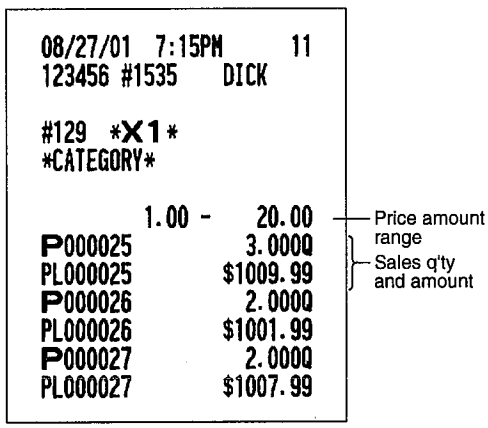


The subsequent printout occurs in the same format as in the sample X report.

■ Reading of sales information on PLUs/subdepartments whose sales amounts are zeros



■ Reading of sales information for the price amount range of PLUs/subdepartments



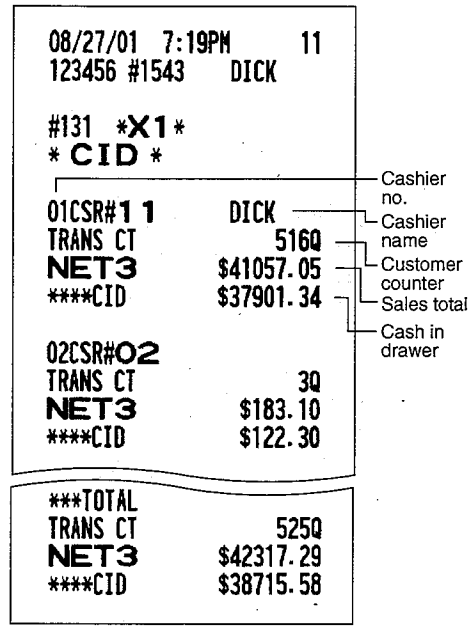
■ Transaction reading

```
08/27/01  7:18PM       11
123456 #1538     DICK

#130  *X1*
*  TRANS.  *
```

In this report the same transaction data as those printed when full reading is taken are printed.

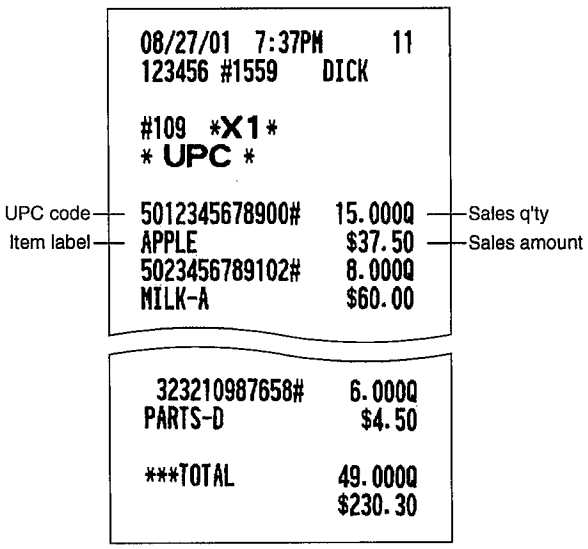
■ Cash in drawer reading

You can take full cashier X reports for cash in drawer.

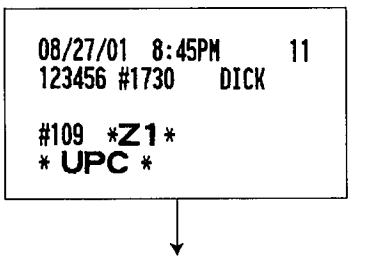


■ Reading and resetting of sales information for UPCs

• **Sample X report**



• **Sample Z report**



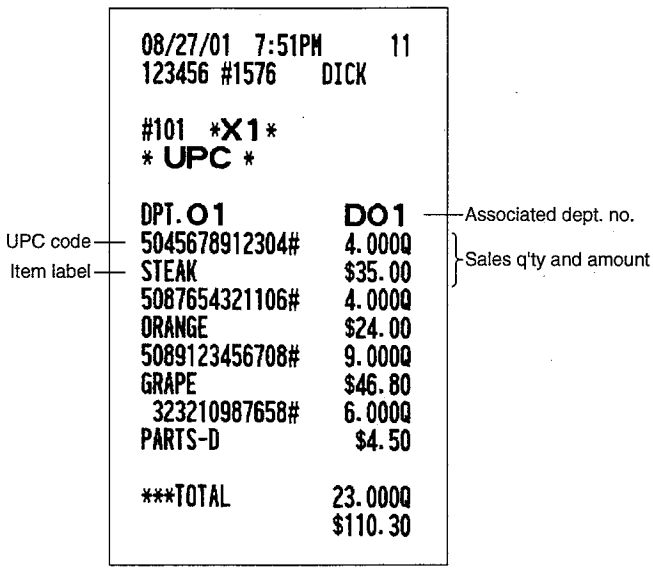
The subsequent printout occurs in the same format as in the sample X report.

Note *The UPC codes are printed out in the sequence shown below.*

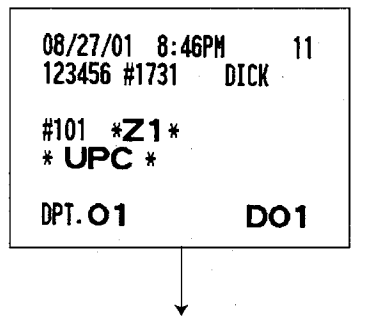
EAN-13
EAN-8
UPC-A
UPC-E

■ Reading and resetting of sales information for UPCs associated with an individual department

• Sample X report

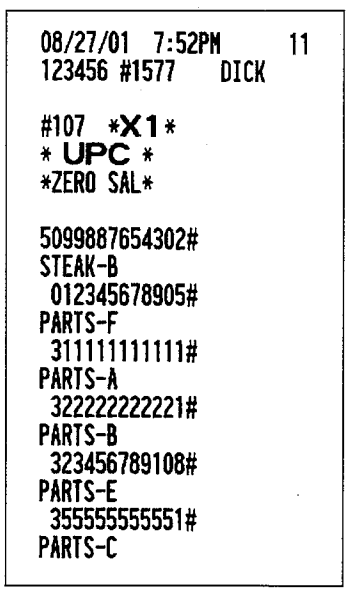


• Sample Z report

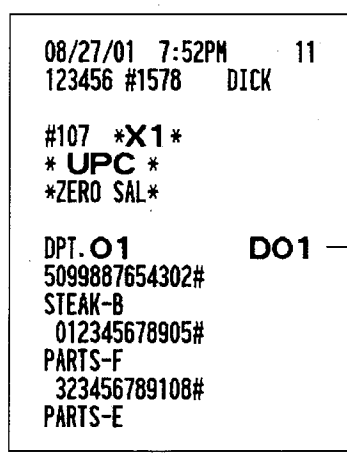


The subsequent printout occurs in the same format as in the sample X report.

■ Reading of UPCs whose sales amounts are zeros

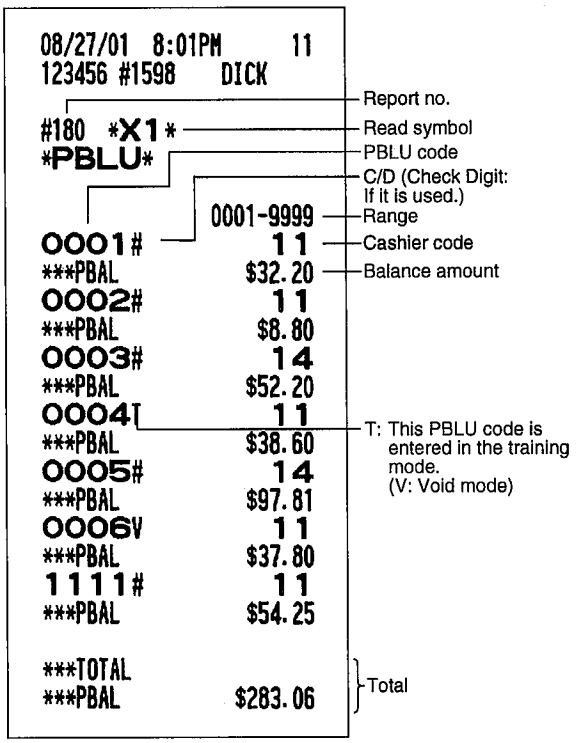


■ Reading of UPCs whose sales amounts are zeros (by associated department)

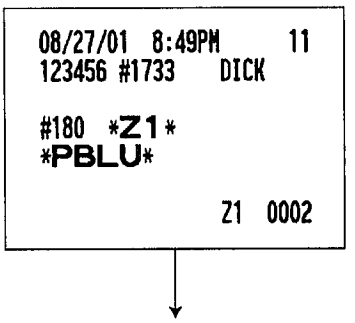


■ Reading and resetting of PBLU file

• Sample X report



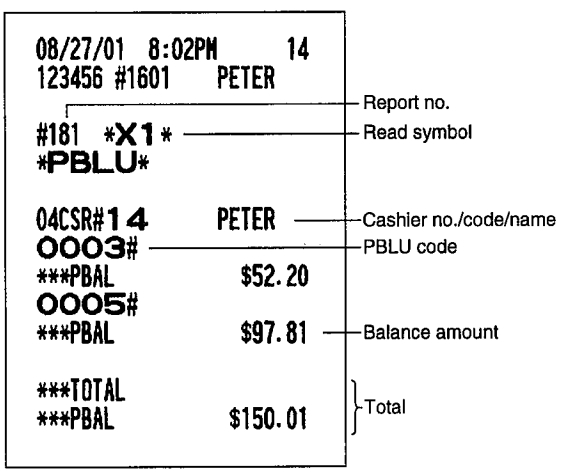
• Sample Z report



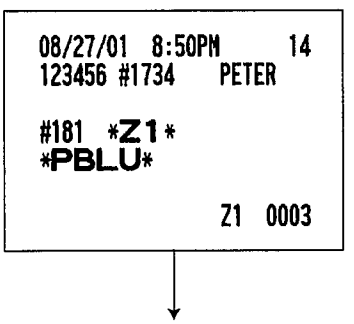
The subsequent printout occurs in the same format as in the sample X report.

■ Reading and resetting of PBLU file by individual cashier

• Sample X report



• Sample Z report



The subsequent printout occurs in the same format as in the sample X report.

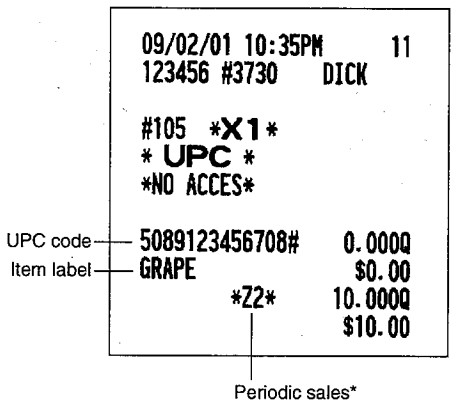
■ Reading and resetting of a stacked report

You can print multiple X1/Z1 reports in sequence at a time.
In this case, you need to program in advance what X1/Z1 reports should be printed.

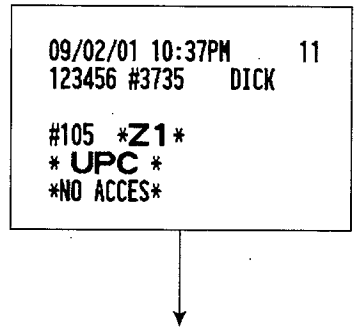
Note *The following job code numbers alone can be used for stacked report printing.*
Job code number: 100, 107, 109, 110, 113, 120, 127, 129, 130, 131, 150, 160, 180
Refer to "Selection of X1/Z1 and X2/Z2 reports to be printed in the stacked report sequence" for details.

■ Deleting of non-accessed UPCs

• Sample X report (Reading)



• Sample Z report (Deleting)



The subsequent printout occurs in the same format as in the sample X report.

*: When there is any sales data of the UPC for #209 report, the data is printed here.
When you delete the UPC in Z1 mode under the this situation, the data for #209 is also deleted.

3 Periodic consolidation

Your register allows you to take consolidation X and Z reports of a chosen period (normally one week or a month).

■ Overview

The periodic reading or resetting reports are the same in format as those in the X1/Z1 report for daily total except job code no. (#2xx) and mode indication ("X2" or "Z2".)

• **Sample X report**

```
08/27/01  9:21PM       11
123456 #1754    DICK

#200  *Z2*
```

Read symbol

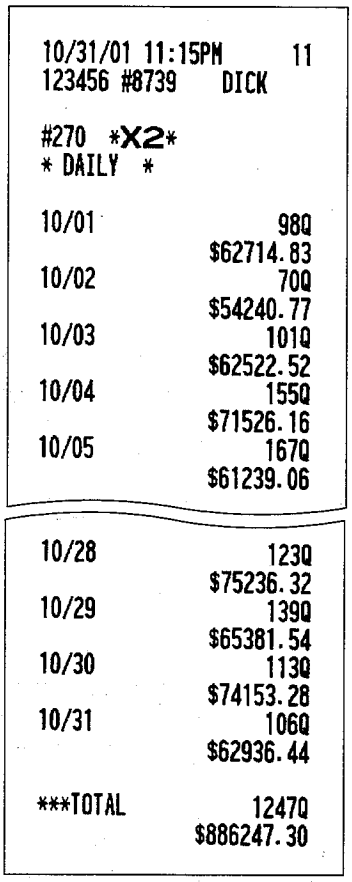
• **Sample Z report**

```
08/28/01 10:13PM       11
123456 #2632    DICK

#200  *Z2*
                    Z1  0015
                    Z2  0002
GT1      $00000042983.57
GT2      $00000043451.81
GT3      -00000000468.24
TR       $00000000053.61
```

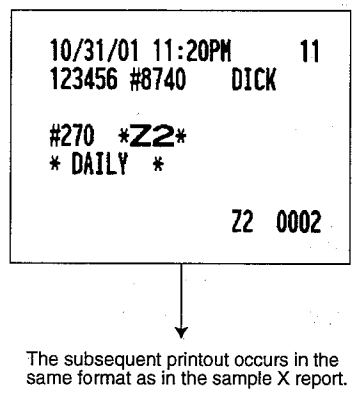
Reset symbol
Reset counter of daily total
Reset counter of periodic consolidation
Grand total

The subsequent printouts are the same in format as those in the X/Z report for daily total.

■ Reading and resetting of the daily net totals



```
10/31/01 11:15PM      11
123456 #8739    DICK

#270  *X2*
* DAILY  *

10/01                98Q
                $62714.83
10/02                70Q
                $54240.77
10/03               101Q
                $62522.52
10/04               155Q
                $71526.16
10/05               167Q
                $61239.06

10/28               123Q
                $75236.32
10/29               139Q
                $65381.54
10/30               113Q
                $74153.28
10/31               106Q
                $62936.44

***TOTAL           1247Q
               $886247.30
```



```
10/31/01 11:20PM      11
123456 #8740    DICK

#270  *Z2*
* DAILY  *

                Z2  0002
```

The subsequent printout occurs in the same format as in the sample X report.

■ Reading and resetting of a stacked report

You can print multiple X2/Z2 reports in sequence at a time.
In this case, you need to program in advance what X2/Z2 reports should be printed.

Note

The following job code numbers alone can be used for stacked report printing.
Job code number: 200, 207, 209, 210, 213, 220, 227, 229, 230, 231, 250, 270
Refer to "Selection of X1/Z1 and X2/Z2 reports to be printed in the stacked report sequence" for details.

OPERATOR MAINTENANCE

1 In case of power failure

When power is lost, the machine retains its memory contents and all information on sales entries.

- 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 after power recovery. (See the sample print.)

```
08/28/01  8:28PM        01
123456 #1174     DICK

DPT.02              $21.00
DPT.05              $36.00
========================
DPT.05              $36.00

CASH               $57.00
```

2 In case of printer error

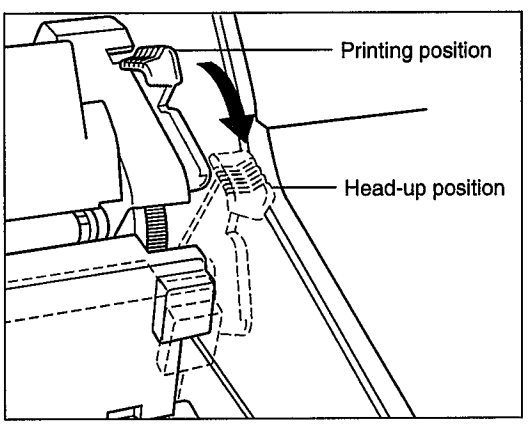
If the printer runs out of paper, the printer will stall, "PPPPPPPPPP" will appear on the display, and the register will start to continuously produce an intermittent beeping tone. Key entries will not be accepted. Referring to "5. Installing and removing the paper roll" in this chapter, install a new roll paper in the proper position, then press the [CL] key. The printer will print the power failure symbol and resume printing.

If the print head comes up, the printer stalls, "H" will appear on the very left of the display, and the register will start to continuously produce an intermittent beeping tone. Key entries will not be accepted. Bring back the print head to the correct position, then press the [CL] key. The printer will print the power failure symbol and resume printing.

3 Thermal printing

Your register prints by means of thermal printing. The print head applies heat to thermal paper which is chemically treated to change color when heated to a certain level. This creates the printed text.

■ Cautions in handling the printer



- If you are not going to use the register for an extended period of time, pull the print head release lever toward you so that the print head is set apart from the plate.

- Avoid the following environments:
  Excessively dusty and humid places
  Excessive direct sunlight
  Iron powder (A permanent magnet and electromagnet are used in this machine.)
- Use the print head release lever only when necessary.
- Never pull the paper when it is in contact with the print head. First release the head with the print head release lever, and then remove the paper.
- Never touch the surface of the print head.
- Never touch around the print head and the motor during printing or before they have had sufficient time to cool.

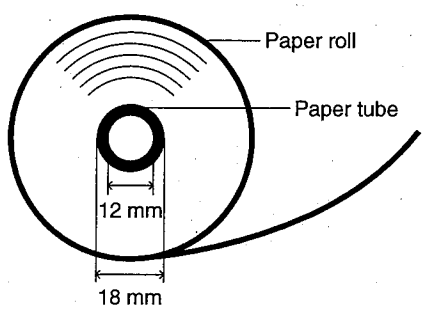
■ Cautions in handling the recording paper (thermal paper)

- Use only the paper specified by SHARP.
- Do not unpack the thermal paper until you are ready to use it.
- Avoid excessive heat. The paper will color at around 70°C.
- Avoid dusty and humid places for storage. Avoid direct sunlight.
- The printed text on the paper can discolor under the following conditions:
  Exposure to high humidity and temperature
  Prolonged exposure to the direct sunlight
  Contact with glue, thinner or a freshly copied blueprint.
  Heat caused by friction from scratching or other such means.
  Contact with a rubber eraser or adhesive tape.
- Be very careful when handling the thermal paper. If you want to keep a permanent record, copy the printed text with a photocopier.

4 Paper roll near-end sensing function (only for the journal paper) <option>

When the journal paper roll comes near the end or is not loaded, the machine senses this condition and sounds an alarm, displaying the error code "E04". At this time, clear the alarm with the CL key and replace the paper roll as soon as possible. The following entry can be made after clearing the alarm. However, since this function works each time one transaction is completed, the alarm sound will be emitted again as the following transaction is completed unless the paper roll is replaced.
If you want to use this function, consult your dealer.

- The sensing position depends upon the size of the paper tube. Therefore, it is advisable to use paper rolls - whose paper tube is 18 mm in O.D. and 12 mm in I.D. - specified by SHARP.
- If sensing occurs too early or late, contact your dealer.



5 Installing and removing the paper roll

■ 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

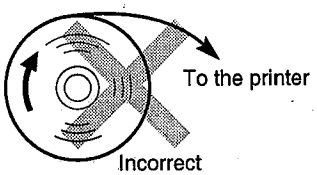
Paper width:	1.75 ± 0.02 in. (44.5 ± 0.5 mm)
Max. outside diameter:	3.15 in. (80 mm)
Quality:	Thermal paper
Paper tube:	0.71 in. (18 mm)

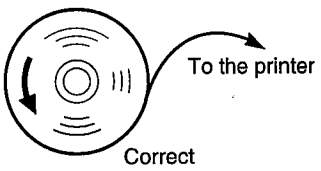
- **Be sure to set paper roll(s) prior to using your machine, otherwise it may cause a malfunction.**

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

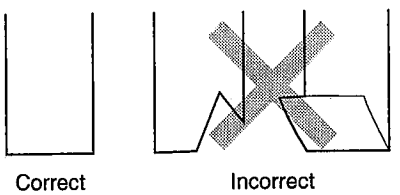
Note *If the top end of the paper roll is fixed with paste or tape, the paper may lose its color development ability in the pasted or taped area due to the deterioration of the heat-sensitive color development component of the paper surface. This may result in nothing appearing at this location when printing is performed. Therefore, when setting a new paper roll in the machine, be sure to cut off approximately one revolution (approx. 25 cm long).*

(How to set the paper roll)



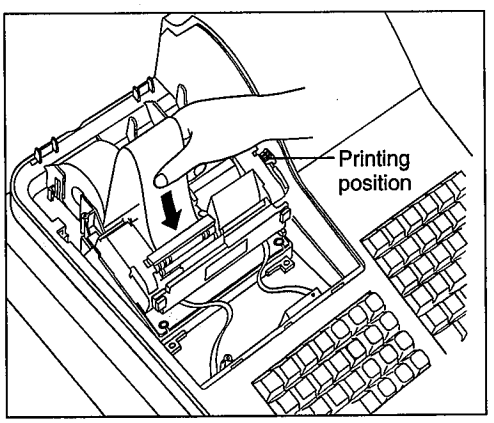


(How to cut the paper end)



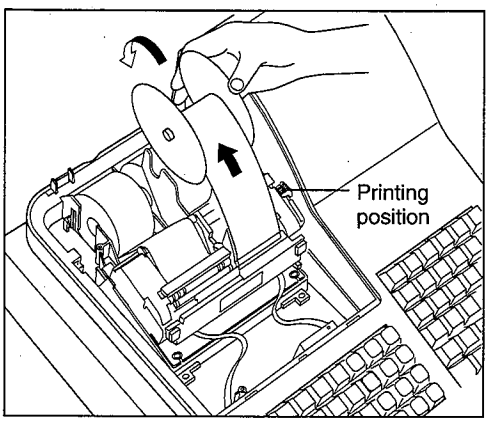
■ Installing the paper roll

Installing the receipt paper roll



1. Turn the mode switch to the "REG" position with the AC cord connected.
2. Remove the printer cover.
3. Check that the print head release lever is in its printing position.
4. Set the paper correctly as illustrated above in the receipt side of the printer.
5. Insert the end of the paper into the paper chute as shown on the left. It will automatically be fed through the printer.
6. Cut off the excess paper that comes out of the printer with the manual cutter.
7. Replace the printer cover.

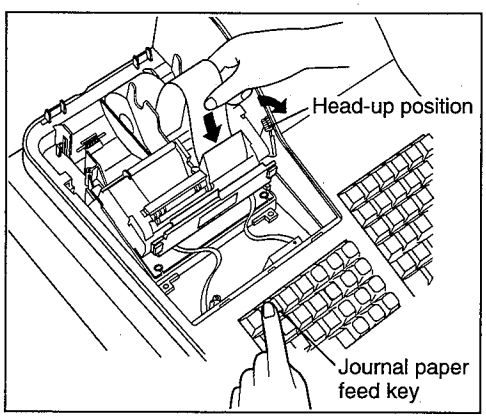
Installing the journal paper roll



1. Turn the mode switch to the "REG" position with the AC cord connected.
2. Remove the printer cover.
3. Check that the print head release lever is in its printing position.
4. Set the paper correctly as illustrated on the previous page in the journal side of the printer.
5. Insert the end of the paper into the paper chute as shown on the left. It will automatically be fed through the printer.
6. Insert the end of the paper into the slit in the paper take-up spool. (Press the [JOURNAL] key to feed more paper through if required.)
7. Wind the paper two or three turns around the spool shaft.
8. Set the spool on the bearing.
9. Replace the printer cover.

Note

- When it is difficult to insert paper into the paper chute, try inserting it again by following the steps described below.



In case of inserting the journal paper roll

1. Cut off the end of paper in a single straight cut.
2. Pull the print head release lever toward you to lift up the print head.
3. Insert the end of paper into the paper chute, while pressing the corresponding paper feed key ([JOURNAL] key or [RECEIPT] key).
4. When the end of paper comes out of the printer, release the feed key and return the print head release lever to its original position.
5. Press the feed key to feed more paper.

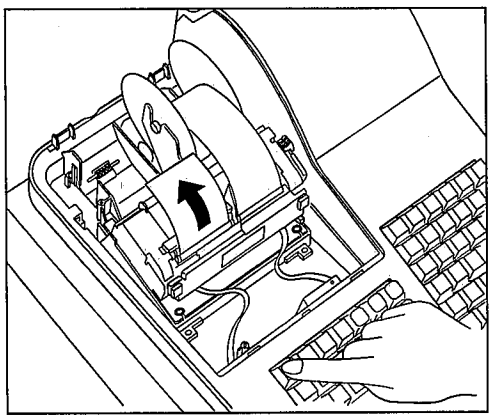
- When you want to manually install a new roll of paper while your machine is turned off, follow the steps shown below:

1. Pull the print head release lever toward you to lift up the print head.
2. Correctly place the new paper roll into the receipt/journal paper roll location.
3. Insert the paper end into the paper chute until it comes out of the printer.
4. Cut or roll the paper onto the take-up spool as described for automatic installation.
5. Return the print head release lever to its original position.

■ Removing the paper roll

When a red dye appears on the paper roll, it is time to replace the existing paper roll. Replace the paper roll with a new one. If you plan not to use your register for an extended period of time, remove the paper roll, and store it in the appropriate place.

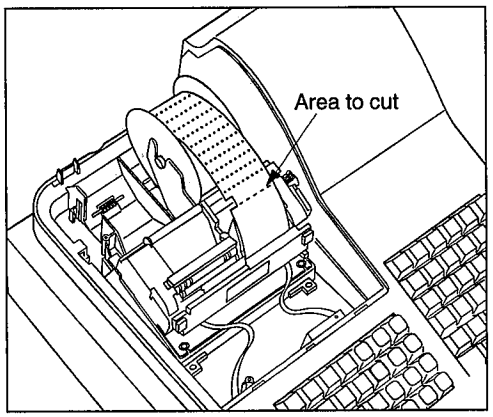
Removing the receipt paper roll



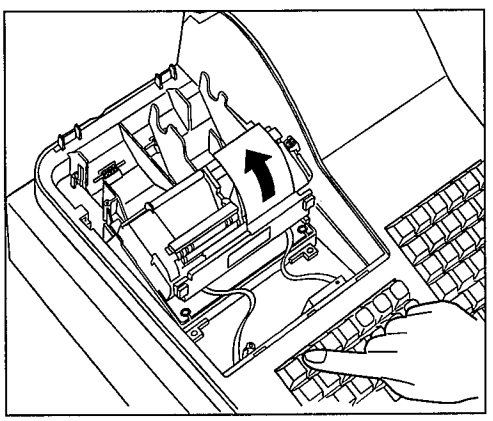
1. Remove the printer cover.
2. Cut the paper behind the printer and near the paper roll.
3. Press the [RECEIPT] key until the paper remaining in the printer comes out completely.
4. Remove the paper roll from the back of the printer.

Note *Do not pull the paper through the printer.*

Removing the journal paper roll

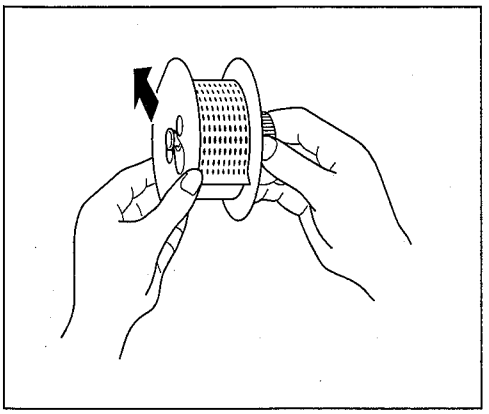


1. Remove the printer cover.
2. Press the [JOURNAL] key to advance the journal paper until its printed part is out of the way.
3. Cut the paper and remove the take-up spool.

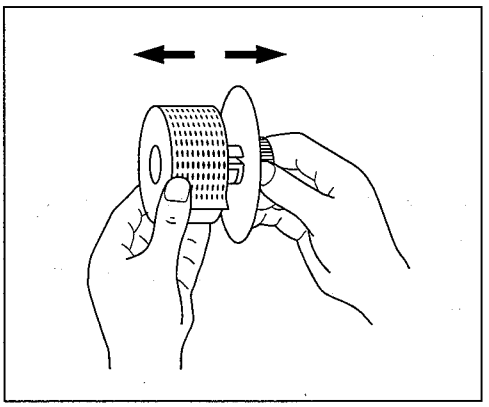


4. Cut the paper behind the printer and near the paper roll.
5. Press the [JOURNAL] key until the paper remaining in the printer comes out completely.
6. Remove the paper roll from the back of the printer.

Note *Do not pull the paper through the printer.*



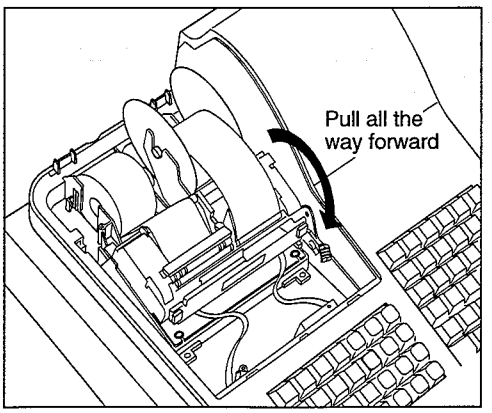
7. Remove the outer side of the take-up spool as shown on the left.



8. Remove the printed journal roll from the take-up spool.

■ Removing a paper jam

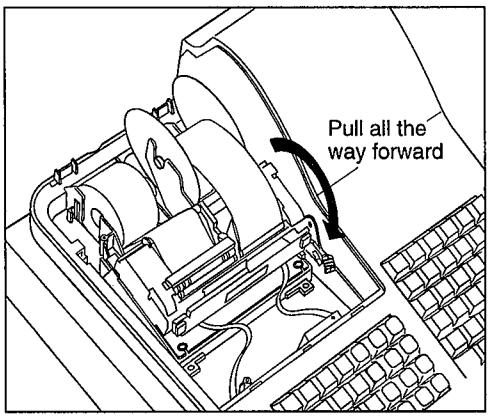
Precaution: Be very careful with the manual cutter to avoid cutting yourself. Never touch the print head immediately after printing, because the head may still be hot.



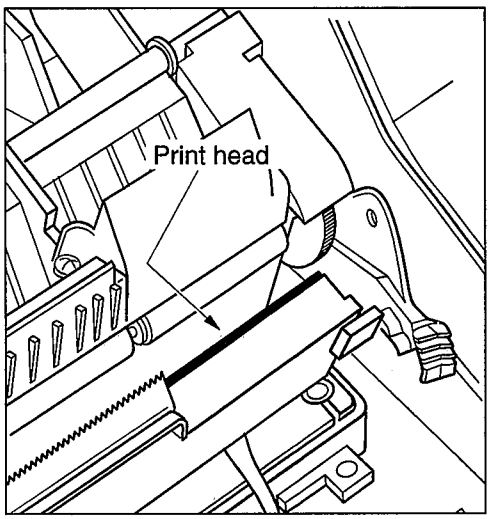
1. Remove the printer cover.
2. Pull the print head release lever all the way forward (after it stops at one position, continue pulling forward until it stops again and cannot be pulled forward any further).
3. Remove the paper jam. Check for and remove any shreds of paper that may remain in the printer.
4. Reset the paper roll correctly by following the steps in "Installing the paper roll".
5. Return the print head release lever to its original position.
6. Replace the printer cover.

6 Cleaning the print head

When the printed text is getting dark or faint, paper dust may be stuck to the print head. Clean the print head as follows:



1. Turn the mode switch to the "OFF" position and remove the AC power.
2. Remove the printer cover.
3. Pull the print head release lever all the way forward (after it stops at one position, continue pulling forward until it stops again and cannot be pulled forward any further).

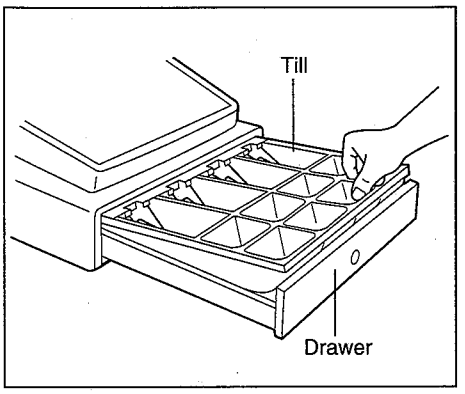


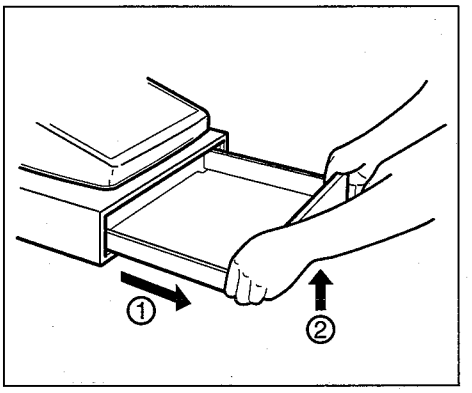
4. Clean the print head with a soft rag moist with ethyl alcohol or isopropyl alcohol.
5. Return the print head release lever to its original position immediately after cleaning.
6. Replace the printer cover.

Precautions:
Never touch the print head with a tool or anything hard as it may damage the head.

7 Removing the till and the drawer

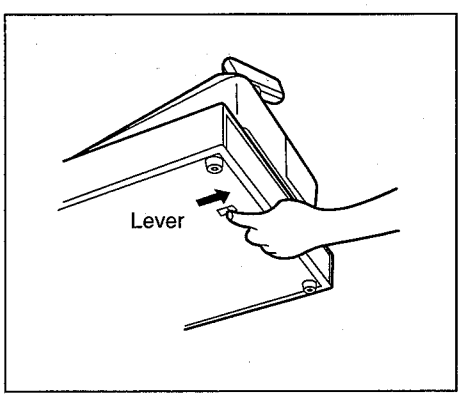
The till in the register is removable. After closing your business for the day, remove the till from the drawer and keep the drawer open. To remove the drawer, pull it forward fully with the till removed, and remove it by lifting it up.





8 Opening the drawer by hand

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



9 Before calling for service

The malfunctions shown in the left-hand column below, labelled "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 electrical 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 a 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 receipt function in the "OFF" status? • Is the print head release lever at the printing position?
(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 print head release lever at the printing position? • Is the paper roll properly installed?

■ Error code table

When the following error codes are displayed, press the [CL] key and take a proper action according to the table below.

Error code	Error status	Action
E01	Registration error	Make a correct key entry.
E02	Misoperation error	Make a correct key entry.
E03	Undefined code is entered.	Enter a correct code, or declare it by the programming.
E04	Journal paper is nearly empty.	Replace a journal paper roll with a new one.
E05	Secret code error	Enter a correct secret code.
E07	Memory is full.	Expand the file within a capacity of memory.
E08	Insert slip paper.	Insert slip paper.
E09	Invalid cashier code is entered.	Enter a correct cashier code.
E11	Compulsory depression of the [SBTL] key for direct finalization	Press the [SBTL] key and continue the operation.
E12	Compulsory tendering	Make a tendering operation.
E13	Compulsory of PBLU entry	Make a PBLU entry.
E16	Check digit error	Enter a correct code.
E31	Compulsory non-add code entry	Enter a non-add code.
E32	No entry of your cashier code	Make a cashier code entry.
E33	The current cashier code should not be changed.	Change a cashier after finalizing the transaction.
E34	Overflow limitation error	Make a registration within a limit of entry.
E35	The open price entry is inhibited.	Make a preset price entry.
E36	The preset price entry is inhibited.	Make an open price entry.
E37	The direct finalization is inhibited.	Make a tendering operation.
E38	Read error of scale	
E67	Registration buffer is full.	
E76	The drawer is still opened.	Close the drawer.
E77	Price shift error	
E79	Reading of undefined vendor coupon UPC	
E94	Age verification error	

LIST OF OPTIONS

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

- RAM memory chip model ER-03RA
- Remote drawer model ER-04DW
- Till model ER-48CC2
- 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-11DK7G: 30 regular size dummy key kits
  ER-51DK7G: 10 5 x 1 size dummy key kits
- Hand scanner model ER-A6HS1

SPECIFICATIONS

Model:	ER-A450T	
Dimensions:	16.5 (W) x 16.8 (D) x 11.5 (H) in. (420 (W) x 427 (D) x 292 (H) mm)	
Weight:	27.6 lbs (12.5 kg)	
Power source:	Local voltage ± 10% AC, 50/60Hz	
Power consumption:	Stand-by 14W	
	Operating 37W (max.)	
Working temperature:	32 to 104 °F (0 to 40 °C)	
Electronics:	LSI (CPU) etc.	
Built-in battery:	Rechargeable battery, memory holding time about 1 month	
	(with fully charged built-in battery, at room temperature)	
Display:		
Operator display:	7-segment display (10 positions)	
Customer display:	7-segment display (7 positions)	
Printer:		
Type:	2-station thermal printer	
Printing speed:	Approx. 13.3 lines/second	
Printing capacity:	24 digits each for receipt and journal paper	
Other functions:	• Graphic logo printing function	
	• Logo message function	
	• Receipt (ON-OFF) function, journal selective function	
	• Receipt and journal independent paper feed function	
Paper roll:	Width: 1.75 ± 0.02 in. (44.5 ± 0.5 mm)	
	Max. diam.: 3.15 in. (80 mm)	
	Quality: Hight quality (0.06 to 0.08 mm thickness)	
Cash drawer:	4 slots for bill and 8 for coin denominations	
Accessories:	Manager key	2
	Submanager key	2
	Operator key	2
	Drawer lock key	2
	Bill separator	1
	Paper roll	2
	Take-up spool	1
	Fixing angle bracket	1
	Instruction manual	1 copy

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

SHARP®

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