SHARP®

ELECTRONIC CASH REGISTER

MODEL

ER-A450S

INSTRUCTION MANUAL

CAUTION:

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

CAUTION:

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

VORSICHT:

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

ATTENTION:

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

AVISO:

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

VARNING:

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

CAUTION:

For a complete electrical disconnection pull out the mains plug.

VORSICHT:

Zur vollständigen elektrischen Trennung vom Netz den Netzstecker ziehen.

ATTENTION:

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

AVISO:

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

VARNING:

För att helt koppla från strömmen, dra ut stickproppen.

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

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

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

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

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

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

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

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

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

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

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

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

INTRODUCTION

Thank you very much for your purchase of the SHARP Electronic Cash Register, Model ER-A450S.
Please read this manual carefully before operating your machine in order to gain full understanding of functions and features.
Please keep this manual for future reference. It will help you, if you encounter any operational problems.

IMPORTANT

- **Install your register in a location that is not subject to direct sunlight, unusual temperature changes, high humidity or exposure to water sources and keep away from heat and magnetic sources.**
  Installation in such locations could cause damage to the cabinet and the electronic 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 (Official (nominal) voltage).**
  Other electrical devices on the same electrical circuit could cause the register to malfunction.
- **If the register malfunctions, call your local dealer for service - do not try to repair the register yourself.**
- **For a complete electrical disconnection, pull out the mains plug.**

PRECAUTION

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

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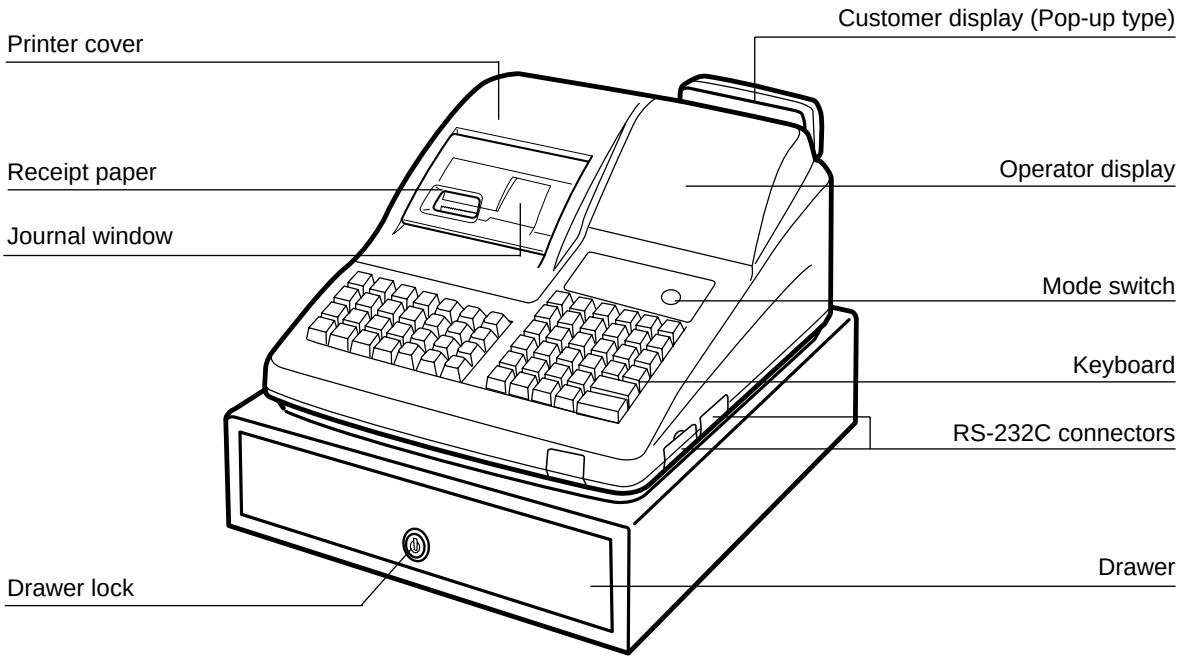
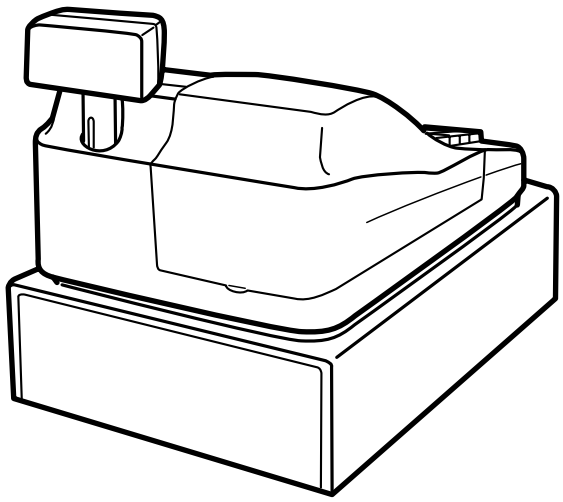
EXTERNAL VIEW

■ Front view



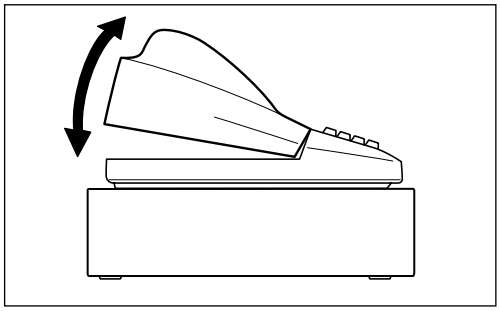
■ Rear view



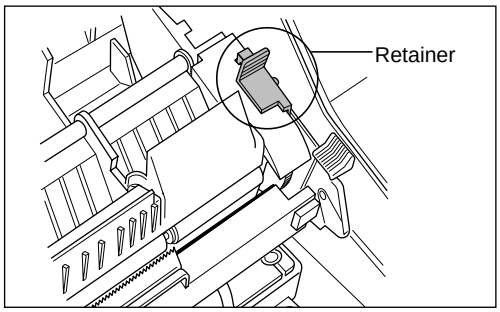
PRINTER

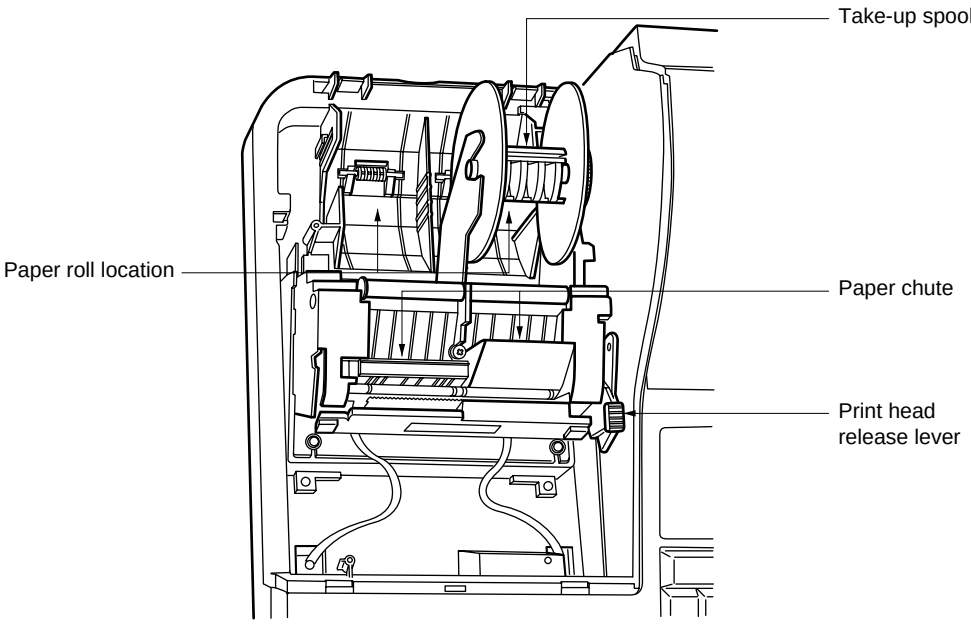
The printer is a receipt/journal dual station type thermal printer, and therefore it does not require any type of ink ribbon or cartridge. The average life of the printer is approximately 5 million lines.

When removing the printer cover, lift up its rear. When installing the printer cover, hook it on the pawls on the cabinet and shut it.



Your register is shipped with the print head release lever held by a white retainer in the lifted up position. 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.





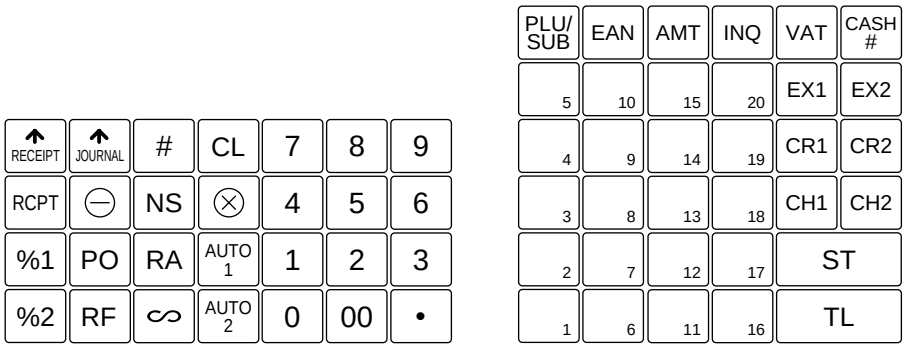
Print head release lever

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 move the head farther forward, you can pull the lever even further 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, consult your dealer.*

- RECEIPT — Receipt paper feed key
- JOURNAL — Journal paper feed key
- 0 ~ 9, 00 — Numeric keys
- • — Decimal point key
- ⊗ — Multiplication/split-pricing key
- CL — Clear key
- 1 ~ 20 — Department keys
- PLU/SUB — Price lookup/subdepartment key
- AMT — Amount entry key
- EAN — EAN code entry key
- INQ — EAN inquiry key
- VAT — Value added tax key
- # — Non-add code key
- CASH # — Cashier code entry key
- RCPT — Receipt print key
- ⊖ — Discount key
- AUTO 1, AUTO 2 — Automatic sequencing 1 and 2 keys
- %1, %2 — Percent 1 and 2 keys
- NS — No-sale key
- RA — Received-on-account key
- PO — Paid-out key
- RF — Refund key
- ∽ — Void key
- EX1, EX2 — Foreign currency exchange 1 and 2 keys

CR1
CR2
Credit 1 and 2 keys

CH1
CH2
Cheque 1 and 2 keys

ST
Subtotal key

TL
Total (cash total) key

* 000
Numeric key

* 21 ~ * 50
Department keys

* %3
* %4
Percent 3 and 4 keys

* ⊖2 ~ * ⊖4
Discount 2 through 4 keys

* GC COPY
Guest check copy key

* AUTO 3 ~ * AUTO 10
Automatic sequencing 3 through 10 keys

* RA2
Received-on-account 2 key

* PO2
Paid-out 2 key

* CR3
* CR4
Credit 3 and 4 keys

* CA2
Cash total 2 key

* EX3
* EX4
Foreign currency exchange 3 and 4 keys

* CH3
* CH4
Cheque 3 and 4 keys

* VAT SHIFT
Value added tax shift key

* DIFFER ST
Difference subtotal key

* 1/2
1/2 key

* CLERK #
Clerk code entry key

* 1 ~ * 68
Direct price lookup/subdepartment keys

* DEPT #
Department code entry key

* NON DELETE
Non delete key

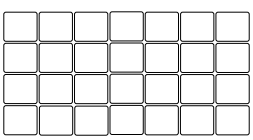
* PRICE CHANGE
Price change key

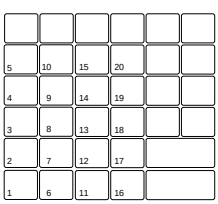
* REPEAT
Repeat entry key

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 41 and 49.
This layout can be changed by your dealer.

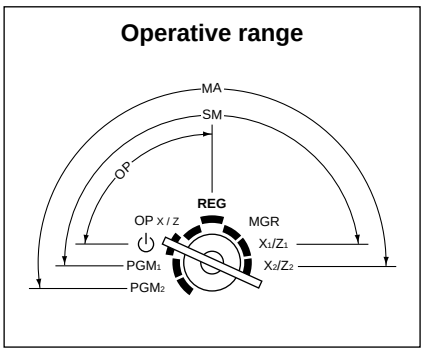


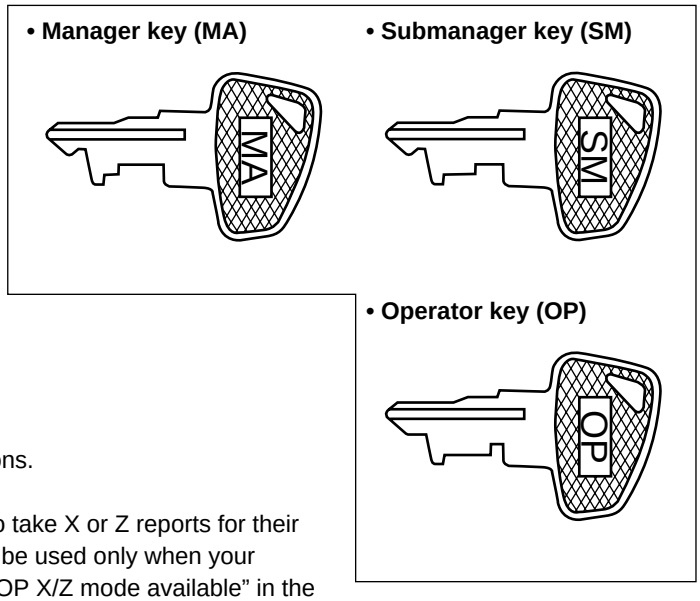


KEYS AND SWITCHES

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 " ⏻ " position.





The mode switch has these settings:

⏻ : This mode locks all register operations.
No change occurs to register data.

OP X/Z: This setting allows cashiers/clerks 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.) 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 EANs, and percentages

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

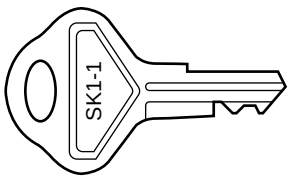
MGR: For manager's and submanager's entries
The manager can use this mode to make entries that are not permitted to be made by cashiers - for example, after-transaction voiding and override entry.

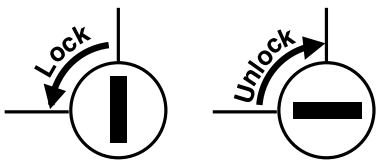
X1/Z1: To take the X/Z report for various daily totals

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

2 Drawer lock key

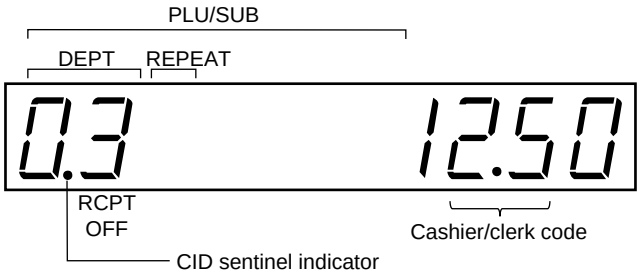
This key locks and unlocks the drawer. To lock it, turn 90 degrees counterclockwise. To unlock it, turn 90 degrees clockwise.





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).
Clerk code: Appears in the second and third positions (two digits) with "C" in the fifth position.
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 second to sixth positions (using 24-hour format) in the OP X/Z, REG, or MGR mode. In the REG, or MGR mode, press the [#] key to display the time.

■ Machine state symbols

P : Appears in the tenth place during programming.
E : Appears in the tenth place when an error is detected.
– (Floating): Appears when a minus department, PLU/subdepartment or EAN entry is made or when a discount, refund, or void entry is made.
o : Appears in the tenth place when the subtotal is displayed or when the amount tendered is smaller than the sale amount.
c : Appears in the tenth place when the [EX1] through [EX4] key is pressed to calculate a subtotal in foreign currency.
F : Appears in the tenth place when a transaction is finalized by pressing the [TL], [CA2], [CH1] through [CH4], or [CR1] through [CR4] key.
C : Appears in the tenth place when the change due amount is displayed or when the cash/cheque declaration is compulsory.
u : Appears in the tenth place when the [∞] 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 codes, PLU codes or subtotals are displayed. Also appears when a subtotal void is made.
• : 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.
Also appears right below the eighth place when the VAT shift is effective.

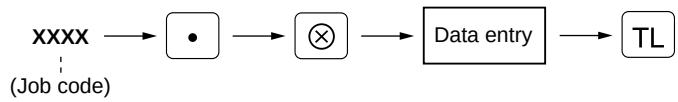
PRIOR TO PROGRAMMING

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.

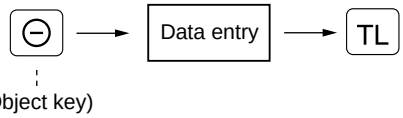
Job-Code-Based Programming

Simplified procedure



Direct Programming

Sample procedure



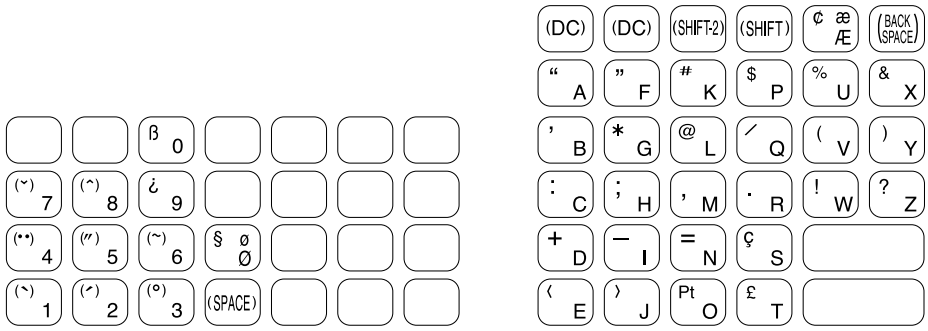
2 How to program alphanumeric characters

You can program alphanumeric characters for departments, PLUs, EANs 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.]

[# K] —
- To enter the letter “#”, press (SHIFT-2) [# K]
- To enter the upper-case letter “K”, press [# K]
- To enter the lower-case letter “k”, press (SHIFT) [# K]

• Numerals, letters and symbols are programmable simply by pressing the corresponding 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 corresponding 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”, “Ø” and “Æ”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 corresponding 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

• Numerals, letters and symbols are programmable by entering character codes and the [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 character 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

Code	Character
001	á
002	â
003	ê
004	î
005	ì
006	í
007	ô
008	ó
009	û
010	ú
011	œ
012	ű
013	ú
014	ő
015	ó
016	Λ
017	Ψ
018	Γ
019	¨
020	Ω
021	Δ
022	Θ
023	Ξ
024	Π
025	Σ
026	Y
027	Φ
028	Ű
029	Ú
030	Ő
031	Ó
032	(space)
033	!
034	”
035	#
036	$
037	%
038	&
039	’
040	(
041	)
042	*
043	+
044	,
045	-

Code	Character
046	.
047	/
048	0
049	1
050	2
051	3
052	4
053	5
054	6
055	7
056	8
057	9
058	:
059	;
060	<
061	=
062	>
063	?
064	@
065	A
066	B
067	C
068	D
069	E
070	F
071	G
072	H
073	I
074	J
075	K
076	L
077	M
078	N
079	O
080	P
081	Q
082	R
083	S
084	T
085	U
086	V
087	W
088	X
089	Y
090	Z

Code	Character
091	Ä
092	Ö
093	Ü
094	^
095	_
096	'
097	a
098	b
099	c
100	d
101	e
102	f
103	g
104	h
105	i
106	j
107	k
108	l
109	m
110	n
111	o
112	p
113	q
114	r
115	s
116	t
117	u
118	v
119	w
120	x
121	y
122	z
123	{
124	|
125	}
126	ß
127	¢
128	!!
129	$_1$
130	$_2$
131	$_3$
132	$_4$
133	1/2
134	F/T
135	←

Code	Character
136	→
137	ᔓ
138	ᔑ
139	◀
140	▶
141	$_F$
142	$_T$
143	↓
144	ç
145	°
146	¿
147	Ù
148	à
149	Æ
150	ø
151	Å
152	¤
153	é
154	è
155	Pt
156	ì
157	Ñ
158	ò
159	£
160	¥
161	₀
162	⌜
163	⌟
164	˷
165	·
177	Á
178	Í
180	Ā
181	ā
182	Ē
183	ē
184	Ī
185	ī
186	Ū
187	ū
188	Ṇ
189	ṇ
190	Č
191	Š
192	Ç

Code	Character
193	i̇
194	Ġ
195	Ṣ
196	Ġ
197	ġ
198	Ḳ
199	ḳ
200	Ḷ
201	ḷ
202	Ž
203	Đ
204	đ
205	Ć
206	ć
207	€
208	**P**
209	`
210	ě
211	š
212	č
213	ž
214	ý
215	ụ
216	ň
217	˘
218	´
219	ř
224	*
225	§
226	Ø
227	^
228	↑
229	]
230	[
231	"
232	ä
233	ö
234	ü
235	æ
236	å
237	É
238	ñ
253	*(DC)

* (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/EANs and percentages. The PGM2 mode is used for programming all PGM1-mode programs and those items that require less frequent changes: date, time, 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 "4. Installing and removing the paper roll" under "OPERATOR MAINTENANCE".
4. Program necessary items into your machine.

■ Direct Programming

1 Setting the date and time

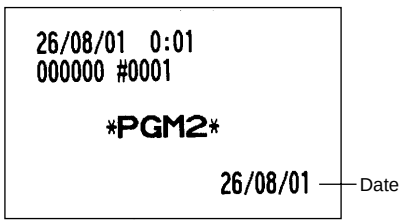
■ Date PGM 2

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

Procedure

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

Example August 26, 2001

Key operation	Print
260801 [#]	

■ Time PGM 2

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

Procedure

XXXX → [#]
Time (max. four digits)

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

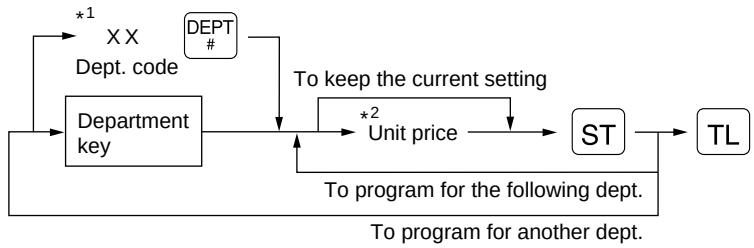
Key operation	Print
1430 [#]	26/08/01 14:30 000000 #0002 *PGM2* 14:30 (Time)

2 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:

■ Unit price PGM 1 PGM 2

Procedure

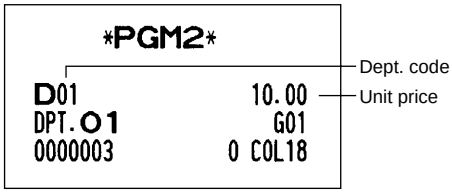


*1 Department code: 1 to 50
*2 Unit price: max. six digits (9999.99)

Example Programming the unit price 10.00 for department 1

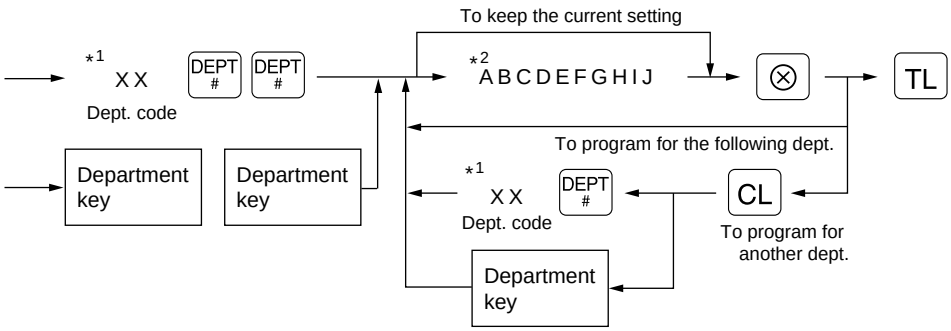
1. Press the department 1 key. • The current unit price will be displayed.	[1]	01 0.00
2. Enter the unit price "1000."	1000	01 1000
3. Press the [ST] key to program this setting.	[ST]	02 0.00
4. Press the [TL] key to finalize the programming and generate a programming report.	[TL]	0.00

Print



■ Functional selection PGM 2

Procedure



*1 Department code: 1 to 50

*2 Item:		Selection:	Entry:
A	Always enter 0.		0
B	VAT6 or TAX6	No	0
		Yes	1
C	VAT5 or TAX5	No	0
		Yes	1
D	VAT4 or TAX4	No	0
		Yes	1
E	VAT3 or TAX3	No	0
		Yes	1
F	VAT2 or TAX2	No	0
		Yes	1
G	VAT1 or TAX1	No	0
		Yes	1
H	Normal/SICS (Single Item Cash Sale)/ SIF (Single Item Finalization)	Normal	0
		SICS	1
		SIF	2
I	Significant digit for HALO		1 through 9
J	Number of zeros to follow the significant digit for HALO		0 through 8

Note

Tax status

- *The tax system of your machine has been factory–set to automatic VAT1–6. If you desire to select any of automatic tax 1–6, manual VAT1–6, manual VAT1, manual tax 1–6, and the combination of the automatic VAT 1–3 and the automatic tax 4–6, consult your dealer.*
- *When the combination of the automatic VAT1–3 and automatic tax 4–6 system is selected, one of the VAT1(G), VAT2(F) and VAT3(E) can be selected in combination with tax 4–6.*
  Example: BCDEFG= 100100, 110100, 111010

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 [TL] 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.*
- *IJ is the same as I x 10 [J].*
  For example, presetting 14 (100.00) here means that amount entries of up to 100.00 are allowed in the REG mode. When you preset 18, however, the upper limit amount is 999999.99.

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

A B C D E F G H I J

1. Press the department 4 key twice. [4] [4] → 0 0 0 0 0 0 0 0 1 8

- The current parameter setting will be displayed.

2. Set the parameters as follows:

- You can change the value at the blinker.
  Go to the desired position with the following keys:

[•] ·····Moves the blinker to the right. 0 0 0 0 0 0 0 0 1 8 → 0 0 0 0 0 0 0 0 1 8

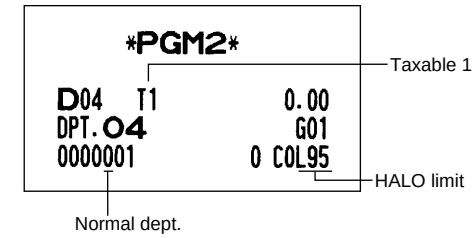
[00] ·····Moves the blinker to the left. 0 0 0 0 0 0 0 0 1 8 → 0 0 0 0 0 0 0 0 1 8

- Enter the figure. 0000001095 → 0 0 0 0 0 0 1 0 9 5

3. Press the [⊗] key to program this setting. [⊗] → 0 0 0 0 0 0 0 0 1 8

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

Print

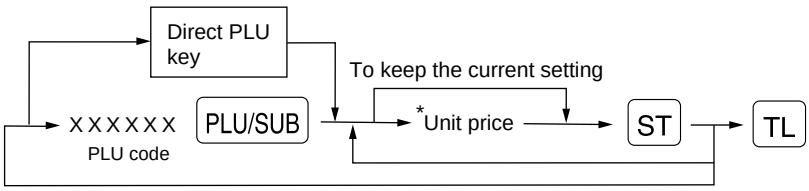


3 Price lookup (PLU) programming

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

■ Unit price PGM 1 PGM 2

Procedure

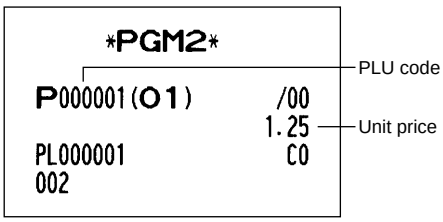


*Unit price: max. six digits (9999.99)

Example Programming the unit price 1.25 for PLU code 1

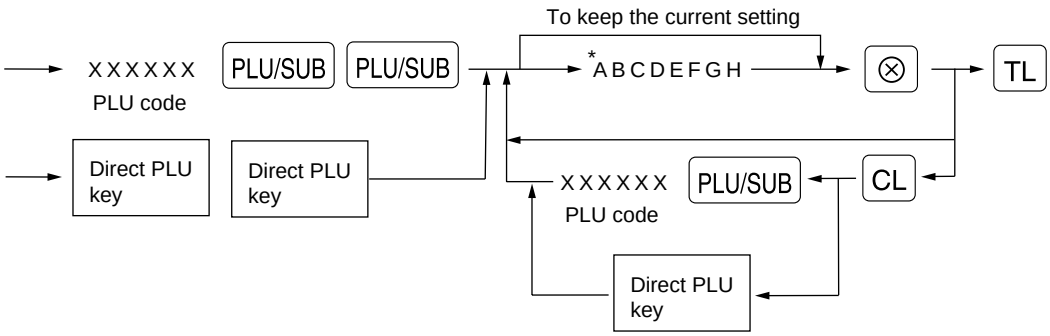
1.	Enter the PLU code "1" and press the PLU/SUB key.	1 PLU/SUB	000001 0.00
2.	Enter the unit price "125."	125	000001 125
3.	Press the ST key to program this setting.	ST	000002 0.00
4.	Press the TL key to finalize the programming and generate a programming report.	TL	0.00

Print



■ Functional selection PGM 2

Procedure



*	Item:		Selection:	Entry:
	A	Sign (plus/minus)	Plus	0
			Minus	1
	B	VAT6 or TAX6	No	0
			Yes	1
	C	VAT5 or TAX5	No	0
			Yes	1
	D	VAT4 or TAX4	No	0
			Yes	1
	E	VAT3 or TAX3	No	0
			Yes	1
	F	VAT2 or TAX2	No	0
			Yes	1
	G	VAT1 or TAX1	No	0
			Yes	1
	H	Mode	Prohibit mode	0
			Subdepartment mode	1
			PLU mode	2
			PLU/subdepartment mode	3
			Delete mode	4

Note

Sign (plus/minus)

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

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

Tax status

- *The tax system of your machine has been factory–set to automatic VAT1–6. If you desire to select any of automatic tax 1–6, manual VAT1–6, manual VAT1, manual tax 1–6, and the combination of the automatic VAT 1–3 and the automatic tax 4–6, consult your dealer.*
- *When the combination of the automatic VAT1–3 and automatic tax 4–6 system is selected, one of the VAT1(G), VAT2(F) and VAT3(E) can be selected in combination with tax 4–6. Example: BCDEFG= 100100, 110100, 111010*
- *A PLU not programmed for any of these tax statuses is registered depending on the tax status of the department which the PLU belongs to.*

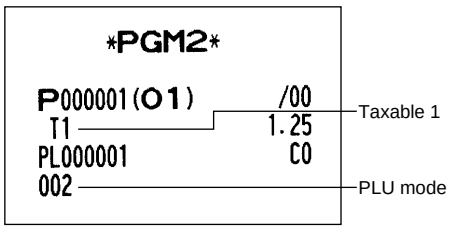
Mode parameter

- *PLU mode: Allows a PLU entry to be made by entering an assigned PLU code and depressing the* [PLU/SUB] *key.*
- *Subdepartment mode: Allows a subdepartment entry to be made by entering a unit price, pressing the* [AMT] *key, assigned PLU code and then pressing the* [PLU/SUB] *key.*
- *PLU/subdepartment mode: Allows PLU entries to be made in both the PLU and subdepartment modes.*
- *Delete mode: Deletes program data for each PLU.*
- *Prohibit mode: Prohibits the entry of any assigned PLU code. This mode does not clear the PLU/subdepartment program data.*

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

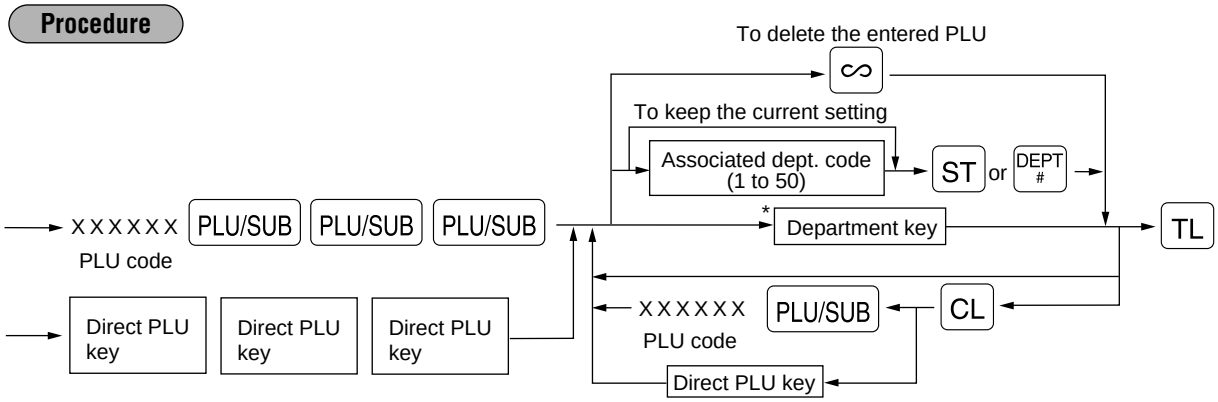
		A B C D E F G H
1. Enter the PLU code "1" and press the PLU/SUB key twice.	1 PLU/SUB PLU/SUB	P 00000002
2. Set the parameters A to H. •You can go to the desired position with the 00 or • key.	00000012	P 00000012
3. Press the ⊗ key to program this setting.	⊗	P 00000002
4. Press the TL key to finalize the programming and generate a programming report.	TL	0.00

Print



■ PLU assignment to departments PGM 1 PGM 2

Procedure



*Department key to be associated with the entered PLU

Note

- *The following functions of the PLU depend on the programming for its associated department:*
  - *Grouping (Group 1 through 14)*
  - *SICS (Single Item Cash Sale)/SIF (Single Item Finalization)/Normal*
  - *HALO (high amount lockout)*

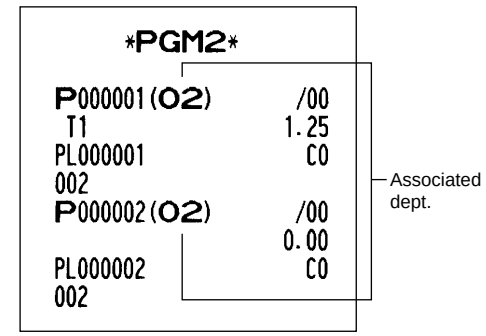
Example Assigning PLU codes 1 and 2 to department 2

1. Enter the PLU code "1" and press the PLU/SUB key three times.	1 PLU/SUB PLU/SUB PLU/SUB	000001 01
2. Press the department 2 key to assign PLU code 1 to department 2.	2	000002 01

3. Press the department 2 key to assign PLU code 2 to department 2. [2] → `000003 01`

4. Press the [TL] key to finalize the programming and generate a programming report. [TL] → `0.00`

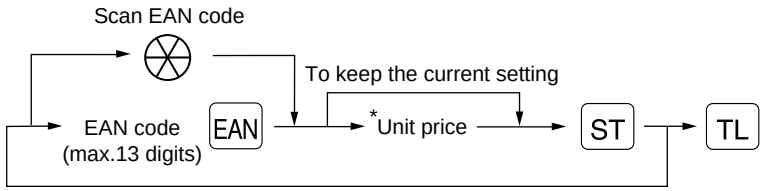
Print



4 European Article Number(EAN)/Universal Product Code(UPC) programming

■ Unit price PGM 1 PGM 2

Procedure



*Unit price: max. six digits (9999.99)

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

Example Programming the unit price 2.50 for EAN code 5012345678900.

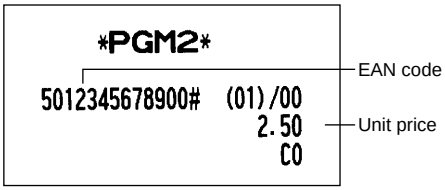
1. Scan the EAN code, or enter the EAN code "5012345678900" and press the [EAN] key. ⊛ or 5012345678900 [EAN] → `P 0.00`

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

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

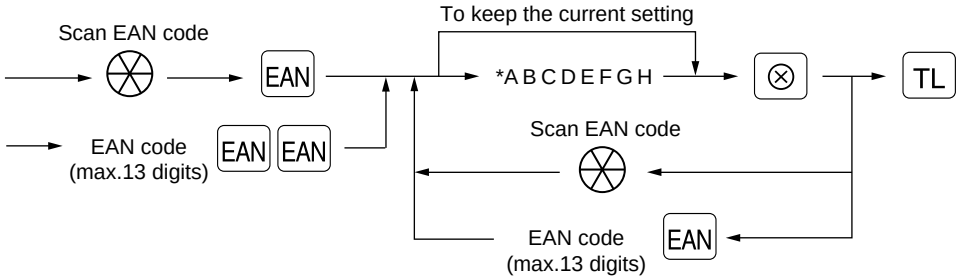
4. Press the [TL] key to finalize the programming and generate a programming report. [TL] → `0.00`

Print



■ Functional selection PGM 2

Procedure



*	Item:		Selection:	Entry:
	A	Sign (plus/minus)	Plus	0
			Minus	1
	B	VAT6 or TAX6	No	0
			Yes	1
	C	VAT5 or TAX5	No	0
			Yes	1
	D	VAT4 or TAX4	No	0
			Yes	1
	E	VAT3 or TAX3	No	0
			Yes	1
	F	VAT2 or TAX2	No	0
			Yes	1
	G	VAT1 or TAX1	No	0
			Yes	1
	H	Delete method (To erase from the EAN file)	Delete in non-accessed EAN deleting job (#105 in Z1 mode)	0
			Inhibit to delete in non-accessed EAN deleting job (#105 in Z1 mode)	1
			Delete now	4

Note

Sign (plus/minus)

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

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

Tax status

- *The tax system of your machine has been factory–set to automatic VAT1–6. If you desire to select any of automatic tax 1–6, manual VAT1–6, manual VAT1, manual tax 1–6, and the combination of the automatic VAT 1–3 and the automatic tax 4–6, consult your dealer.*
- *When the combination of the automatic VAT1–3 and automatic tax 4–6 system is selected, one of the VAT1(G), VAT2(F) and VAT3(E) can be selected in combination with tax 4–6.*
  Example: BCDEFG= 100100, 110100, 111010
- *An EAN code not programmed for any of these tax statuses is registered depending on the tax status of the department which the EAN code belongs to.*

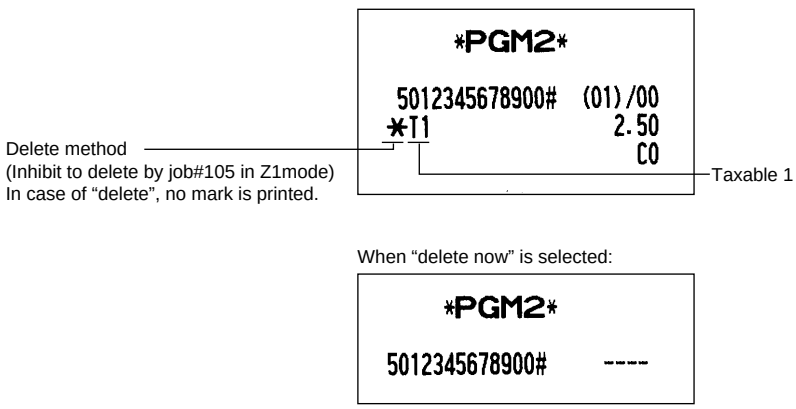
Delete method

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

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

			A B C D E F G H
1.	Scan the EAN code and press the [EAN] key, or enter the EAN code "5012345678900" and press the [EAN] key twice.	⊛ [EAN] or 5012345678900 [EAN] [EAN]	P 0 0 0 0 0 0 0 0
2.	Set the parameters A to H. •You can go to the desired position with the [00] or [•] key.	00000011	P 0 0 0 0 0 0 1 1
3.	Press the [⊗] key to program this setting.	[⊗]	P 0 . 0 0
4.	Press the [TL] key to finalize the programming and generate a programming report.	[TL]	0 . 0 0

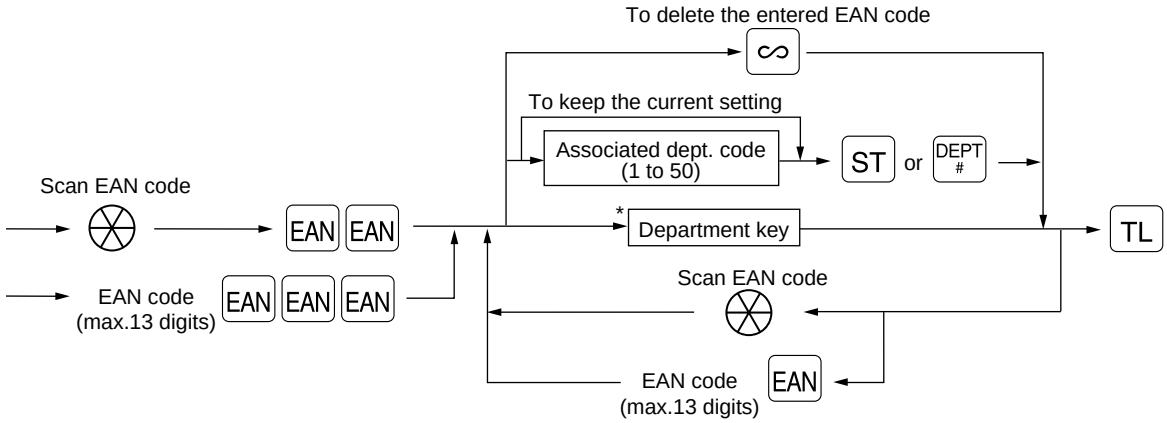
Print



When "delete now" is selected:

■ EAN assignment to departments PGM 1 PGM 2

Procedure



*Department key to be associated with the entered EAN code

Note

- *The following functions of the EAN code depend on the programming for its associated department:*
  - *Grouping (Group 1 through 14)*
  - *SICS (Single Item Cash Sale)/SIF (Single Item Finalization)/Normal*
  - *HALO (high amount lockout)*

Example Assigning EAN code 5012345678900 to department 2

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

⊛ [EAN] [EAN]

or

5012345678900 [EAN] [EAN] [EAN]

P 01

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

[2]

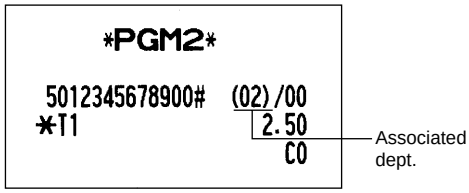
P 0.00

3. Press the [TL] key to finalize the programming and generate a programming report.

[TL]

0.00

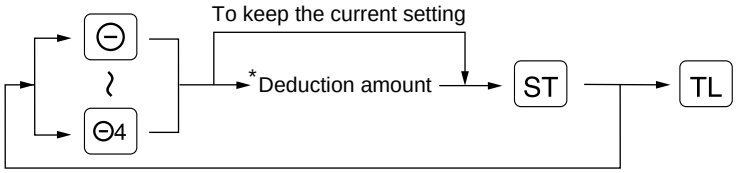
Print



5 Programming for discount keys

■ Deduction amount (⊖) PGM 1 PGM 2

Procedure

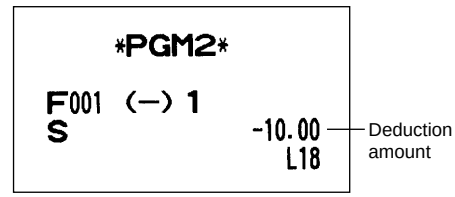


*Deduction amount: 0 - 999999

Example Assigning “10.00” to the ⊖ key

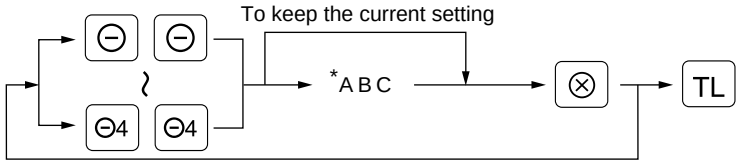
1. Press the ⊖ key.	⊖	001 0.00
2. Enter the deduction amount “1000.”	1000	001 1000
3. Press the ST key to program this setting.	ST	001 10.00
4. Press the TL key to finalize the programming and generate a programming report.	TL	0.00

Print



■ High amount lockout (HALO) and +/- sign (⊖) PGM 2

Procedure



*	Item:		Selection:	Entry:
	A	Sign (plus/minus)	Plus	0
			Minus	1
	B	Significant digit for HALO		1 through 9
	C	Number of zeros to follow the significant digit for HALO		0 through 8

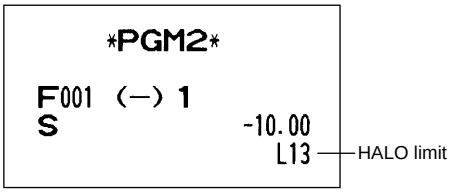
Note

HALO (High Amount Lockout)
BC is the same as B x 10 C.
For example, presetting 14 (100.00) here means that amount entries of up to 100.00 are allowed in the REG mode. When you preset 18, however, the upper limit amount is 999999.99.

Example Programming for the ⊖ key as follows: A=1, B=1, and C=3

			A B C
1.	Press the ⊖ key twice.	⊖ ⊖	001 118
2.	Set the parameters A to C. •You can go to the desired position with the 00 or • key.	113	001 113
3.	Press the ⊗ key to program this setting.	⊗	001 113
4.	Press the TL key to finalize the programming and generate a programming report.	TL	0.00

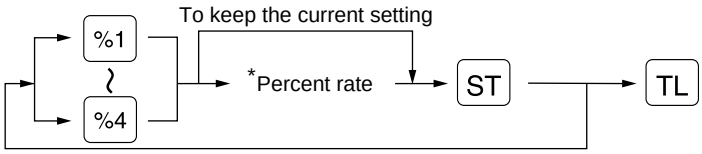
Print



6 Programming for percent keys

■ Percent rate (%) PGM 1 PGM 2

Procedure



* Percent rate: 0.00 - 100.00

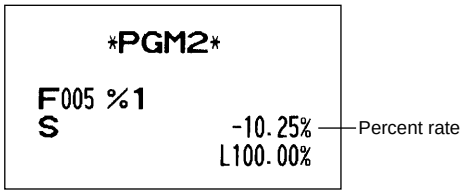
Note *You must use a decimal point when setting percentage rates that are fractional.*

Example Assigning 10.25% to the %1 key

Key operation

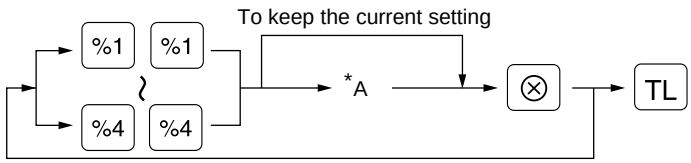
%1 10 • 25 ST/TL

Print



■ Sign (+/-) (%) PGM 2

Procedure



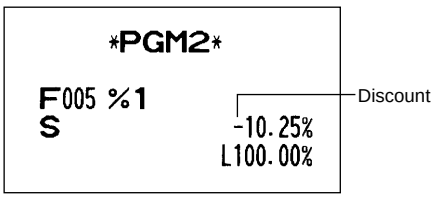
*	Item:		Selection:	Entry:
	A	Sign (plus/minus)	Plus (premium)	0
			Minus (discount)	1

Example Programming minus sign for the %1 key

Key operation

%1 %1 1 ⊗/TL

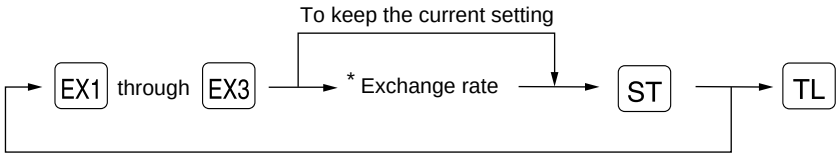
Print



7 Programming for exchange keys

■ Currency exchange rate ([EX]) PGM 1 PGM 2

Procedure



* Currency exchange rate: 0.000000 - 999.999999

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

Example Assigning 0.6068 to the [EX1] key

Key operation

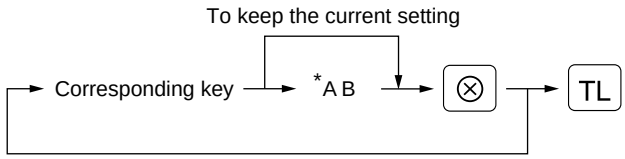
[EX1] 0 [•] 6068 [ST] [TL]

Print

8 Programming for the [CA2], [RA], [PO], [CH] and [CR] keys

■ High amount lockout (HALO) ([CA2], [RA], [PO], [CH] and [CR]) PGM 2

Procedure



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

Example Programming a HALO limit of 1000.00 (15) for the [CR2] key

Key operation

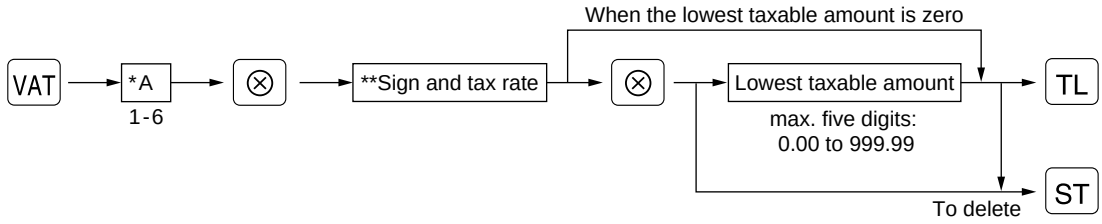
[CR2] 15 [⊗] [TL]

Print

9 Programming the tax rate

■ Tax rate PGM 2

Procedure



***** A: Enter a corresponding tax rate number. For example, when you program a tax rate as tax rate 1, enter "1", and when you program it as tax rate 6, enter "6".

** Sign and tax rate: XYYY.YYYY
- Tax rate= 0.0001 to 100.0000
- Sign $^{-}/_{+}$ = $^{1}/_{0}$

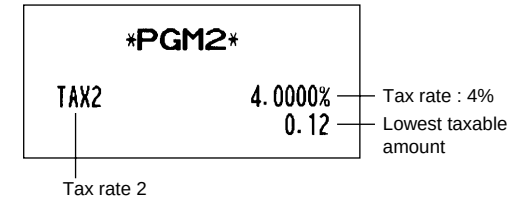
Note

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

Example Programming the tax rate (+4%) as tax rate 2 with lowest taxable income as 0.12

1. Press the VAT key.	VAT	P 0.00
2. Enter the tax rate "2".	2 ⊗	2 0.00
3. Enter the tax rate "+4%."	4 ⊗	2 0.00
4. Enter the lowest taxable amount "12."	12	2 12
5. Press the TL key to finalize the programming and generate a programming report.	TL	0.00

Print



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 in comparison with direct programming.

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

2110 → [•] → [⊗] →

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

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

Procedure

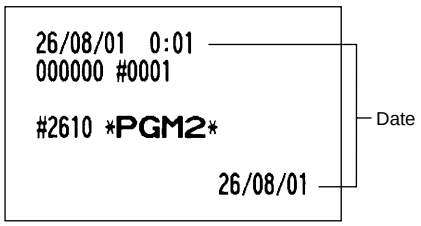
2610 → [•] → [⊗] → Date (five or six digits) → [TL]

Example

Key operation

2610 [•] [⊗]
260801 [TL]

Print



■ Setting the time PGM 2 2611 Direct

Set the time using the 24-hour format. For example, when the time is set to 2:30 AM, enter 230; and when it is set to 2:30 PM, enter 1430.

Procedure

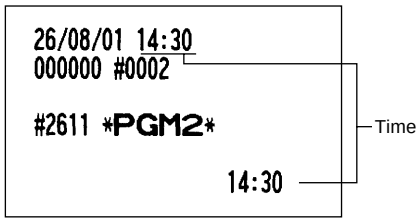
2611 → [•] → [⊗] → Time (max. four digits) → [TL]

Example

Key operation

2611 [•] [⊗]
1430 [TL]

Print

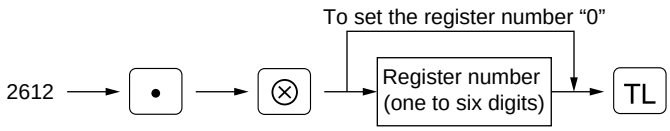


2 Setting the register and consecutive numbers

■ 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

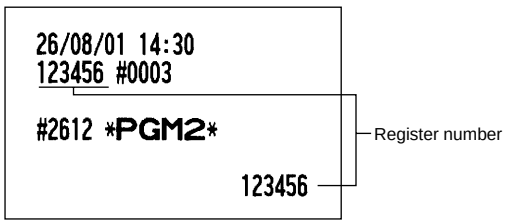


Example

Key operation

2612 [•] [⊗]
123456 [TL]

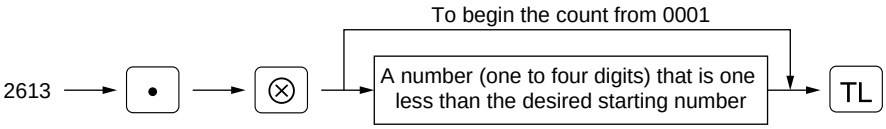
Print



■ Setting the consecutive number PGM 2 2613

The consecutive number is increased by one each time a receipt is issued.
Enter a number (one to four digits) that is one less than the desired starting number.

Procedure

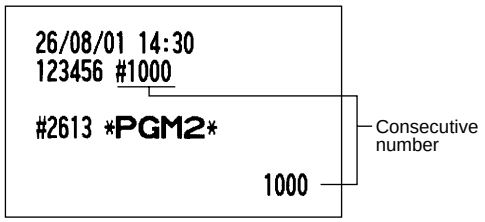


Example

Key operation

2613 [•] [⊗]
1000 [TL]

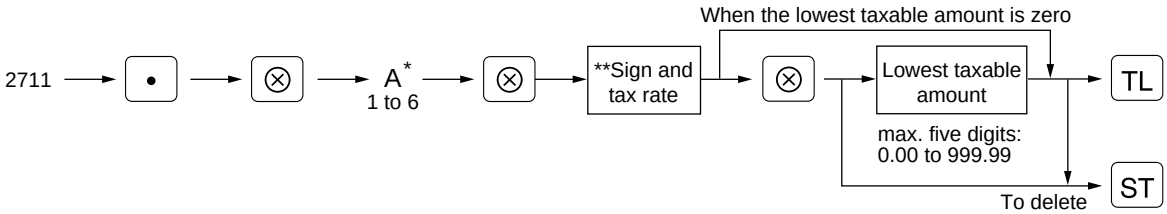
Print



3 Programming the tax rate

■ Tax rate PGM 2 2711 Direct

Procedure



*A: Enter a corresponding tax rate number. For example, when you program a tax rate as tax rate 1, enter 1 and when you program it as tax rate 6, enter 6.

** Sign and tax rate: XYYY.YYYY

Tax rate= 0.0001 to 100.0000

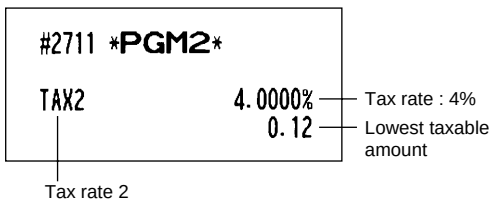
Sign $^{-}/_{+}$ = $^{1}/_{0}$

Example

Key operation

2711 [•] [⊗]
2 [⊗]
4 [⊗]
12 [TL]

Print



Note

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

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 PGM 2 2110

You can set each department for:

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

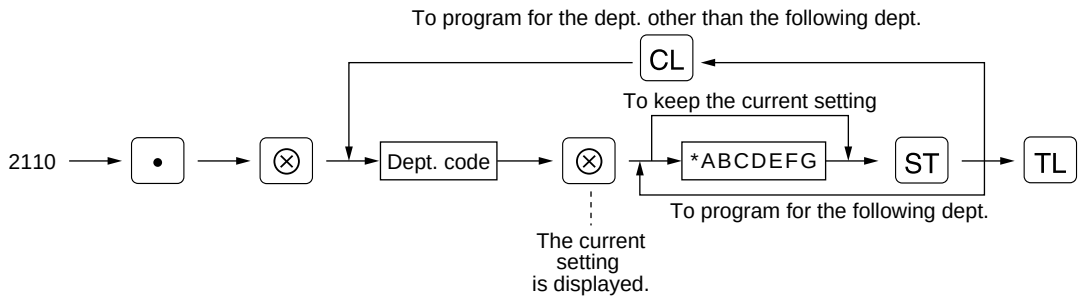
- SICS
  If the first registration is to a department set for SICS, the sale is finalized as soon as the department key is pressed. If the sale is preceded by registrations to departments not set for SICS, a sale to a department set for SICS does not finalize and can be repeated until the TL key is pressed.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



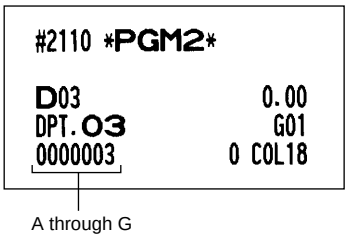
*	Item:		Selection:	Entry:
	A to **D**	Always enter 0.		0
	E	SIF/SICS /Normal	SIF	2
			SICS	1
			Normal	0
	F	Always enter 0.		0
	G	Type of unit price entry	Open and preset	3
			Preset only	2
			Open only	1
			Inhibit department key	0

Example

Key operation

2110 [•] [⊗]
3 [⊗] 0000003 [ST]
[TL]

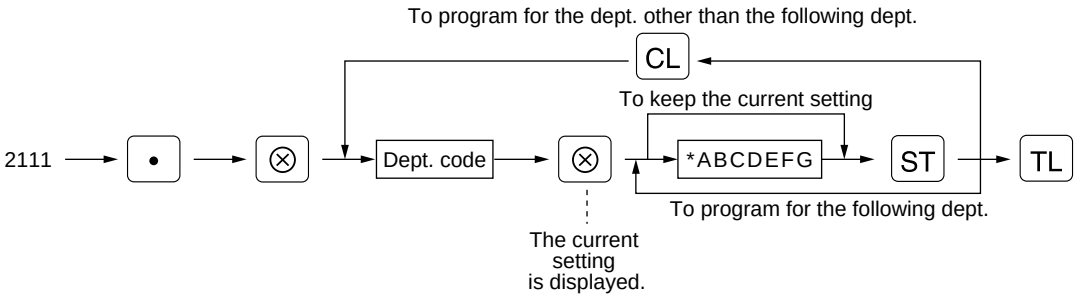
Print



■ Tax status PGM 2 2111 Direct

Assign a tax status to each department. When entries are made into taxable departments in a transaction, tax is automatically computed according to the associated tax rate as soon as the transaction is completed.

Procedure



*	Item:		Selection:	Entry:
	A	Always enter 0.		0
	B	VAT6 or TAX6	Yes	1
			No	0
	C	VAT5 or TAX5	Yes	1
			No	0
	D	VAT4 or TAX4	Yes	1
			No	0
	E	VAT3 or TAX3	Yes	1
			No	0
	F	VAT2 or TAX2	Yes	1
			No	0
	G	VAT1 or TAX1	Yes	1
			No	0

Note

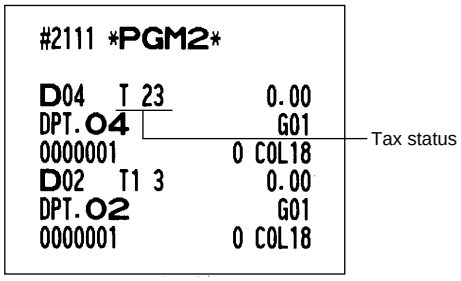
- *The tax system of your machine has been factory–set to automatic VAT1–6. If you desire to select any of automatic tax 1–6, manual VAT1–6, manual VAT1, manual tax 1–6, and the combination of the automatic VAT 1–3 and the automatic tax 4–6, consult your dealer.*
- *When the combination of the automatic VAT1–3 and automatic tax 4–6 system is selected, one of the VAT1(G), VAT2(F) and VAT3(E) can be selected in combination with tax 4–6.*
  Example: BCDEFG= 100100, 110100, 111010

Example

Key operation

2111 [•] [⊗]
4 [⊗] 0000110 [ST]
[CL] 2 [⊗] 0000101 [ST]
[TL]

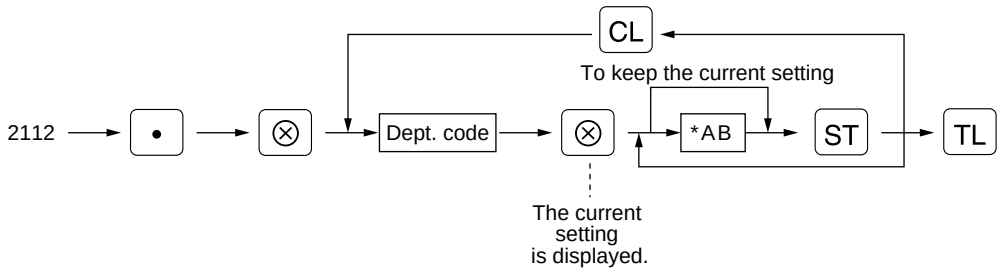
Print



■ 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 8)

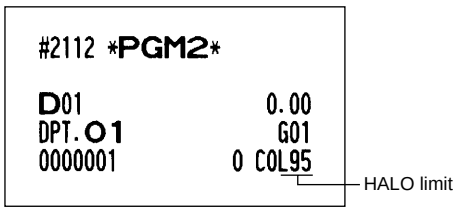
For example, presetting 14 (100.00) here means that amount entries of up to 100.00 are allowed in the REG mode. But when you preset 18, the upper limit amount is 999999.99.

Example

Key operation

2112 [•] [⊗]
1 [⊗] 95 [ST]
[TL]

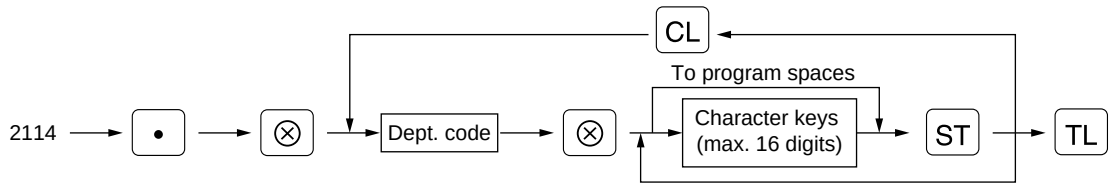
Print



■ Alphanumeric characters PGM 2 2114

You can program a maximum of 16 characters (item label) for each department. (However, the default setting is for a 12-character label.)
Select the characters you want to program, referring to section “2 How to program alphanumeric characters” in chapter “PRIOR TO PROGRAMMING”.

Procedure

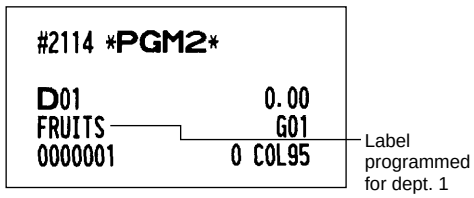


Example

Key operation

2114 • ⊗
1 ⊗
FRUITS ST
TL

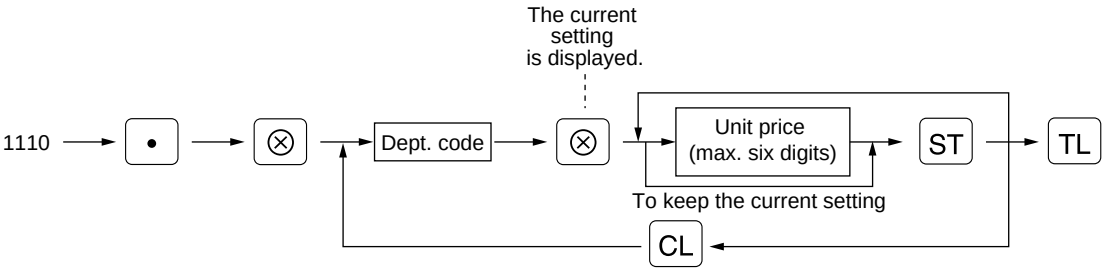
Print



■ 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 is not programmed to allow the entry of preset unit prices in functional programming (job 2110), the department is automatically changed to allow the entry of preset unit prices by this programming entry.

Procedure

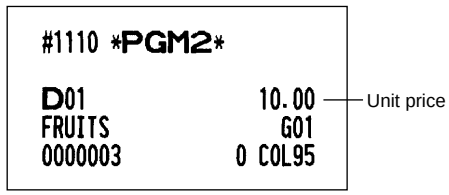


Example

Key operation

1110 • ⊗
1 ⊗ 1000 ST
TL

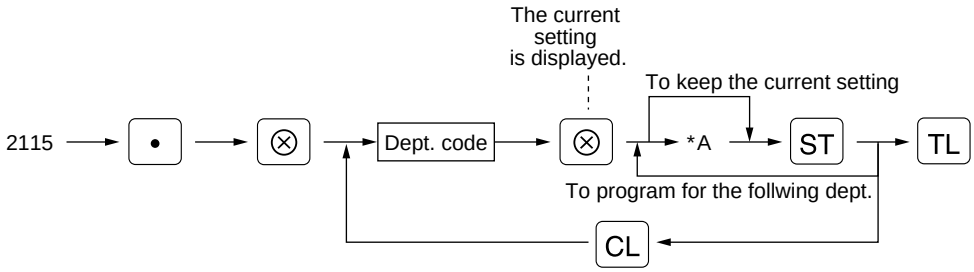
Print



■ Commission group assignment PGM 2 2115

Your machine allows you to assign a commission group (1-9) to each department.

Procedure



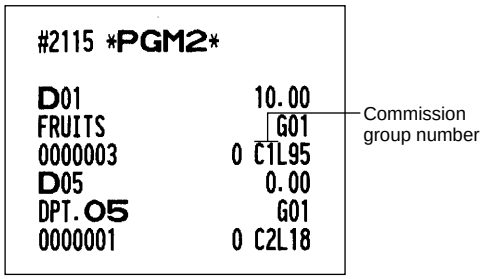
* A: Commission group 0-9 (0 = no commission)

Example

Key operation

2115 • ⊗
1 ⊗ 1 ST
CL 5 ⊗ 2 ST
TL

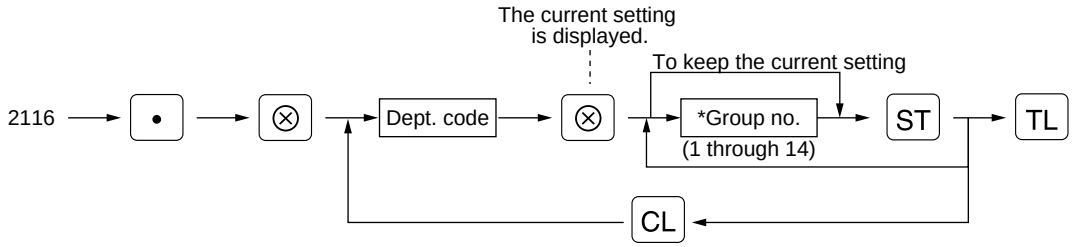
Print



■ Group number PGM 2 2116

You can assign departments to a maximum of 14 groups (1 through 14).
This programming enables you to take group department sales reports.

Procedure



* Group number:

Dept. (+)	1 through 9 (groups 1 through 9)
Dept. (–)	10
Hash (+) dept.	11
Hash (–) dept.	12
Bottle return (+) dept.	13
Bottle return (–) dept.	14

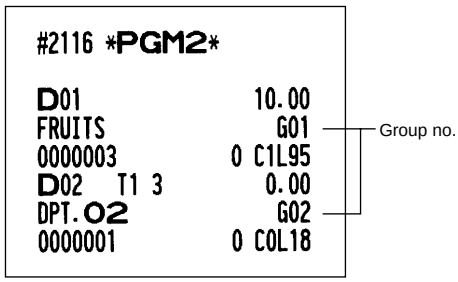
Note *The standard model provides no hash dept./bottle return dept. If you need them, please consult your dealer.*

Example

Key operation

2116 • ⊗
1 ⊗ 1 ST
2 ST
TL

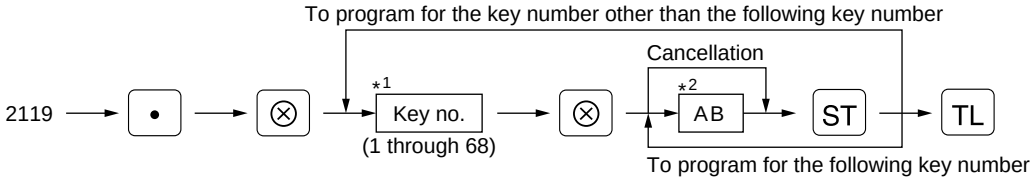
Print



■ Department key positioning PGM 2 2119

You can assign a department number to each key position. Each key position has a corresponding key number.
Departments may be freely selected for the number of department keys and their positions.
To assign the department to a key position, select the key number of the position.
For key number position, refer to section “2 Standard key number layout” in chapter “KEYBOARD”.

Procedure



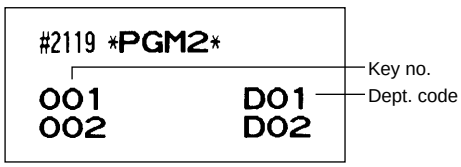
*1 The key number placement is determined by your local Authorized SHARP Dealer.
*2 AB is a department code.

Example

Key operation

2119 • ⊗
1 ⊗ 1 ST
2 ST
TL

Print



5 Price lookup (PLU) programming

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

Each PLU requires you to program the following:

PLU code (six digits)
Associated department
When a PLU is associated with a department, the following functions of the PLU depend on the programming for the corresponding department.
- Grouping (Group 1 through14)
- HALO (only for the subdepartment)
- Single item cash sale/Single item finalization

Unit price (max. six digits)
You will usually have unit prices programmed for individual PLUs as PLU preset unit prices. If you program unit price "0" for a PLU, you can enter only the selling quantity of 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.

PLU, subdepartment, PLU/subdepartment, delete, or prohibit mode
- If the PLU mode (i.e. automatic preset unit price entry) is selected, individual PLU entries can be made by entering the assigned code and depressing the PLU/SUB key (or by depressing a direct PLU key without any PLU code entry).
- If the subdepartment mode is selected, the AMT key must be depressed after the price entry followed by the PLU code entry. The entry is finalized by the PLU/SUB key depressed.
- If the PLU/subdepartment mode is selected, the entries in both the PLU and subdepartment modes are available.
- If the delete mode is selected, the corresponding program data 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.

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.

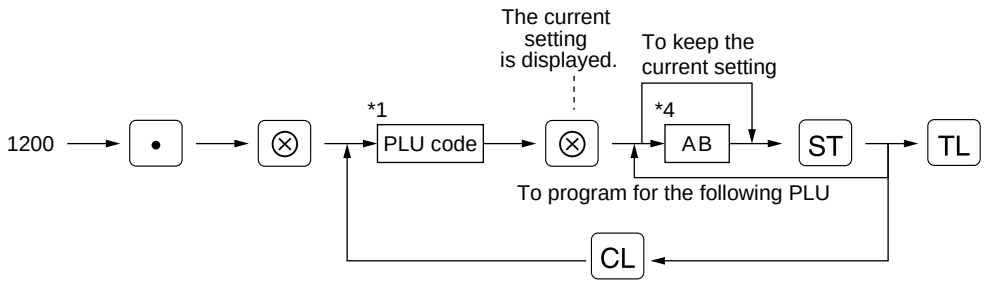
Tax status
Item label (12 characters) (option: max. 16 characters)
Commission group (1 to 9)
Link PLU
Any PLU is able to link to any other PLU (e.g. bottle deposit). However, the number of links is a maximum of 5. Even if more than 5 PLUs are linked, the sixth or higher link is not actualized.
Direct PLU key positioning

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

■ Department assignment PGM 1 PGM 2 1200 2230 Direct

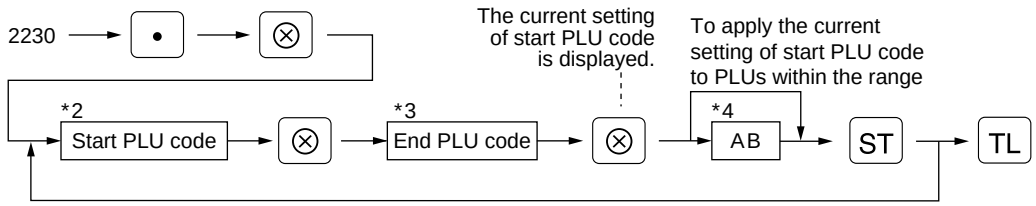
Procedure

For each PLU



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

For a range of PLUs



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

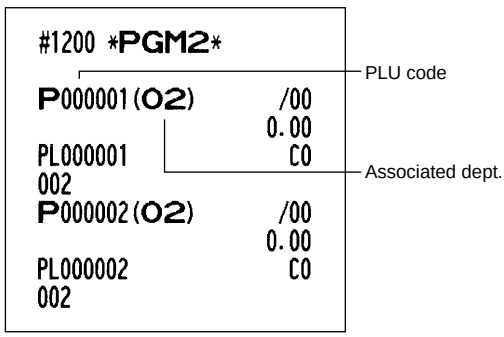
Example

For each PLU

Key operation

1200 • ⊗
1 ⊗ 2 ST
2 ST
TL

Print

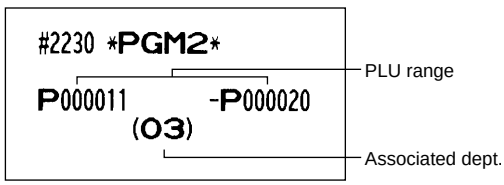


For a range of PLUs

Key operation

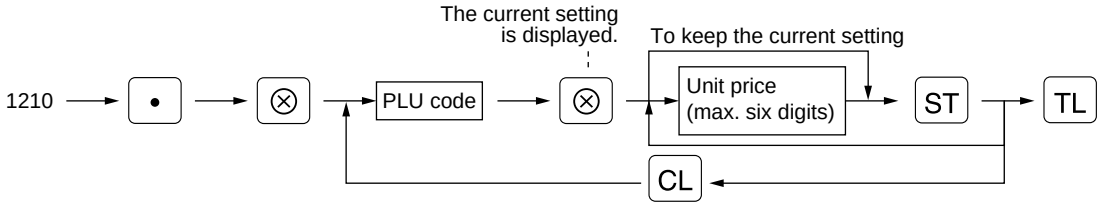
2230 • ⊗
11 ⊗ 20 ⊗
3 ST
TL

Print



■ Unit prices PGM 1 PGM 2 1210 Direct

Procedure

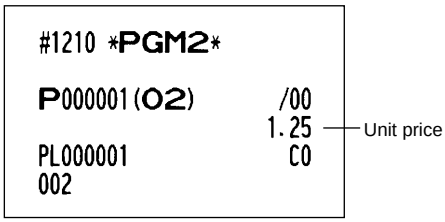


Example

Key operation

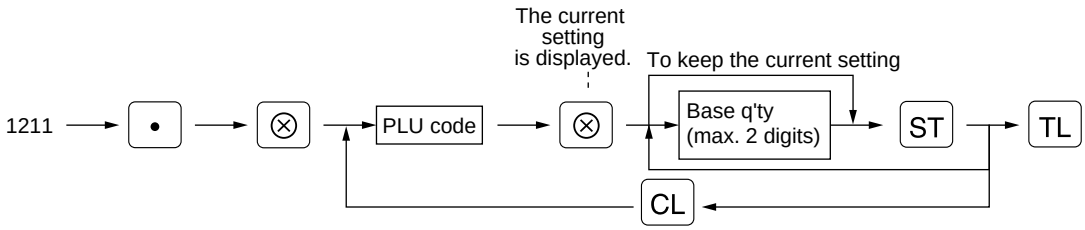
1210 • ⊗
1 ⊗ 125 ST
TL

Print



■ Base quantity PGM 1 PGM 2 1211

Procedure

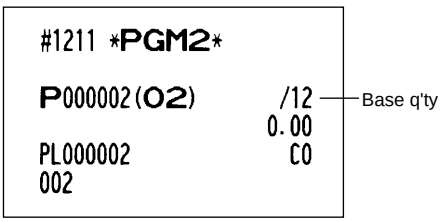


Example

Key operation

1211 • ⊗
2 ⊗ 12 ST
TL

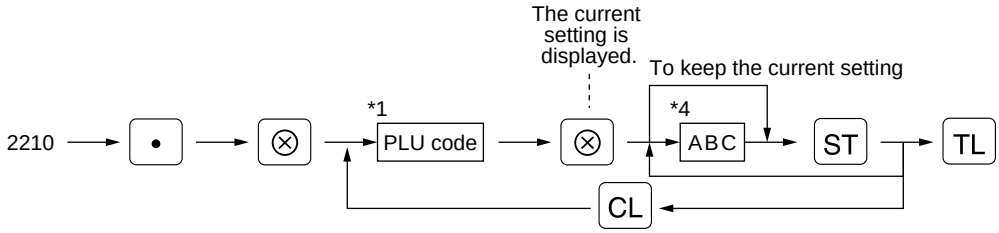
Print



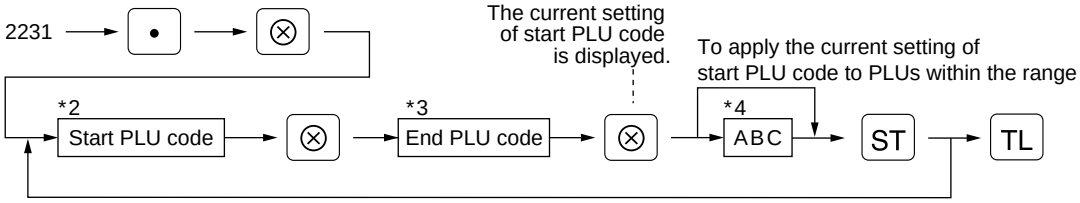
■ PLU/subdepartment mode PGM 2 2210 2231 Direct

Procedure

For each PLU



For a range of PLUs



*1,2,3: 1 through 999999

*4:

Item:		Selection:	Entry:
A and **B**	Always enter 0.		0
C	Mode parameter	Prohibit mode	0
		Subdept. mode	1
		PLU mode	2
		PLU/subdept. mode	3
		Delete mode	4

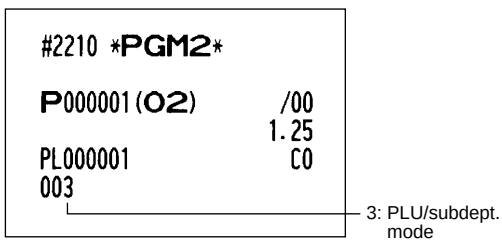
Example

For each PLU

Key operation

2210 • ⊗
1 ⊗ 003 ST
TL

Print

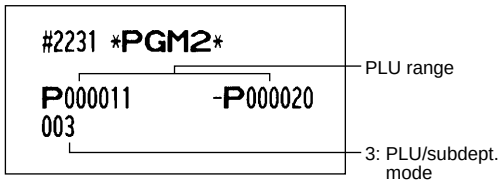


For a range of PLUs

Key operation

2231 • ⊗
11 ⊗ 20 ⊗
003 ST
TL

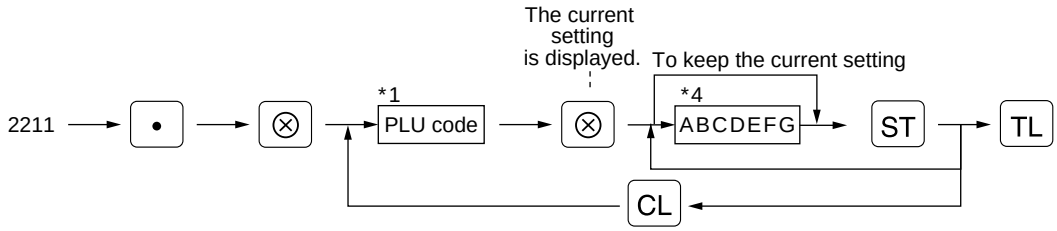
Print



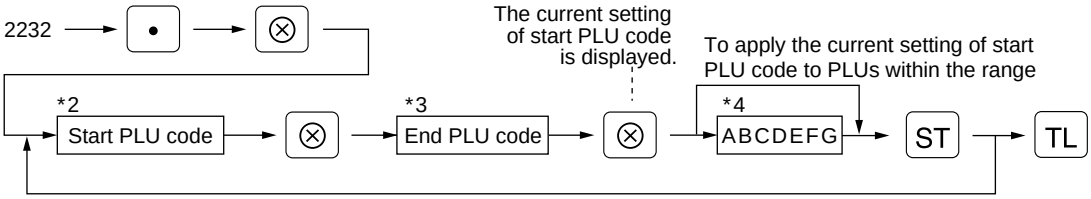
■ Sign (+/-) and tax status PGM 2 2211 2232 Direct

Procedure

For each PLU



For a range of PLUs



*1,2,3: 1 through 999999

*4:

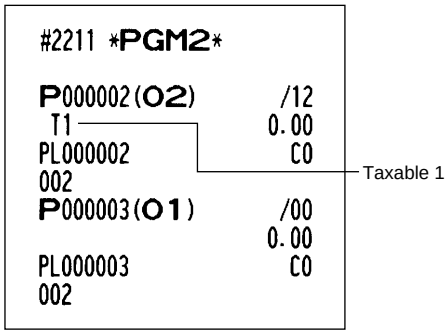
Item:		Selection:	Entry:
A	Sign (+/-)	Minus PLU	1
		Plus PLU	0
B	VAT6 or TAX6	Yes	1
		No	0
C	VAT5 or TAX5	Yes	1
		No	0
D	VAT4 or TAX4	Yes	1
		No	0
E	VAT3 or TAX3	Yes	1
		No	0
F	VAT2 or TAX2	Yes	1
		No	0
G	VAT1 or TAX1	Yes	1
		No	0

Note

- *The tax system of your machine has been factory–set to automatic VAT1–6. If you desire to select any of automatic tax 1–6, manual VAT1–6, manual VAT1, manual tax 1–6, and the combination of the automatic VAT 1–3 and the automatic tax 4–6, consult your dealer.*
- *When the combination of the automatic VAT1–3 and automatic tax 4–6 system is selected, one of the VAT1(G), VAT2(F) and VAT3(E) can be selected in combination with tax 4–6.*
  Example: BCDEFG= 100100, 110100, 111010
- *A PLU not programmed for any of these tax statuses is registered depending on the tax status of the department which the PLU belongs to.*

Example

For each PLU

Key operation	Print
2211 [•] [⊗] 2 [⊗] 0000001 [ST] 0000000 [ST] [TL]	

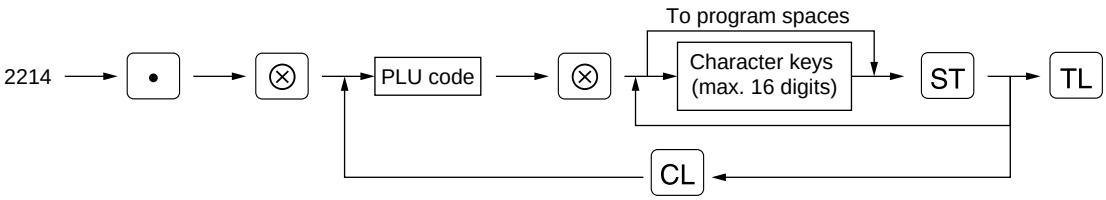
For a range of PLUs

Key operation	Print
2232 [•] [⊗] 11 [⊗] 20 [⊗] 0000001 [ST] [TL]	

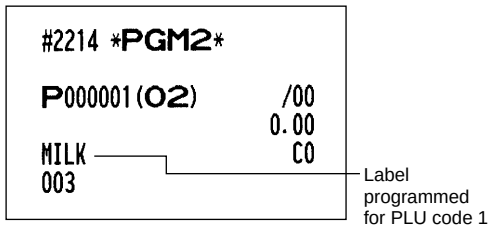
■ Alphanumeric characters PGM 2 2214

You can program a maximum of 16 characters (item label) for each PLU or subdepartment. (However, the default setting is for a 12-character label.) Select the characters you want to program, referring to section "2 How to program alphanumeric characters" in chapter "PRIOR TO PROGRAMMING".

Procedure



Example

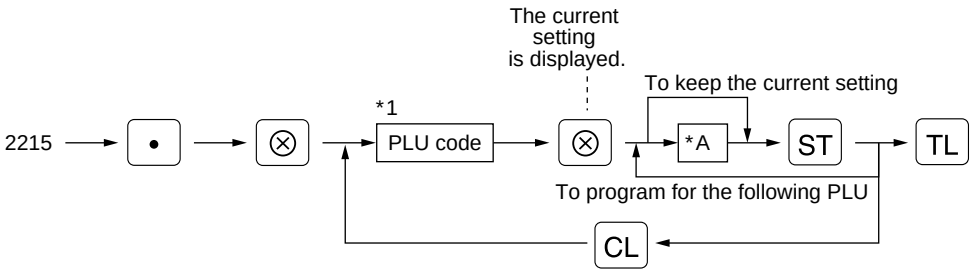
Key operation	Print
2214 [•] [⊗] 1 [⊗] MILK [ST] [TL]	

■ Assigning of PLUs to commission groups PGM 2 2215 2235

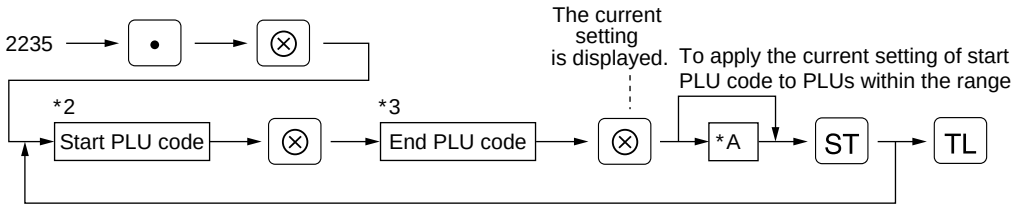
You can assign PLUs (or subdepartments) to commission groups.

Procedure

For each PLU



For a range of PLUs



*1,2,3 : 1 through 999999
*A : Commission group 0-9 (0=no commission)

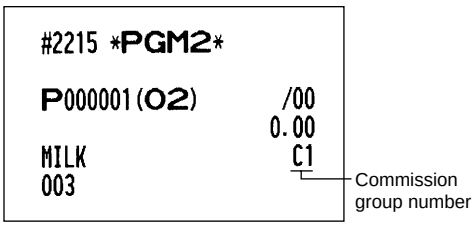
Example

For each PLU

Key operation

2215 • ⊗
1 ⊗ 1 ST
TL

Print

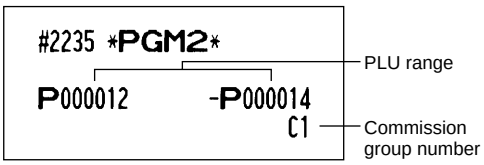


For a range of PLUs

Key operation

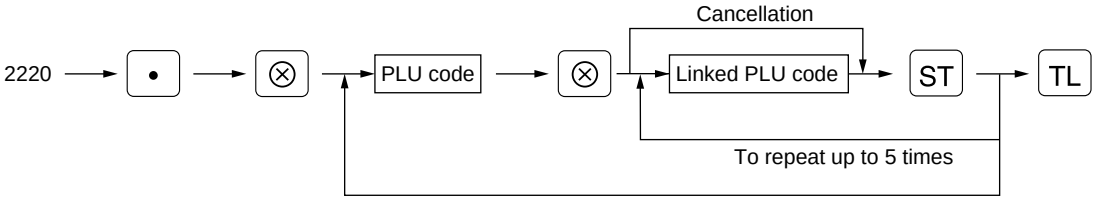
2235 • ⊗
12 ⊗ 14 ⊗
1 ST
TL

Print



■ Link PLU PGM 2 2220

Procedure



Note

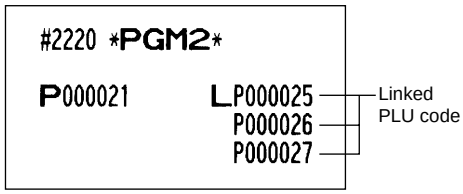
- *To program this function, please consult your dealer.*
- *PLU codes must have already been defined.*

Example

Key operation

2220 • ⊗
21 ⊗ 25 ST
26 ST
27 ST
TL

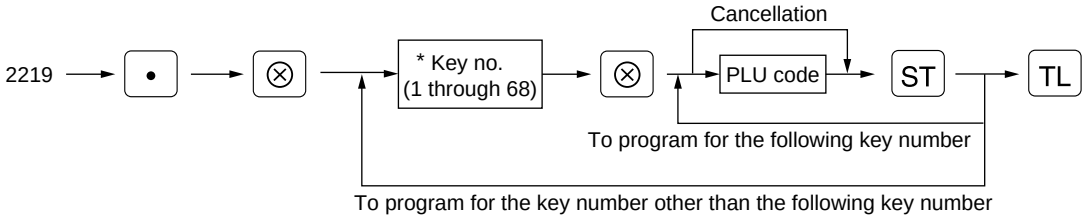
Print



■ Direct PLU key positioning PGM 2 2219

You can assign a PLU code to each key position. PLUs may be selected for the number of direct PLU keys and their positions. For key number positions, refer to section “2 Standard key number layout” in the chapter “KEYBOARD”.

Procedure



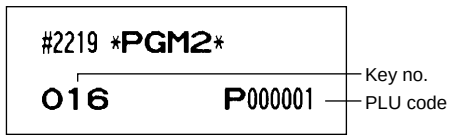
* The key number placement is determined by your local Authorized SHARP Dealer.

Example

Key operation

2219 • ⊗
16 ⊗
1 ST
TL

Print



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

■ EAN or UPC code

Your machine can transact the following codes:

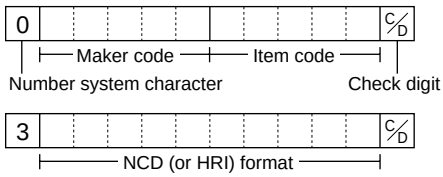
- UPC-A (Number system character: 0, 2, 3, 4)
- UPC-E
- EAN-8
- EAN-13
- Internal code EAN-8/EAN-13

For the codes used in-store marking, there are two types of PLU type (treated as a code like PLU code) 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

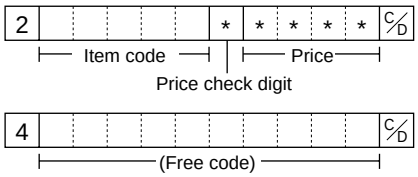
- Number system character: 0 <used in the source marking>
- Number system character: 3 <used as NDC or HRI>

For entry, a full 12 digits number or 11 digits 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>

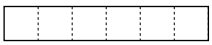
For entry, a full 12 digits number, 11 digits number (omitting the check digit), or a leading zero plus 12 digits number must be entered.(Any numbers are allowed for the digits marked with *, and on the receipt/journal, non-PLU type code is printed like 2020008**** (****: price information).)



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 package.

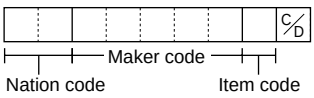
For entry, a 6 digits number or a leading zero plus 6 digits number must be entered.



EAN-8

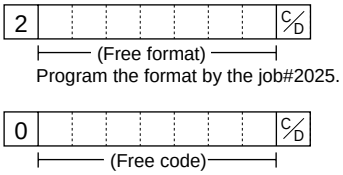
- Ordinary EAN-8 code (flag: neither 0 nor 2) <used in the source marking>

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



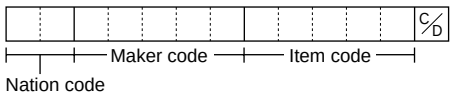
- Internal code (flag 2) <in-store marking non-PLU short type>
  Program the format by the job #2025.
- Internal code (flag 0) <in-store marking PLU short type>

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



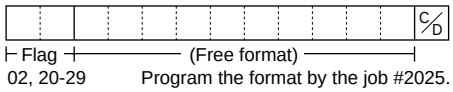
EAN-13

- 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.

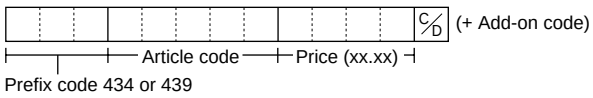
- Internal code (used in the in-store marking, the flag character number: 20 through 29 and 02)
  Program the format by the job# 2025.



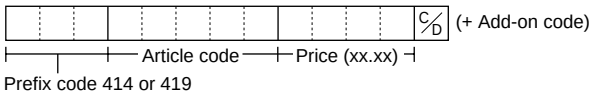
- EAN press code (used for press articles)
  For a press article, you must use a 13 digits number EAN code plus a 2-digit or 5-digit add-on code, though your register can register 13 digits number EAN code without an add-on code.

Note *The format for press articles is decided unique by each country. For the formats for other countries than the ones shown below, please ask your dealer.*

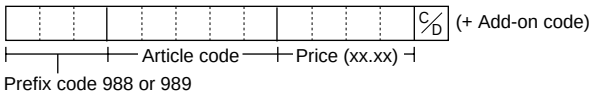
German type 1
Currency for price is DM. (The price is not converted automatically according to EURO status.)



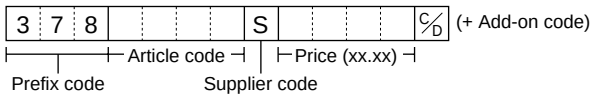
German type 2
(EURO code - The price is coded in EURO from January 2002)
Currency for price is EURO.



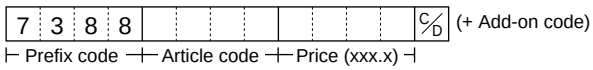
United Kingdom
Currency for price is GBP.



France
Currency for price on the prefix code 378 is EURO, and 379 is FFr. (The price is converted automatically according to EURO status.)



Sweden
Currency for price is SKr.



Note
- *The availability of these press codes on your register depends on the programming (job #2035)*
- *Since the price in a press code is read for sales entries, and the currency is decided by the code, note that the code you enter for sales matches your domestic currency.*

■ 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 EAN code entered from the total number of digits and the flag.*

■ EAN/UPC programming

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

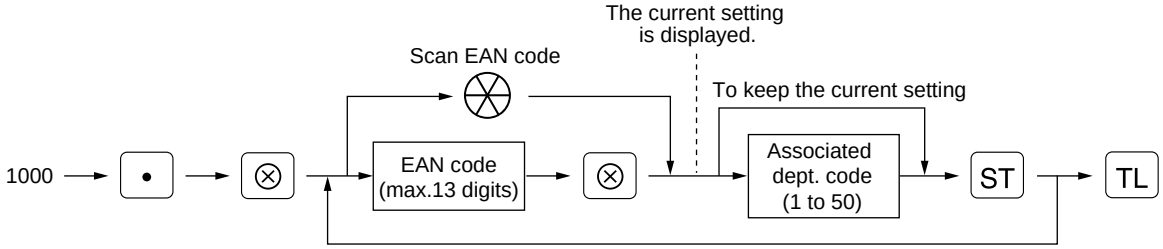
- **EAN code (max. 13 digits)**
- **Associated department (1-50)**
  When an EAN is associated with a department, the following functions of the EAN depend on the programming for the department.
  - Grouping (Group 1 through14)
  - HALO (only for the subdepartment)
  - Single item cash sale/Single item finalization

EAN code delete method
You can program how you delete EAN codes; deleting in the programming, inhibit deleting, or deleting the EAN 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 an EAN, the tax status of the EAN follows to the status of the associated department.
Item label (12 characters) (option max. 16 characters)
Commission group (1-9)
EAN link

System programming for EAN function
Delete period for non-accessed EAN codes
Non-PLU code format
Type of press code
Price entry method for press code
Label of record in EAN file

■ Department assignment PGM 1 PGM 2 1000 Direct

Procedure

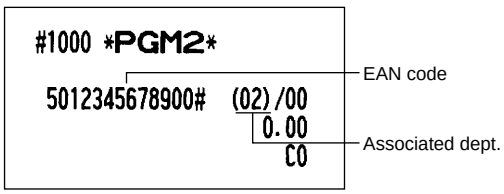


Example

Key operation

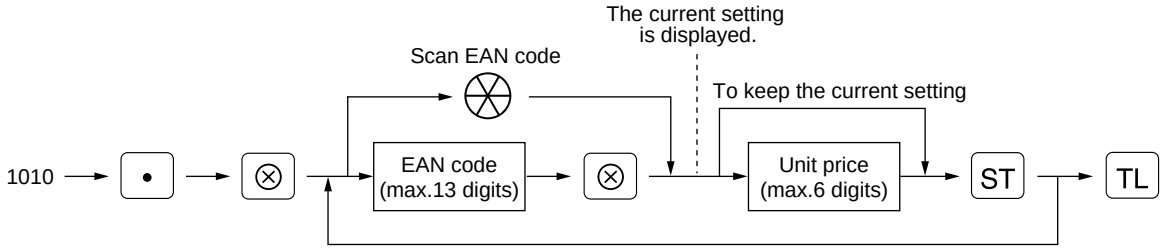
1000 • ⊗
5012345678900 ⊗
2 ST
TL

Print



■ Unit prices PGM 1 PGM 2 1010 Direct

Procedure

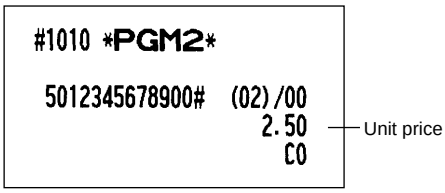


Example

Key operation

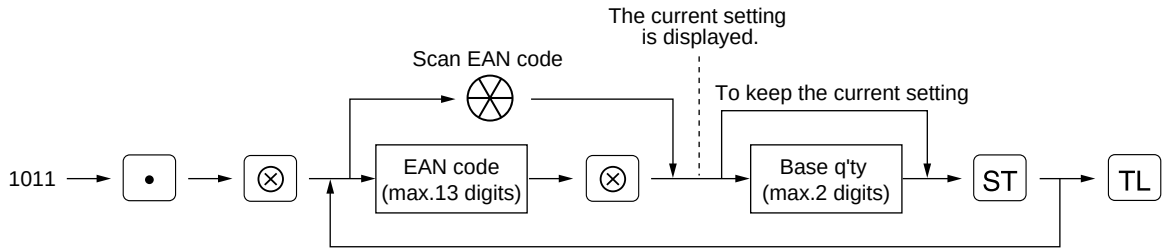
1010 [•] [⊗]
5012345678900 [⊗]
250 [ST]
[TL]

Print



■ Base quantity PGM 1 PGM 2 1011

Procedure

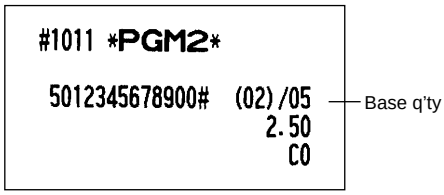


Example

Key operation

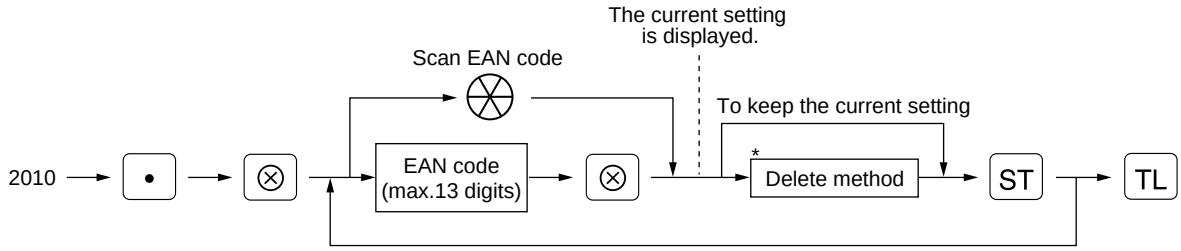
1011 [•] [⊗]
5012345678900 [⊗]
5 [ST]
[TL]

Print



■ Delete method PGM 2 2010

Procedure



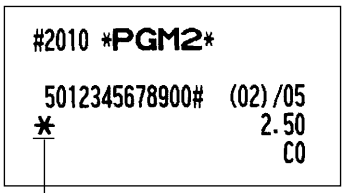
* Delete method
4: Delete now
1: Inhibit to delete in non-accessed EAN deleting job (#105 in Z1 mode)
0: Delete in non-accessed EAN deleting job (#105 in Z1 mode)
With the execution of EAN deleting job, you can delete EANs that have not been accessed during the period that is programmed in the job #2029.

Example

Key operation

2010 [•] [⊗]
5012345678900 [⊗]
1 [ST]
[TL]

Print

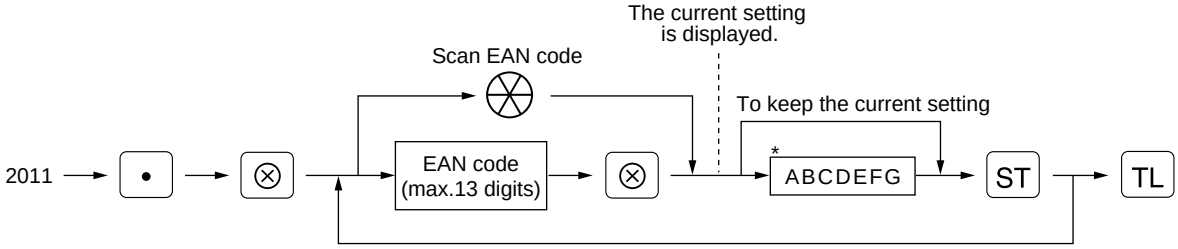


Delete method
(Inhibit to delete by job#105 in Z1 mode)
In case of “delete”, no mark is printed.

When “delete now” is selected:

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

Procedure



*:	Item:		Selection:	Entry:
	A	Sign (+/-)	Minus	1
			Plus	0
	B	VAT6 or TAX6	Yes	1
			No	0
	C	VAT5 or TAX5	Yes	1
			No	0
	D	VAT4 or TAX4	Yes	1
			No	0
	E	VAT3 or TAX3	Yes	1
			No	0
	F	VAT2 or TAX2	Yes	1
			No	0
	G	VAT1 or TAX1	Yes	1
			No	0

Note

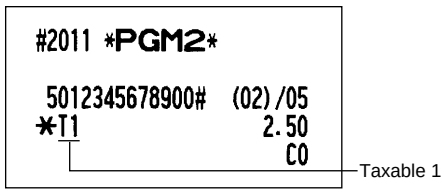
- *The tax system of your machine has been factory–set to automatic VAT1–6. If you desire to select any of automatic tax 1–6, manual VAT1–6, manual VAT1, manual tax 1–6, and the combination of the automatic VAT 1–3 and the automatic tax 4–6, consult your dealer.*
- *When the combination of the automatic VAT1–3 and automatic tax 4–6 system is selected, one of the VAT1(G), VAT2(F) and VAT3(E) can be selected in combination with tax 4–6.*
  Example: BCDEFG= 100100, 110100, 111010
- *An EAN not programmed for any of these tax statuses is registered depending on the tax status of the department which the EAN belongs to.*

Example

Key operation

2011 [•] [⊗]
5012345678900 [⊗]
0000001 [ST]
[TL]

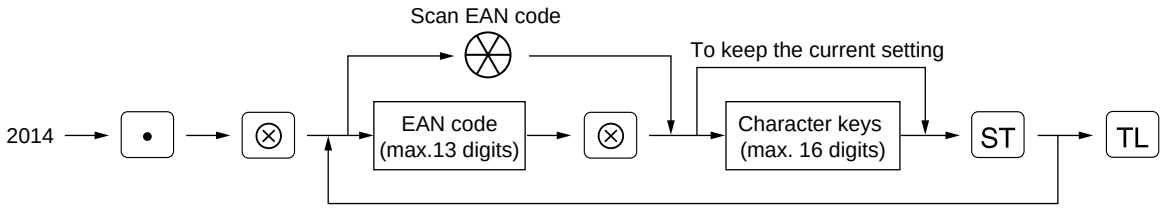
Print



■ Alphanumeric characters PGM 2 2014

You can program a maximum of 16 characters (item label) for each EAN. (However, the default setting is for a 12-character label.) Select the characters you want to program, referring to section “2 How to program alphanumeric characters” in chapter “PRIOR TO PROGRAMMING”.

Procedure

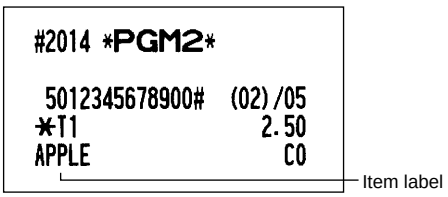


Example

Key operation

2014 [•] [⊗]
5012345678900 [⊗]
APPLE [ST]
[TL]

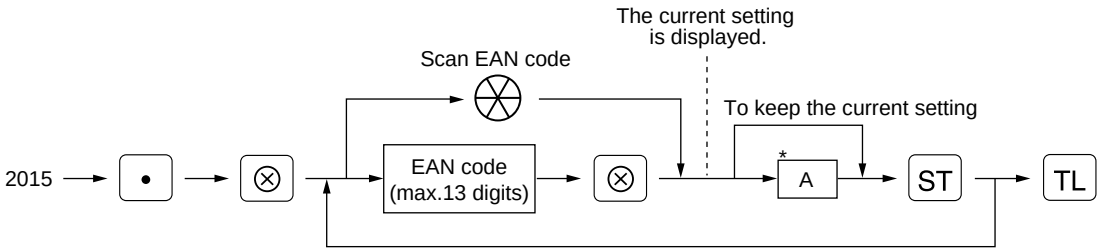
Print



■ Assigning of EANs to commission groups PGM 2 2015

You can assign EANs to commission groups.

Procedure



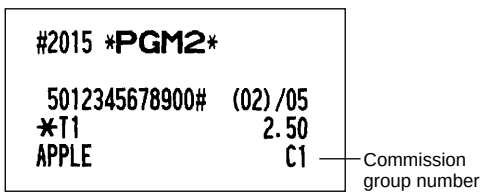
*A : Commission group 0-9 (0=no commission)

Example

Key operation

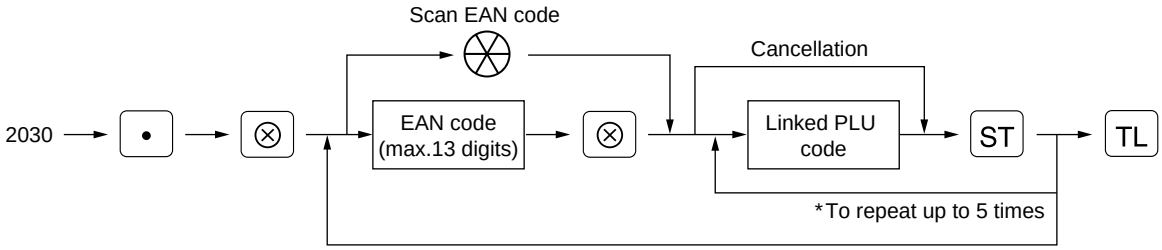
2015 [•] [⊗]
5012345678900 [⊗]
1 [ST]
[TL]

Print



■ EAN 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

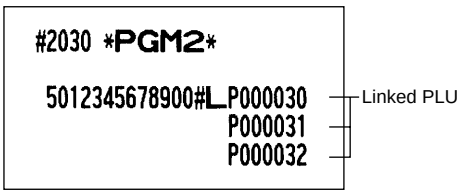
- *To program this function, please consult your dealer.*
- *EAN code and PLU code must have been already defined.*

Example

Key operation

2030 • ⊗
5012345678900 ⊗
30 ST
31 ST
32 ST
TL

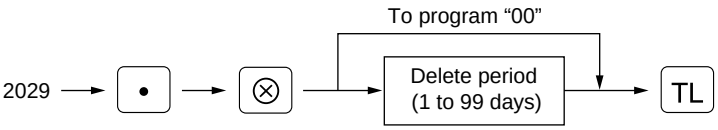
Print



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

You can delete the EAN 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 EAN deleting job” in the EAN delete method (#2010).

Procedure



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

Example

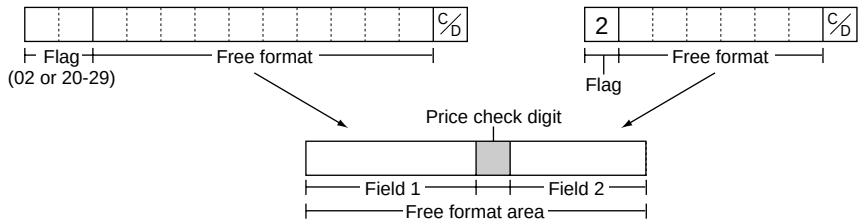
Key operation

2029 • ⊗
60 TL

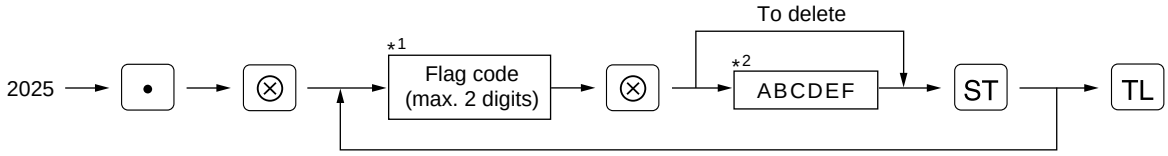
Print

■ 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

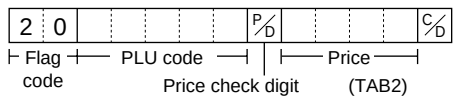
*2

Item:		Selection:	Entry:
A	Length of field 1 (number of digits)		0 - 9
B	Length of field 2 (number of digits)		0 - 9
C	Meaning of field 1*3	Free code	2
		Dept. code	1
		PLU code	0
D	Meaning of field 2*4	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 select Dept. code, the sales are counted up as the sales of the department (associated department assignment is ignored.), and when you select PLU code, the sales are counted up as the sales of the PLU code, while they are counted up as EAN sales for sales reports.

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

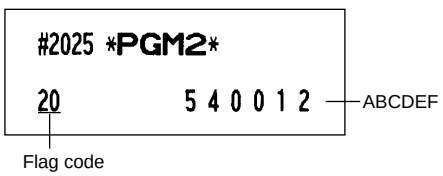
Example



Key operation

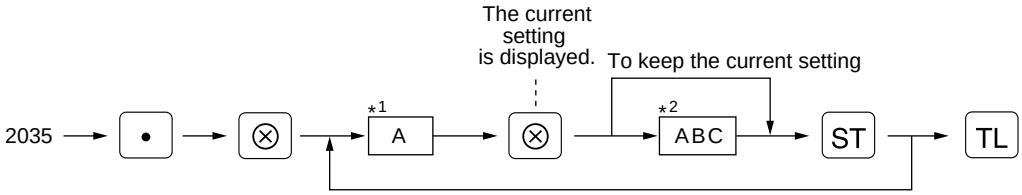
2025 • ⊗
20 ⊗
540012 ST
TL

Print



■ Press code functional programming PGM 2 2035

Procedure



*1 Type of prefix code
1: German type 1 (prefix code: 434/439)
2: U.K. (prefix code: 988/989)
3: France (prefix code: 378/379)
4: Sweden (prefix code: 7388)
5: German type 2 (prefix code: 414/419)

*2

Item:		Selection:	Entry:
A	Type of code	Normal EAN code	0
		Press code	1
B	Price entry method for press code*3	Using the encoded price	0
		Using the EAN programmed price in the job #1010	1
		Compulsory	2
C	Label of record in EAN file*3*4	Prefix only	0
		Prefix + article code	1

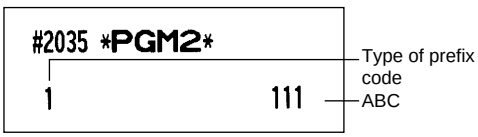
*3: This setting is valid only when “press code” is set for item A.
*4: Select “prefix only” when you want to summarize the sales of items having press codes by category. Select “prefix + article code” when you want to summarize the sales of items having press codes by each item.

Example

Key operation

2035 • ⊗
1 ⊗
111 ST
TL

Print



7 Programming for miscellaneous keys

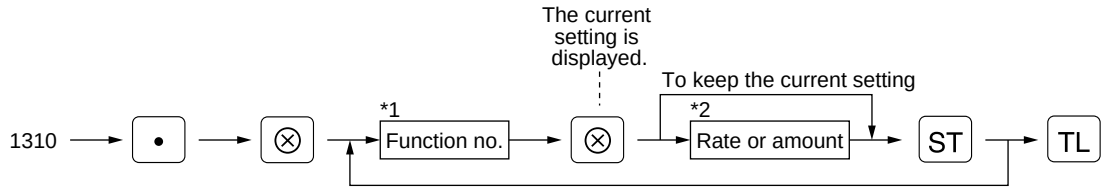
Only function keys which you have programmed on the keyboard will allow the programming.

■ Programming the rate ([%], [EX], commission) and the deduction ([⊖]) PGM 1

PGM 2 **1310** **Direct**

You can program percent rates, currency exchange rates, deduction amounts and commission rates.

Procedure



*1: Function no.

1: For the [⊖] key	8: For the [%4] key	78: For the commission sale 4
2: For the [⊖2] key	52: For the [EX1] key	79: For the commission sale 5
3: For the [⊖3] key	53: For the [EX2] key	80: For the commission sale 6
4: For the [⊖4] key	54: For the [EX3] key	81: For the commission sale 7
5: For the [%1] key	75: For the commission sale 1	82: For the commission sale 8
6: For the [%2] key	76: For the commission sale 2	83: For the commission sale 9
7: For the [%3] key	77: For the commission sale 3	

*2: Rate or amount
0 — 999999 (Deduction amount)
0.00 — 100.00 (% rate)
0.000000 — 999.999999 (Currency exchange rate)
0.00 — 999.99 (Commission rate)

Note

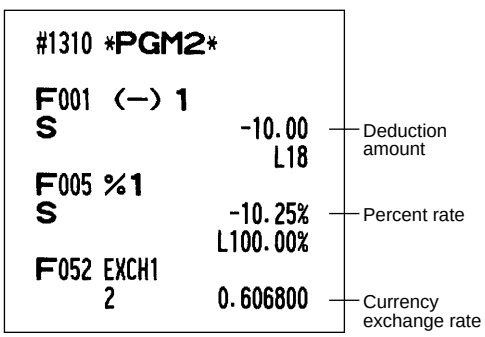
- *When you introduce EURO, set the EURO conversion rate on the [EX1] key for the period 1 and the period 2.*
- *You must use a decimal point when setting percentage rates that are fractional.*

Example

Key operation

1310 [•] [⊗]
1 [⊗] 1000 [ST]
5 [⊗] 10 [•] 25 [ST]
52 [⊗] 0 [•] 6068 [ST]
[TL]

Print

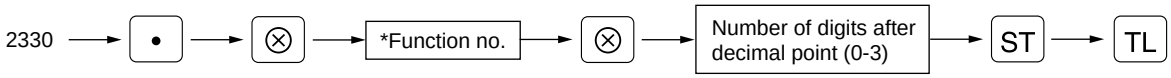


■ Programming the number of digits after decimal point for exchange keys

PGM 2 **2330**

Note *When you introduce EURO on your register, this setting for the [EX1] is automatically programmed by execution of Job #800 in the X2/Z2 mode.*

Procedure



*: Function no.

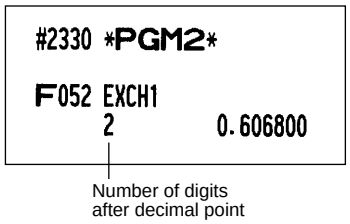
52: For the [EX1] key 54: For the [EX3] key
53: For the [EX2] key 55: For the [EX4] key

Example

Key operation

2330 • ⊗
52 ⊗
2 ST
TL

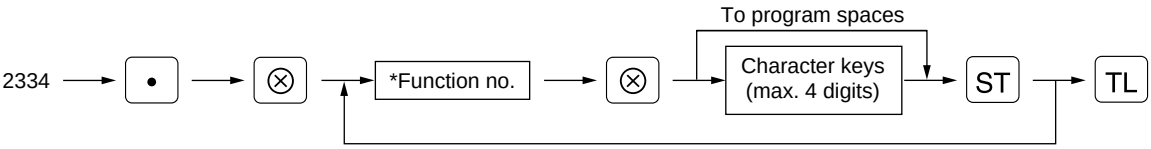
Print



■ Currency description text programming **PGM 2** **2334**

You can program a maximum of 4 characters for each of the [EX1] through [EX4] keys.

Procedure



*: Function no.

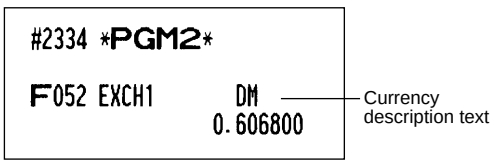
52: For the [EX1] key 54: For the [EX3] key
53: For the [EX2] key 55: For the [EX4] key

Example

Key operation

2334 • ⊗
52 ⊗
[SPACE] [SPACE] DM ST
TL

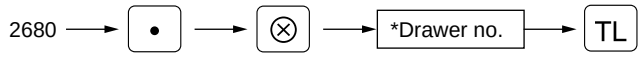
Print



■ Assigning the drawer number to the drawer for foreign currency PGM 2 2680

You can assign a number of the drawer which opens when one of the following operations is performed.
- One of [EX1] through [EX4] is pressed without any entry.
- A transaction is completed with a payment entry of foreign currency.
- An X/Z report is issued.

Procedure



*Drawer no.:
0: Inhibit (No drawer opens.)
1: Drawer no. 1
2: Drawer no. 2

Example

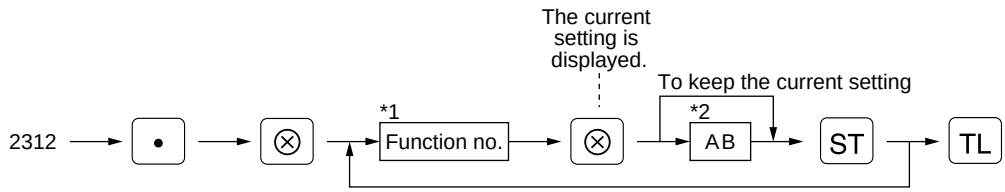
Key operation	Print
2680 [•] [⊗] 2 [TL]	#2680 *PGM2* 2

Note *To perform this programming, an optional drawer must be connected with your register.*

■ A limit amount (HALO) of entry ([⊖], [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 [⊖] key	37: For the [RA] key
2: For the [⊖2] key	38: For the [RA2] key
3: For the [⊖3] key	39: For the [PO] key
4: For the [⊖4] key	40: For the [PO2] 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 8)

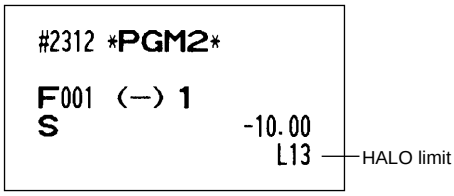
For example, presetting 13 (10.00) here means that amount entries of up to 10.00 are allowed in the REG mode. When you press 18, however, the upper limit amount is 999999.99.

Example

Key operation

2312 [•] [⊗]
1 [⊗] 13 [ST]
[TL]

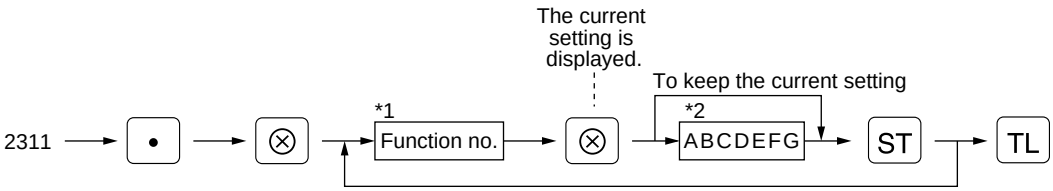
Print



■ +/- sign ([%], [⊖]) PGM 2 2311 Direct

Programming of the +/- sign assigns the premium or discount function for each key.

Procedure



*1: Function no.

1: For the [⊖] key	5: For the [%1] key
2: For the [⊖2] key	6: For the [%2] key
3: For the [⊖3] key	7: For the [%3] key
4: For the [⊖4] key	8: For the [%4] key

*2:

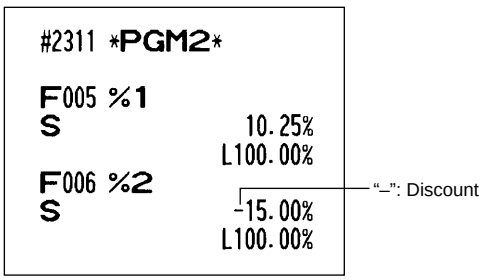
Item:		Selection:	Entry:
A	+/- sign	+ (premium) sign	0
		- (discount) sign	1
B to **G**	Always enter 0.		0

Example

Key operation

2311 [•] [⊗]
5 [⊗] 0000000 [ST]
6 [⊗] 1000000 [ST]
[TL]

Print



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

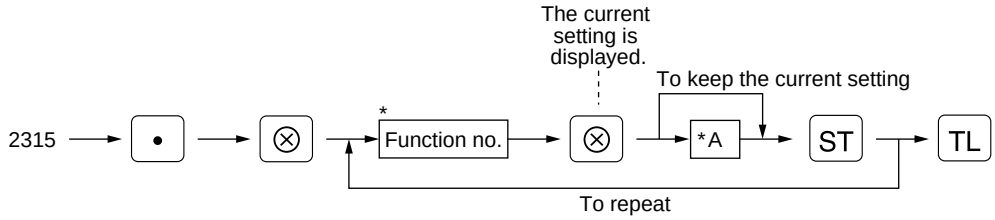
Item %

Select this when a percent calculation is desired for the individual department, PLU and EAN.

Subtotal %

Select this when a percent calculation is desired for subtotals.

Procedure



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

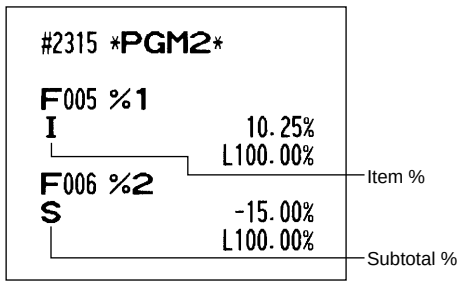
*A:
- 0: Subtotal %
- 1: Item %

Example

Key operation

2315 • ⊗
5 ⊗ 1 ST
6 ⊗ 0 ST
TL

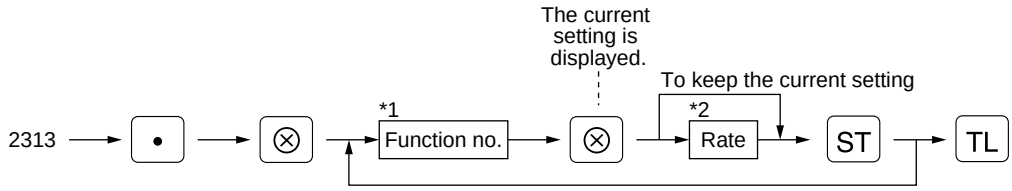
Print



■ Percent rate limitation (%) PGM 2 2313

You can program the upper limit of percent rates for percent entries.
(Percent entries that exceed 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.)

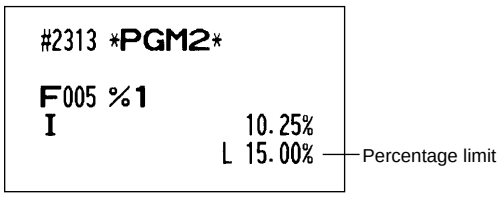
Note *10.00% can be entered as 1 0 or 1 0 • 0 0. The • key is needed only for fractional entry.*

Example

Key operation

2313 [•] [⊗]
5 [⊗] 15 [•] 00 [ST]
[TL]

Print



■ Item ⊖ or subtotal ⊖ selection ([⊖]) PGM 2 2316

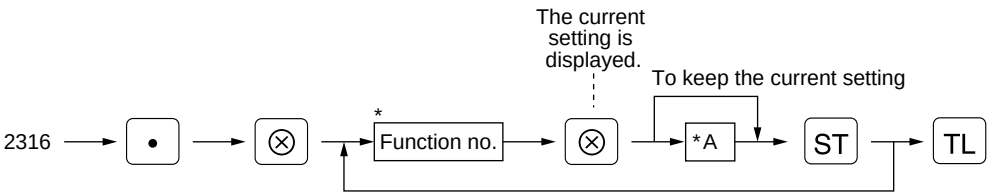
Item ⊖

Select this when a deduction calculation is desired for the individual department, PLU and EAN.

Subtotal ⊖

Select this when a deduction calculation is desired for subtotals.

Procedure



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

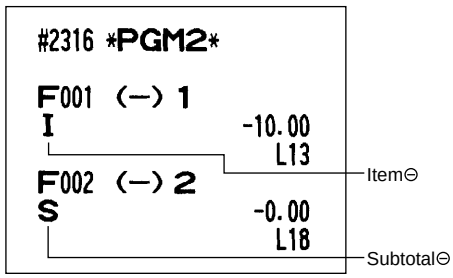
*A:
0: Subtotal ⊖
1: Item ⊖

Example

Key operation

2316 [•] [⊗]
1 [⊗] 1 [ST]
2 [⊗] 0 [ST]
[TL]

Print



8 Programming for the TL, CA2, CH1 through CH4, and CR1 through CR4 keys

■ Functional programming PGM 2 2320

You can set each media for:

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 made.

Change enable (over-tender)

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

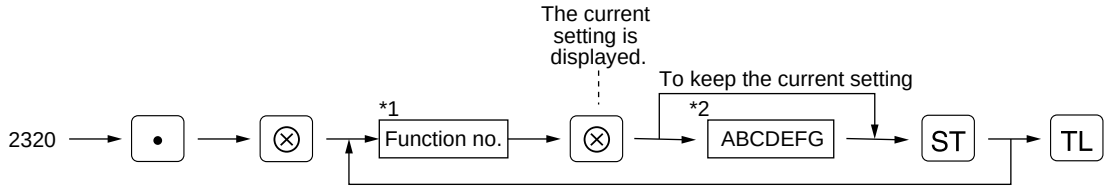
Drawer open

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 TL, CA2 and CH1 through CH4 keys.
You may select amount tendered compulsory or inhibited for the CR1 through CR4 keys.

Procedure



*1: Function no.

42: For the TL key	46: For the CH3 key	50: For the CR3 key
43: For the CA2 key	47: For the CH4 key	51: For the CR4 key
44: For the CH1 key	48: For the CR1 key	
45: For the CH2 key	49: For the CR2 key	

*2

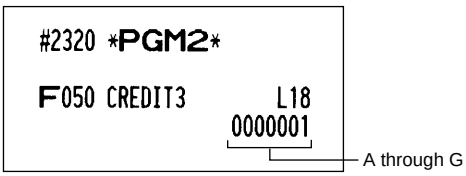
Item:		Selection:	Entry:
A	Always enter 0.		0
B	Footer print	Yes	1
		No	0
C	Non-add code	Compulsory	1
		Non-compulsory	0
D	Change due	Disable	1
		Enable	0
E	Always enter 0.		0
F	Drawer open	No	1
		Yes	0
G	Amount tendered entry	Compulsory	1
		Non-compulsory for TL, CA2 or CH1 through CH4 keys	0
		Inhibit for the CR1 through CR4 keys	0

Example

Key operation

2320 [•] [⊗]
50 [⊗] 0000001 [ST]
[TL]

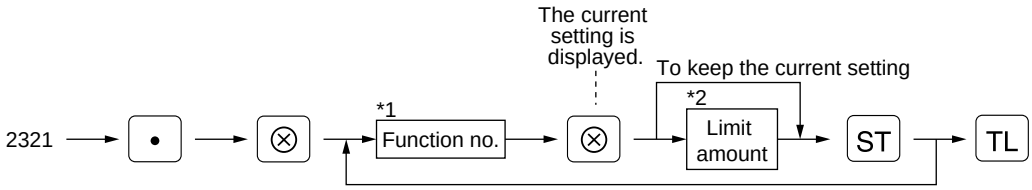
Print



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

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

Procedure



*1: Function no.
41: For cheque cashing
66: For cheque change
63: For cash in drawer (Sentinel)

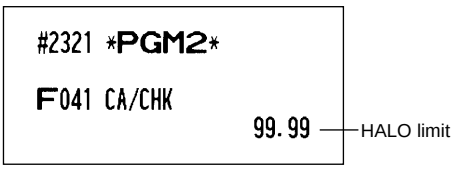
*2: Limit amount
0 through 999999.99
(Cheque change and cheque cashing)
0 through 9999999.99 (Cash in drawer)

Example

Key operation

2321 [•] [⊗]
41 [⊗] 9999 [ST]
[TL]

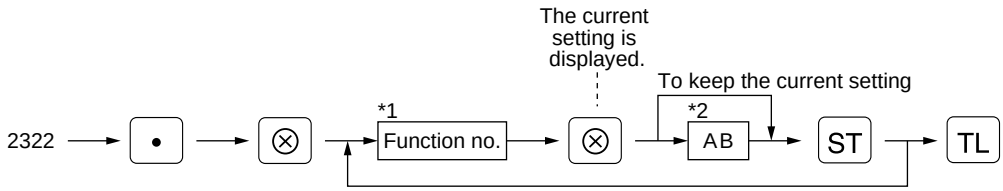
Print



■ 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.
- 42: For the TL key
- 43: For the CA2 key
- 44: For the CH1 key
- 45: For the CH2 key
- 46: For the CH3 key
- 47: For the CH4 key
- 48: For the CR1 key
- 49: For the CR2 key
- 50: For the CR3 key
- 51: For the CR4 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)

When you press 18, however, the upper limit amount is 999999.99.

Example

Key operation

2322 • ⊗
50 ⊗ 15 ST
TL

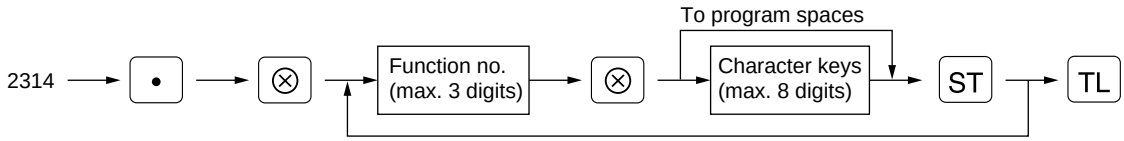
Print

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. Select the characters you want to program referring to section “2 How to program alphanumeric characters” in chapter “PRIOR TO PROGRAMMING.”

Procedure



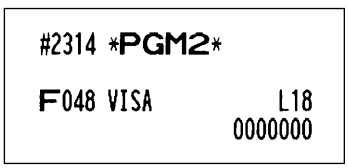
* Function no.: See “List of function texts” on the following pages.

Example

Key operation

2314 • ⊗
48 ⊗ VISA ST
TL

Print



■ List of function texts

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	Differ	DIFFER
10	Taxable 1 subtotal	TAX1 ST
11	Taxable 2 subtotal	TAX2 ST
12	Taxable 3 subtotal	TAX3 ST
13	Taxable 4 subtotal	TAX4 ST
14	Taxable 5 subtotal	TAX5 ST
15	Taxable 6 subtotal	TAX6 ST
16	VAT/tax 1	VAT 1
17	VAT/tax 2	VAT 2
18	VAT/tax 3	VAT 3
19	VAT/tax 4	VAT 4
20	VAT/tax 5	VAT 5
21	VAT/tax 6	VAT 6
22	Net 1	**NET1**
23	Net 2	**NET2**
24	Coupon-like PLU	CP PLU
25	Refund	REFUND
26	Void	∞
27	Void mode total	∞ MODE
28	MGR void	MGR∞
29	Subtotal void	SBTL∞
30	Hash void	HASH∞
31	Hash refund	HASH RF
32	VAT shift	VAT SFT
33	VAT/tax delete	TAX DELE
35	No sale	NO SALE
36	Guest check counter	G.C. CNT
37	RA	∗∗∗RA
38	RA2	∗∗∗RA2
39	PO	∗∗∗PO
40	PO2	∗∗∗PO2
41	Cheque cashing	CA/CHK
42	Cash	**C**ASH
43	Cash 2	**C**ASH2
44	Cheque 1	CHECK
45	Cheque 2	CHECK2
46	Cheque 3	CHECK3
47	Cheque 4	CHECK4
48	Credit 1	CREDIT1

Function no.	Key or function	Default setting
49	Credit 2	CREDIT2
50	Credit 3	CREDIT3
51	Credit 4	CREDIT4
52	Exchange 1	EXCH1
53	Exchange 2	EXCH2
54	Exchange 3	EXCH3
55	Exchange 4	EXCH4
56	Exchange 1 is	EXCH1 IS
57	Exchange 2 is	EXCH2 IS
58	Exchange 3 is	EXCH3 IS
59	EX1 check sale	EX1 CHK
60	Domestic currency for EX1 check sale	DOM.CUR1
61	EX1 credit sale	EX1 CR.
62	Domestic currency for EX1 credit sale	DOM. CUR
63	Cash in drawer	∗∗∗∗CID
64	Cash/cheque is	CA/CH IS
65	Cash/cheque in drawer	CA/CH ID
66	Change for cheque	CHK/CG
67	Customer	GUEST
68	Order total	ORDER TL
69	Paid total	PAID TL
70	Domestic currency 1	DOM.CUR1
71	Domestic currency 2	DOM.CUR2
72	Domestic currency 3	DOM.CUR3
73	Domestic currency 4	DOM.CUR4
74	Cheque in drawer	∗CH ID
75	Commission sale 1	COM.SAL1
76	Commission sale 2	COM.SAL2
77	Commission sale 3	COM.SAL3
78	Commission sale 4	COM.SAL4
79	Commission sale 5	COM.SAL5
80	Commission sale 6	COM.SAL6
81	Commission sale 7	COM.SAL7
82	Commission sale 8	COM.SAL8
83	Commission sale 9	COM.SAL9
84	Non commission sale	NON.COM
85	(+) Dept total	∗DEPT TL
86	(-) Dept total	DEPT (-)
87	Hash (+) total	∗HASH TL
88	Hash (-) total	HASH (-)
89	Bottle return (+) total	∗BTTL TL
90	Bottle return (-) total	BTTL (-)
91	Net 1 (Taxable 1 - VAT/tax 1)	NET 1
92	Net 2 (Taxable 2 - VAT/tax 2)	NET 2
93	Net 3 (Taxable 3 - VAT/tax 3)	NET 3
94	Net 4 (Taxable 4 - VAT/tax 4)	NET 4
95	Net 5 (Taxable 5 - VAT/tax 5)	NET 5

Function no.	Key or function	Default setting
96	Net 6 (Taxable 6 - VAT/tax 6)	NET 6
97	Subtotal	SUBTOTAL
98	Merchandise subtotal	MDSE ST
99	Difference subtotal	DIFF ST
100	Total	✱✱✱TOTAL
101	Change	CHANGE
102	Sales q'ty	ITEMS
103	Link PLU and EAN link subtotal	ITEM ST
104	Copy receipt title	**COPY**
105	Guest check copy title	G.C COPY
106	Average	AVE.
107	Group 1 for departments	**G**ROUP01
108	Group 2 for departments	**G**ROUP02
109	Group 3 for departments	**G**ROUP03
110	Group 4 for departments	**G**ROUP04
111	Group 5 for departments	**G**ROUP05
112	Group 6 for departments	**G**ROUP06
113	Group 7 for departments	**G**ROUP07
114	Group 8 for departments	**G**ROUP08
115	Group 9 for departments	**G**ROUP09
116	CCD	**CCD**
117	CCD differ	CCD DIF.
118	CCD differ total	DIF. TL
119	Order total-Paid total	**O - P**
120	Total tax	TTL TAX
121	Net without tax	**NET**

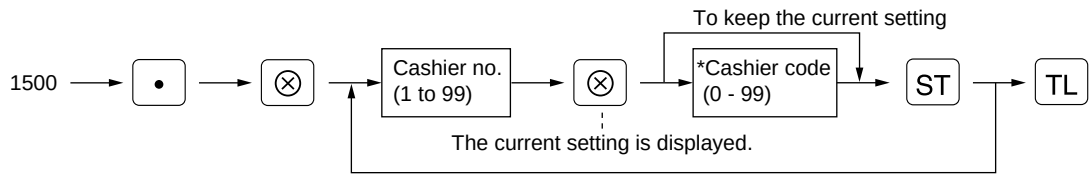
Function no.	Key or function	Default setting
122	Commission amount 1	COM.AMT1
123	Commission amount 2	COM.AMT2
124	Commission amount 3	COM.AMT3
125	Commission amount 4	COM.AMT4
126	Commission amount 5	COM.AMT5
127	Commission amount 6	COM.AMT6
128	Commission amount 7	COM.AMT7
129	Commission amount 8	COM.AMT8
130	Commission amount 9	COM.AMT9
131	Commission amount total	COM.TTL
132	Department report title	**DEPT**
133	Group report title	GROUP
134	PLU report title	**PLU**
135	Transaction report title	TRANS.
136	Total in drawer report title	TL-ID
137	Clerk report title	CLERK
138	Cashier report title	CASHIER
139	Hourly report title	HOURLY
140	Daily net report title	DAILY
141	PLU zero sales report title	ZERO SAL
142	PLU price category report title	CATEGORY
143	Commission sales report title	SALES
144	EAN report title	**EAN**
145	EAN price change	PR.CHNG
146	Non accessed EAN report title	DELETE

10 Cashier and clerk programming

■ Cashier code PGM 1 PGM 2 1500

You can assign a cashier code to each cashier. (If the cashier's file is upgraded, a maximum of 99 cashiers can be programmed. Consult your dealer.)

Procedure



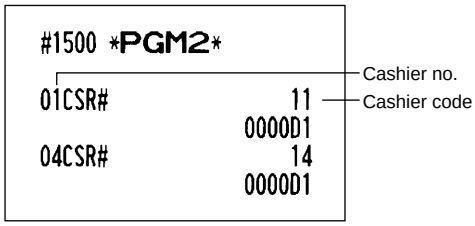
* Programming cashier code "0" inhibits entries of the cashier code.

Example

Key operation

1500 [•] [⊗]
1 [⊗] 11 [ST]
4 [⊗] 14 [ST]
[TL]

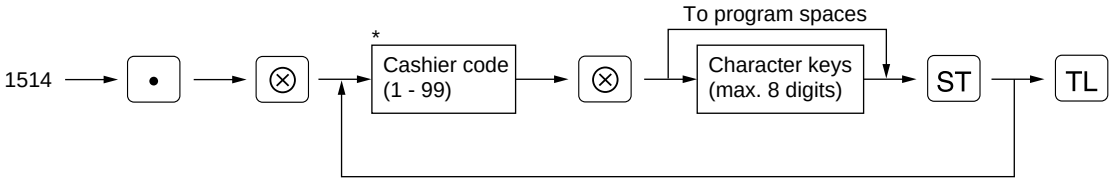
Print



■ Cashier name PGM 1 PGM 2 1514

You can program a maximum of 8 characters (cashier name) for each cashier. Select the characters you want to program referring to section “2 How to program alphanumeric characters” in chapter “PRIOR TO PROGRAMMING.”

Procedure



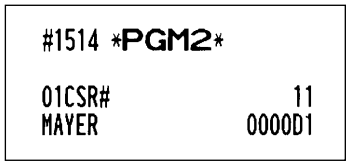
*: A cashier code you have programmed for the cashier by job code 1500

Example

Key operation

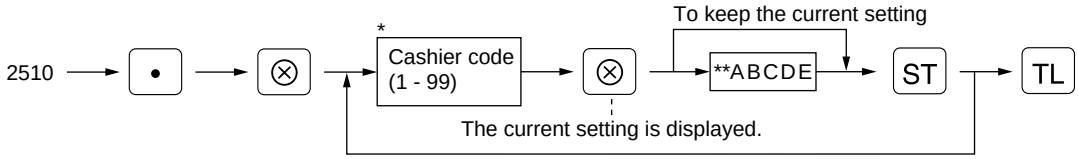
1514 [•] [⊗]
11 [⊗] MAYER [ST]
[TL]

Print



■ Functional programming for cashiers PGM 2 2510

Procedure



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

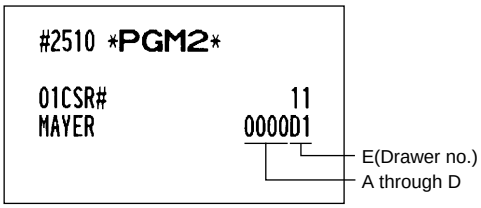
** Item:		Selection:	Entry:
A	Guest check copy	Disable	1
		Enable	0
B	VAT shift	Yes	1
		No	0
C and **D**	Always enter 0.		0
E	Drawer	Set the drawer no. 1 or 2	1 or 2
		Use no drawer	0

Example

Key operation

2510 [•] [⊗]
11 [⊗] 00001 [ST]
[TL]

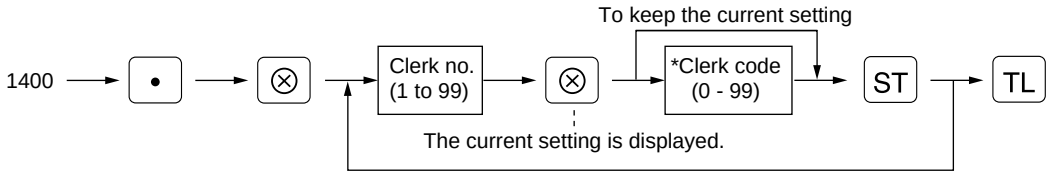
Print



■ Clerk code PGM 1 PGM 2 1400

You can assign a clerk code to each of 99 clerks. The standard machine has no clerk function. If you need this function, consult your dealer.

Procedure



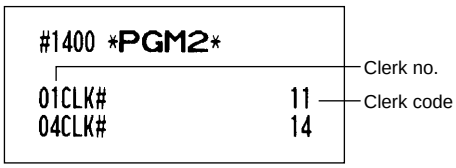
*: Programming clerk code “0” inhibits entries of the clerk code.

Example

Key operation

1400 [•] [⊗]
1 [⊗] 11 [ST]
4 [⊗] 14 [ST]
[TL]

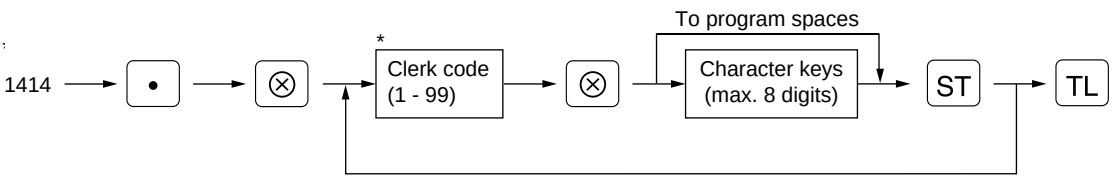
Print



■ Clerk name PGM 1 PGM 2 1414

You can program a maximum of 8 characters (clerk name) for each clerk. Select the characters you want to program referring to section “2 How to program alphanumeric characters” in chapter “PRIOR TO PROGRAMMING.”

Procedure



*: A clerk code you have programmed for the clerk by the job code 1400

Example

Key operation

1414 [•] [⊗]
11 [⊗] NILS [ST]
[TL]

Print

11 Programming various functions

■ Programming for optional feature selection PGM 2 2616

OP X/Z mode availability

When a cashier needs to take the cashier/clerk X or Z report, he or she will use the OP X/Z mode. This programming determines whether he or she will be allowed to use this mode.

Note *You can take cashier/clerk X and Z reports in the X1/Z1 mode regardless of the above programming.*

Paid out in the REG-mode
Refund key in the REG-mode
Direct void in the REG-mode
Indirect void in the REG-mode
Subtotal void in the REG-mode
First item direct void
Printing of the number of purchased items
Journal print form

You may choose either of the following forms.

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

Zero skip for various reports
VAT/tax amount, taxable amount and net amount printing on the receipt/journal
VAT shift type

VAT shift by cashier: VAT shift is performed by the operation of a cashier who has been assigned to do the VAT shift operation (Refer to job# 2510).
VAT shift by shift key: VAT shift is performed by pressing the VAT shift key.

No sale in REG-mode
Finalization when the subtotal amount is zero in the REG mode
Exchange 1 calculation method (for EURO settings)

When you do not introduce EURO, keep the default setting (multiplication).
When you introduce EURO, this setting is automatically set by the operation of job #800 in the X2/Z2 mode.
The calculation method is as follows:
In case that "Division" is selected for the period 1,
Domestic currency amount (national currency amount) ÷ Exchange 1 rate (EURO conversion rate) = Exchange 1 amount (EURO amount)
In case that "Multiplication" is selected for the period 2,
Domestic currency amount (EURO amount) × Exchange 1 rate (EURO conversion rate) = Exchange 1 amount (national currency amount)

Printing of the exchange 1 total amount and change amount on the receipt/journal

Total and change amounts in exchange 1 currency are printed respectively below each of the total and exchange amounts in domestic currency.
When you introduce EURO, this setting is automatically set by the operation of job #800 in the X2/Z2 mode as follows:
On the period 1, EURO amount converted from national currency is printed below the national currency, and on the the period 2, national currency converted from EURO amount is printed.

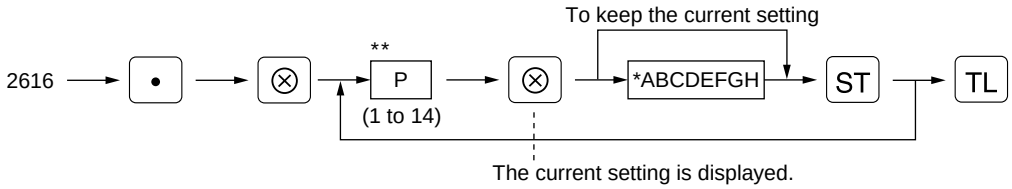
Cash/credit operation for exchange 1

You can set whether you receive foreign currency (exchange 1) amount by cheque or credit or not.

Footer graphic logo printing
Credit counting when received-on-account/paid out finalized with the credit key

Separator line in the report
Link PLU printing on the receipt
EAN learning function
Price change for EAN entry in REG mode
Treatment of EAN 8 code (200XXXXC/D)
Treatment of EAN 13 code (2XXXXXXXXXXXC/D)
Price entry after ISBN or ISSN
Entry of EAN with add-on code when the EAN ADD-ON file is full

Procedure



**P: 1
*

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

**P: 2
*

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

**P: 3
*

Item:		Selection:	Entry:
A	Zero skip in EAN report	Yes	0
		No	1
B	Zero skip in clerk report	Yes	0
		No	1
C	Zero skip in cashier report	Yes	0
		No	1
D	Zero skip in transaction report	Yes	0
		No	1
E	Zero skip in department report	Yes	0
		No	1
F	Zero skip in PLU report	Yes	0
		No	1
G	Zero skip in hourly report	Yes	0
		No	1
H	Zero skip in daily net report	Yes	0
		No	1

**P: 4
*

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

**P: 5
*

Item:		Selection:	Entry:
A to **C**	Always enter 0.		0
D	VAT shift type	By cashier	0
		By shift key	1
E to **H**	Always enter 0.		0

**P: 6 (ABCDEFGH: Always enter 0.)

**P: 7
*

Item:		Selection:	Entry:
A and **B**	Always enter 0.		0
C	No sale in REG-mode	Enable	0
		Disable	1
D	Finalization in the REG-mode	Enable	0
	when the subtotal amount is zero	Disable	1
E to **H**	Always enter 0.		0

**P: 8 (ABCDEFGH: Always enter 0.)

**P: 9

*

Item:		Selection:	Entry:
A	Always enter 0.		0
B	Exchange 1 calculation method	Multiplication	0
		Division	1
C	Cheque/credit operation for exchange 1	No	0
		Yes	1
D	Printing exchange 1 total amount and change amount on receipt and journal	No	0
		Yes	1
E to **G**	Always enter 0.		0
H	Footer graphic logo printing	Yes	1
		No	0

Note *The items B and D are automatically set by the operation of job #800 in the X2/Z2 mode.*

**P: 10

*

Item:		Selection:	Entry:
A and **B**	Always enter 0.		0
C	Learning function for EAN entry	Yes	0
		No	1
D to **H**	Always enter 0.		0

**P: 11 (ABCDEFGH: Always enter 0.)

**P: 12

*

Item:		Selection:	Entry:
A to **G**	Always enter 0.		0
H	Price change for EAN entry in REG mode	Enable	0
		Disable	1

**P: 13

*

Item:		Selection:	Entry:
A	Credit counting when received-on-account/paid out is finalized with the credit key	Yes	1
		No	0
B	Separator line in the report	Separator line	1
		1 line space	0
C	Way to print the information for the link PLU/EAN link on the receipt	Leading link PLU/EAN with total amount	1
		Detailed information	0
D and **E**	Always enter 0.		0
F	Treating the EAN8 code (200XXXXC/D) as PLU type (XXXX:PLU code)	No	1
		Yes	0
G	Treatment of the EAN13 code (2XXXXXXXXXXC/D)	Dept. code	1
		PLU code	0
H	Price entry after ISBN or ISSN	Inhibited	1
		Compulsory	0

**P: 14

*

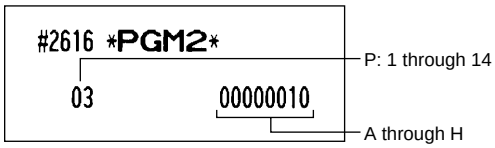
Item:		Selection:	Entry:
A	Always enter 0.		0
B	Entry of EAN with add-on code when EAN	Continued	0
	ADD-ON file is full	Inhibited	1
C to **H**	Always enter 0.		0

Example

Key operation

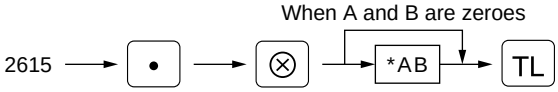
2616 [•] [⊗]
3 [⊗] 00000010 [ST]
[TL]

Print



■ Programming feed line after printing of a difference subtotal PGM 2 2615

Procedure



* A: Always enter 0.
  B: Feed lines after printing of difference subtotal (0 through 9)

Example

Key operation

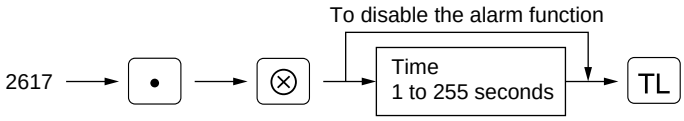
2615 [•] [⊗]
01 [TL]

Print

■ Programming alarm length of time with drawer opening PGM 2 2617

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

Procedure



Example

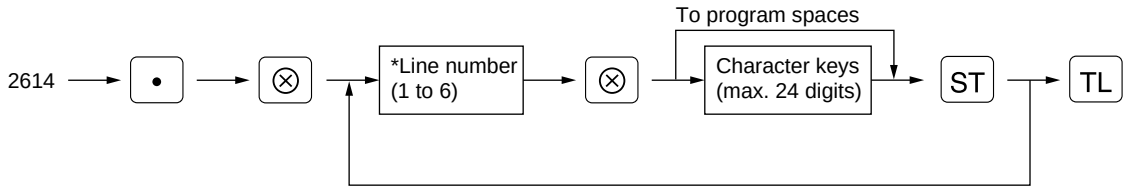
Key operation	Print
2617 • ⊗ 30 TL	#2617 *PGM2* 030

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

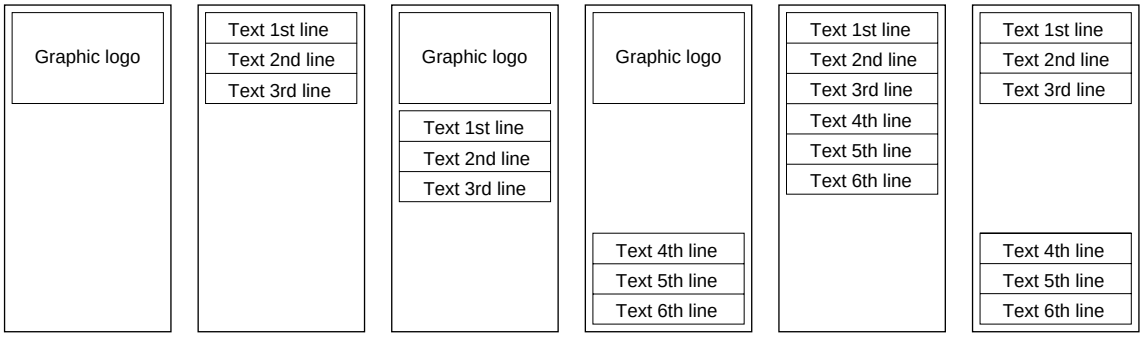
■ Programming of logo messages PGM 2 2614

Your register can print programmed messages for customers on every receipt. On the standard model, only graphic logo is printed on the receipt. (If you want a graphic logo customerized for your store, please consult your dealer.)
If you want to print logo message, please consult your dealer. You have five options described below.
Select the characters you want to program, referring to section “2 How to program alphanumeric characters” in chapter “PRIOR TO PROGRAMMING.”

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)



Default setting | 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 logo messages by using 3 lines:

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

Key operation

2614 • ⊗
1 ⊗ 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 = ST
2 ⊗ SPACE SPACE SPACE SHIFT-2 = SHIFT-2 = SPACE
DC S DC T DC O DC R DC E
SPACE SHIFT-2 = SHIFT-2 = ST
3 ⊗ SPACE SPACE SPACE SPACE
DC M DC E DC S DC S DC A DC G DC E
ST
TL
(SPACE:Space key)

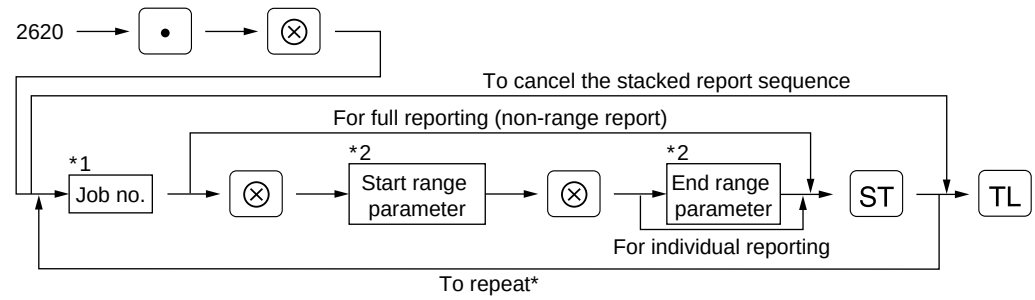
Print

#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 15 reports*. This function continuously prints a maximum of 15 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	EAN zero sales report	X1/X2 mode only	
09	Full EAN report		
10	Full department report	X1/X2 mode only	
13	Full department group report	X1/X2 mode only	
20	PLU report		*3 Start PLU code/end PLU code (1 through 999999)
27	PLU zero sales report	X1/X2 mode only	
29	PLU price category report	X1/X2 mode only	*3 Start price amount/end price amount
30	Transaction report	X1/X2 mode only	
31	Total in drawer report	X1/X2 mode only	
32	Commission sales report		
40	Full clerk report		
50	Full cashier report		
60	Hourly sales information	Range report is available only in the X1 mode.	*3 Start time/end time (0 through 2330)
70	Daily net report	X1/X2 mode only	

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

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

Example

Key operation

2620 • ⊗
10 ST
13 ST
TL

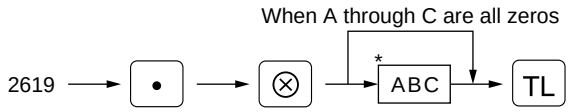
Print

#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

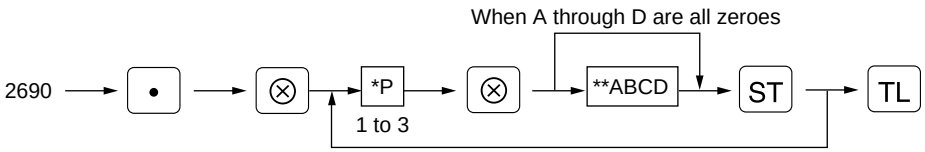
Key operation	Print
2619 • ⊗ 107 TL	#2619 *PGM2* 1 07

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

■ RS-232C channel assignment PGM 2 2690

Your machine is equipped with two RS-232C interfaces. If you use the on-line communication function and/or the barcode reader, the channel number of each RS-232C interface must be programmed by using the following procedure.
To realize the on-line communication and/or to use the barcode reader, consult your dealer.

Procedure



*P: 1

** Item:		Selection:	Entry:
A	Channel no. for the ON-LINE communication	Not connected	0
		Standard port 2	1
		Standard port 1	8
B to D	Always enter 0.		0

*P: 2

** Item:		Selection:	Entry:
A	Channel no. for the barcode reader	Not connected	0
		Standard port 2	1
		Standard port 1	8
B to D	Always enter 0.		0

*P: 3 (ABCD: Not used. Always enter 0.)

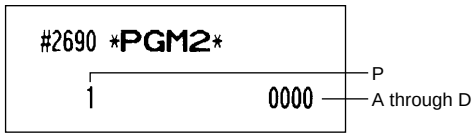
Note *Never enter any number other than 0, 1 and 8.*

Example

Key operation

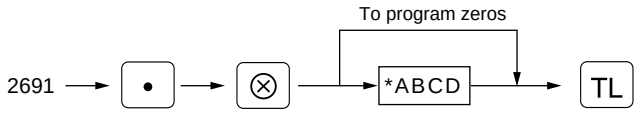
2690 [•] [⊗]
1 [⊗] [ST]
[TL]

Print



■ 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 [•] [⊗]
1110 [TL]

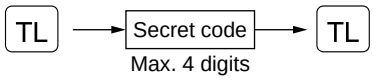
Print

■ 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

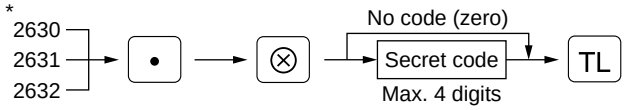
Procedure



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 is performed.*

Programming

Procedure



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

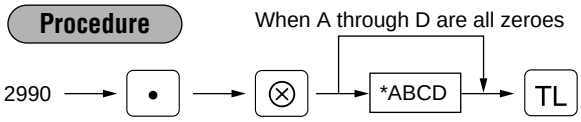
Example

Key operation	Print
2631 • ⊗ 1234 TL	#2631 *PGM2* 1234

■ Functional programming for the printer PGM 2 2990

You can program functions for the printer.

Procedure



*	Item:		Selection:	Entry:
	A	Always enter 1.		1
	B	Always enter 0.		0
	C and **D**	Printing density	80% for standard=00 90% for standard=50 100% for standard=99	00-99

Example

Key operation

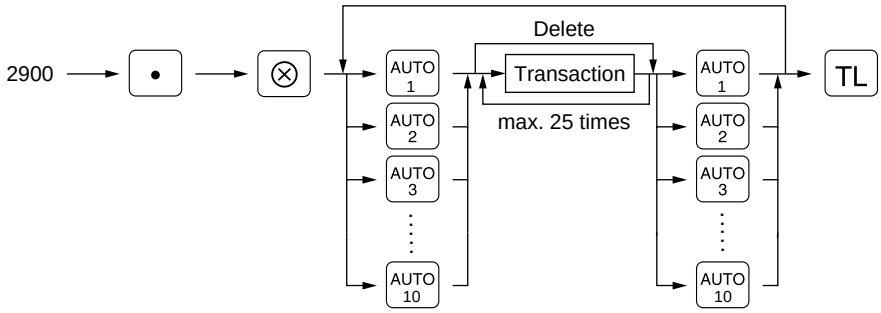
2990 • ⊗
1050 TL

Print

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

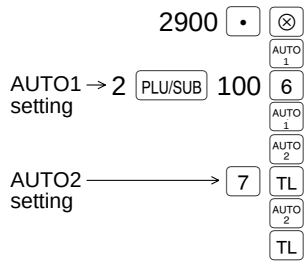
If you program frequently performed transactions or report sequences for the AUTO keys, you can call those transactions and/or reports simply by pressing the corresponding AUTO keys in key operations. This programming can be done when your machine is in the X2/Z2 mode.

Procedure

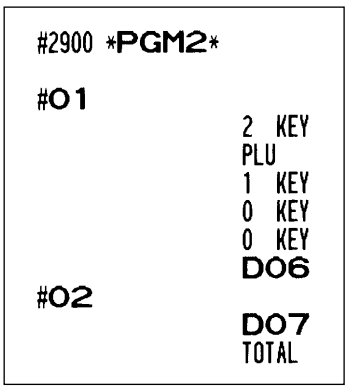


Example Programming for AUTO 1 key and AUTO 2 key as follows:
AUTO 1; entering a PLU 2 item (programmed unit price: 1.50) and a dept. 6 item (unit price: 1.00)
AUTO 2; selling a dept. 7 item (programmed unit price: 5.00) for cash

Key operation



Print

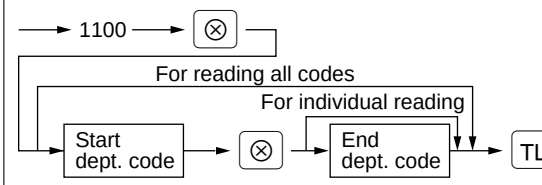
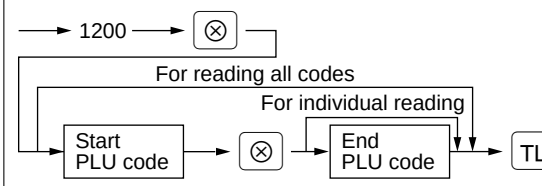
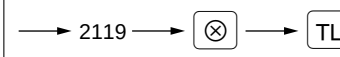
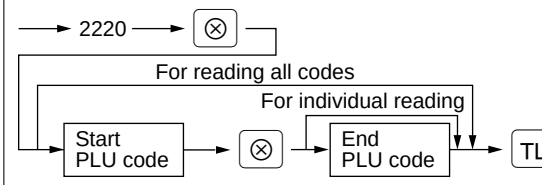
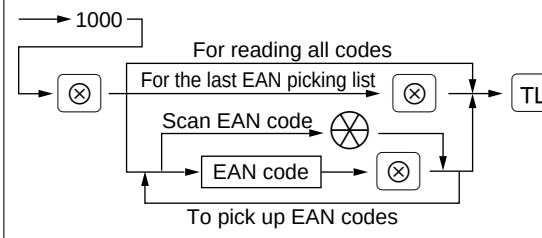
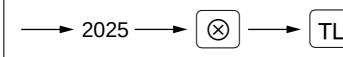
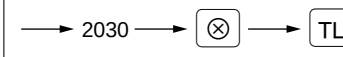
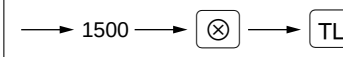
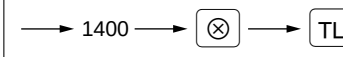
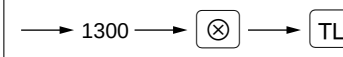
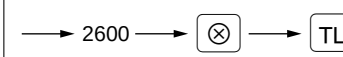


Note *When the AUTO key has been programmed to execute a report job function etc., the mode switch must be in the appropriate position (X1/Z1 or X2/Z2).*

12 Reading stored programs

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

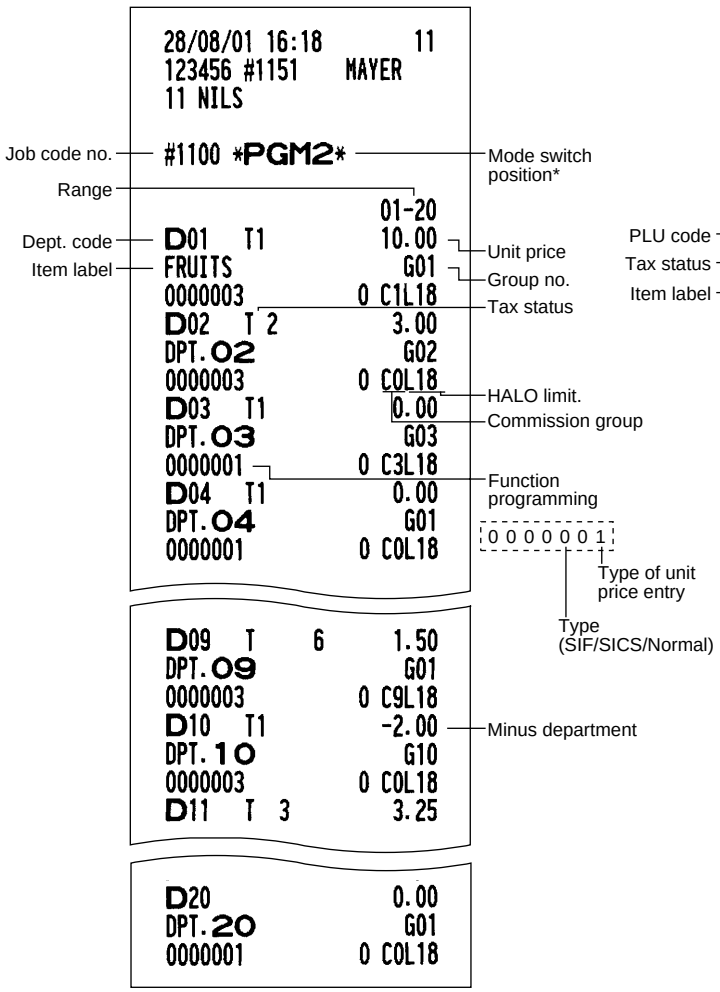
■ Program details and procedures for their reading

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, 2115, 2116
2	PLUs/ subdepartments	PGM2 or PGM1	1200		1200, 1210, 1211, 2210, 2211, 2214, 2215, 2230, 2231, 2232, 2235
3	Key nos. for departments and PLUs	PGM2	2119		2119, 2219
4	Link PLUs	PGM2	2220		2220
5	EANs	PGM1 or PGM2	1000		1000, 1010 1011, 2010 2011, 2014 2015
6	EANs function	PGM2	2025		2025, 2029, 2035
7	EAN link	PGM2	2030		2030
8	Cashiers	PGM2 or PGM1	1500		1500, 1514, 2510
9	Clerks	PGM2 or PGM1	1400		1400, 1414
10	Function preset 1	PGM2 or PGM1	1300		1310, 2311, 2312, 2313, 2314, 2315, 2316, 2320, 2321, 2322, 2330, 2334
11	Function preset 2	PGM2	2600		2614, 2615, 2616, 2617, 2619, 2620, 2630, 2631, 2632, 2680, 2690, 2691

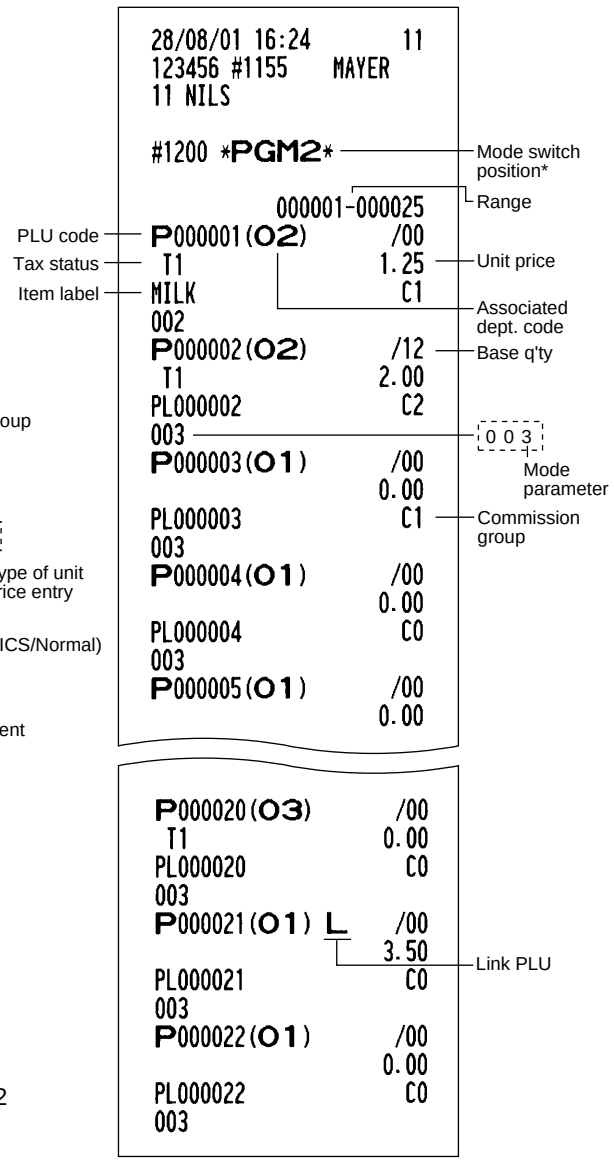
	Program for:	Mode switch position	Job code no.	Procedure	Related PGM1/ PGM2 job code nos.
12	Tax rates	PGM2	2700	→ 2700 → ⊗ → TL	2711
13	Auto keys	PGM2	2900	→ 2900 → ⊗ → TL	2900
14	Thermal printing	PGM2	2990	→ 2990 → ⊗ → TL	2990

■ Sample printouts

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

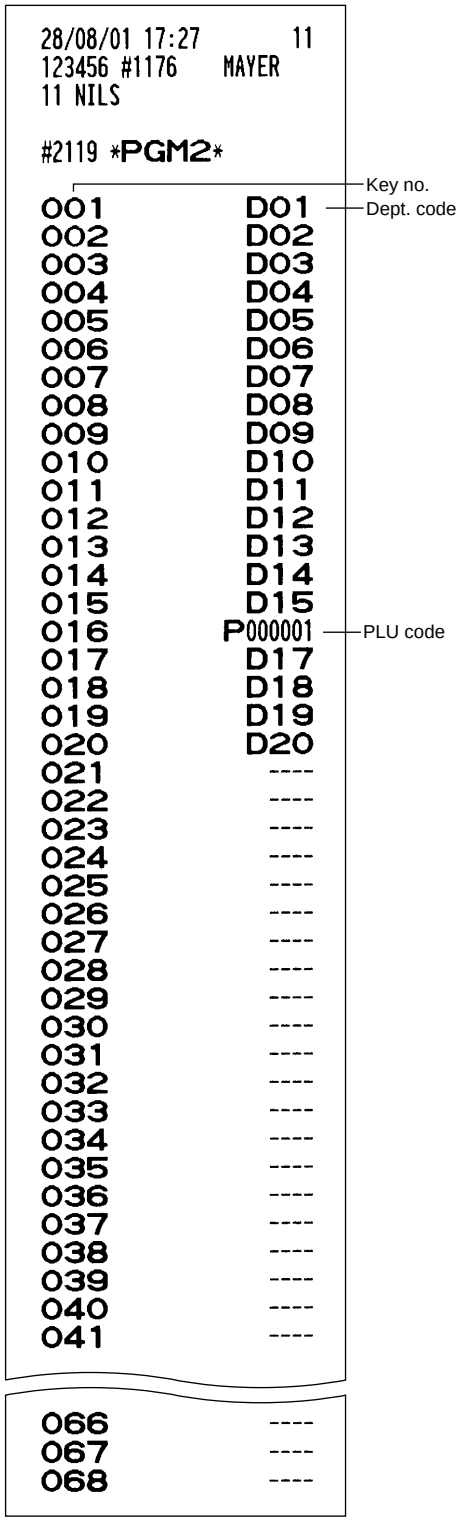


2 Reading of programmed items for PLUs/subdepartments (Reading in the PGM1 and PGM2 modes)

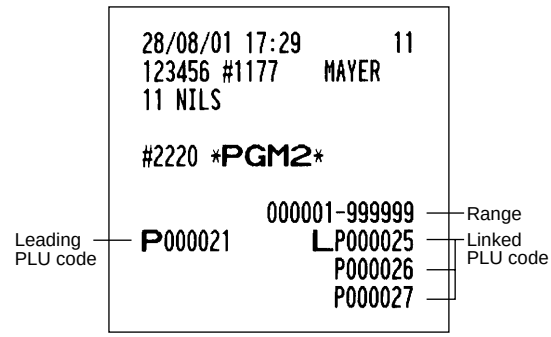


* When you take this report in the PGM1 mode, the PGM2 indication is replaced by a “PGM1”.

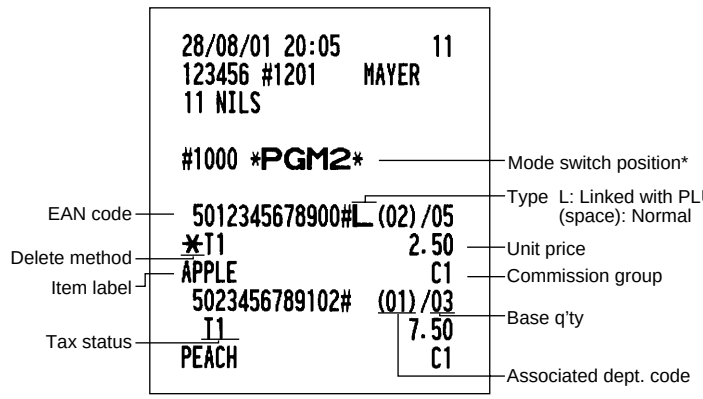
3 Reading of programmed key nos. for departments and PLUs (Reading in the PGM2 mode)



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



5 Reading of programmed items for EANs (1) (Reading in the PGM1 and PGM2 modes)

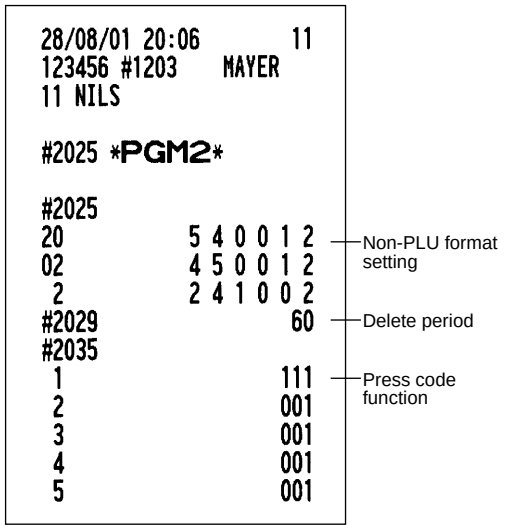


* When you take this report in the PGM1 mode, the PGM2 indication is replaced by a “PGM1”.

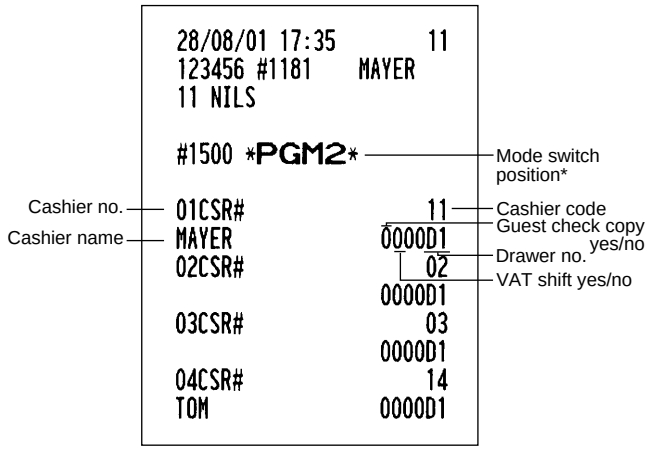
Note *The EAN codes are printed out in the sequence shown below.*

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

6 Reading of programmed items for EANs (2) (Reading in the PGM2 mode)

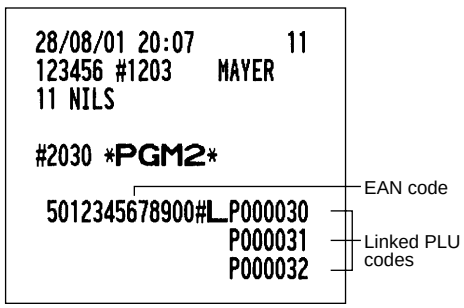


8 Reading of programmed items for cashiers (Reading in the PGM1 and PGM2 modes)

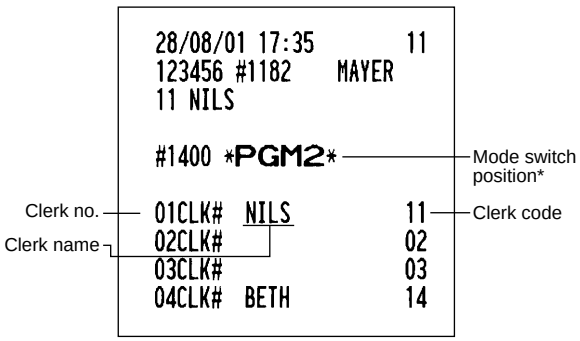


* When you take this report in the PGM1 mode, the PGM2 indication is replaced by a “PGM1”.

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

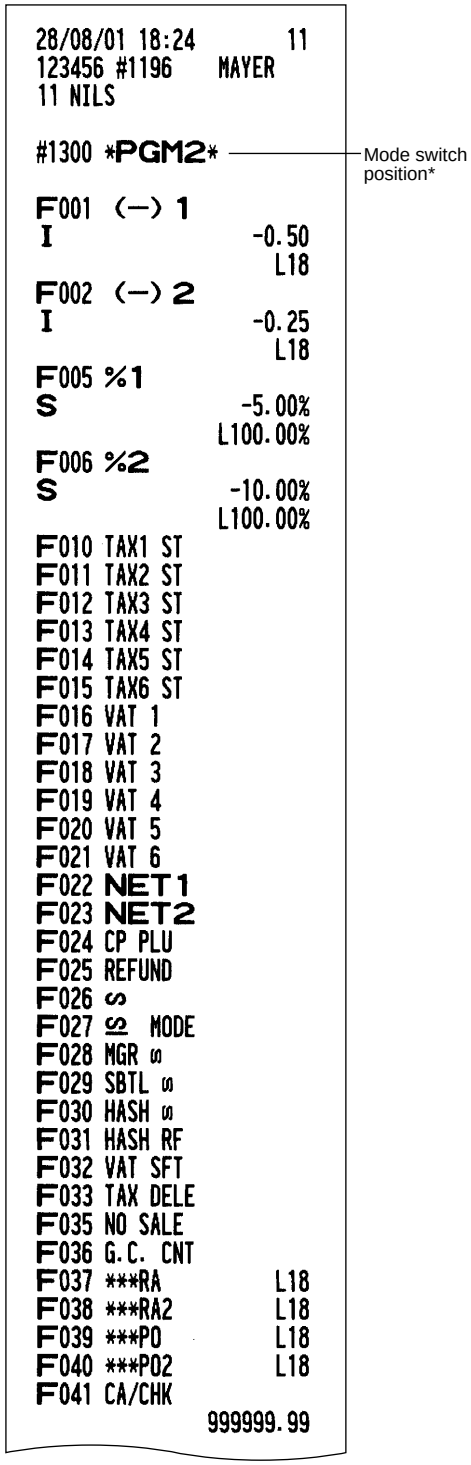


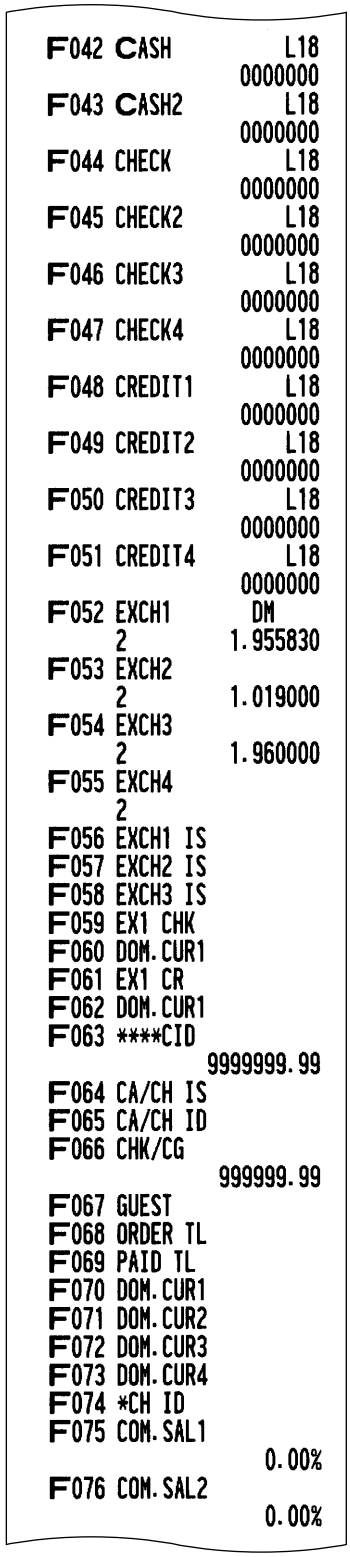
9 Reading of programmed items for clerks (Reading in the PGM1 and PGM2 mode)



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

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





To be continued on the next page

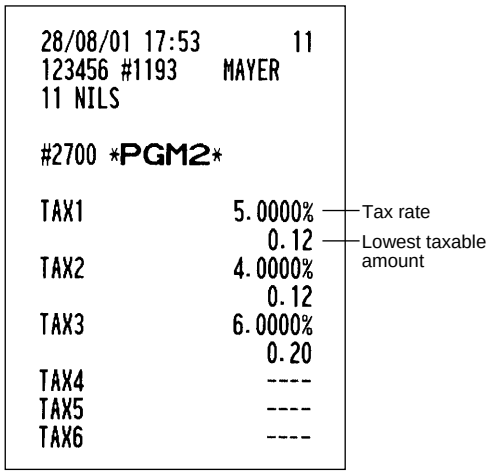
* When you take this report in the PGM1 mode, the PGM2 indication is replaced by a “PGM1”.

```
F082 COM.SAL8
                    0.00%
F083 COM.SAL9
                    0.00%
F084 NON COM.
F085 *DEPT TL
F086 DEPT(-)
F087 *HASH TL
F088 HASH(-)
F089 *BTTL TL
F090 BTTL(-)
F091 NET 1
F092 NET 2
F093 NET 3
F094 NET 4
F095 NET 5
F096 NET 6
F097 SUBTOTAL
F098 MDSE ST
F099 DIFF ST
F100 ***TOTAL
F101 CHANGE
F102 ITEMS
F103 ITEM ST
F104 COPY
F105 G.C COPY
F106 AVE.
F107 GROUP01
F115 GROUP09
F116  CCD
F117 CCD DIF.
F118 DIF. TL
F119 O-P
F120 TTL TAX
F121 NET
F122 COM.AMT1
F130 COM.AMT9
F131 COM.TTL
F132 DEPT
F133  GROUP
F134  PLU
F135  TRANS.
F136  TL-ID
F137  CLERK
F138 CASHIER
F139  HOURLY
F140  DAILY
F141 ZERO SAL
F142 CATEGORY
F143  SALES
F144  EAN
F145 PR.CHNG
F146  DELETE
```

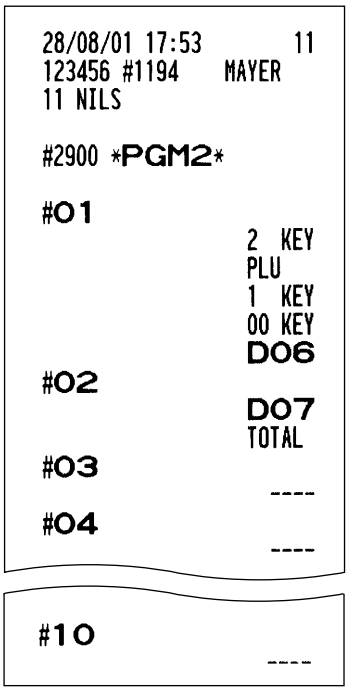
11 Reading of programmed items for functions - 2
(Reading in the PGM2 mode)

```
28/08/01 17:51        11
123456 #1192    MAYER
11 NILS

#2600 *PGM2*

#2614                                  Logo message
   === YOUR ===
   == STORE ==
    MESSAGE
#2615                 00               Line feed for differ ST
#2616
   01          00000000
   02          00000000
   03          00000000
   04          00000000
   05          00010000
   06          00000000
   07          00000000                Optional feature selection
   08          00000000
   09          00100000
   10          00000000
   11          00000000
   12          00000000
   13          00000000
   14          00000000
#2617                000                Drawer open alarm time
#2619               0 00                Hourly report format/start hour
#2620
                     10                 Stacked report
                     13
#2630               0000                Secret code
#2631               0000
#2632               0000
#2680                  0                Drawer no. for the drawer for foreign currency
#2690
    1               0000                RS-232C channel data
    2               0000
    3               0000
#2691               1110                Barcode reader programming
```

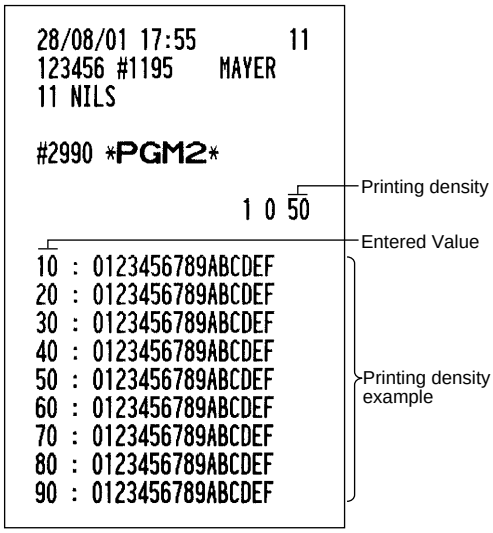
12 Reading of programmed tax rates (Reading in the PGM2 mode)



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



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



13 Training mode

The training mode is used when the operator or the manager practices register operations.

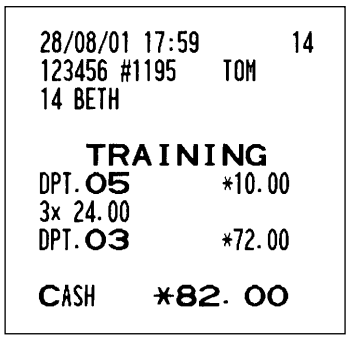
When a cashier set in training is selected, the machine automatically enters the training mode. When a cashier not set in training is selected, the machine automatically enters the ordinary REG mode. (For programming, consult your dealer.)

The training operations is valid only in REG, MGR and VOID mode.
The corresponding cashier memory is updated in the training mode. Other memories are not updated.

Key operation

1000 [5]
3 [⊗]
[3]
[TL]

Print



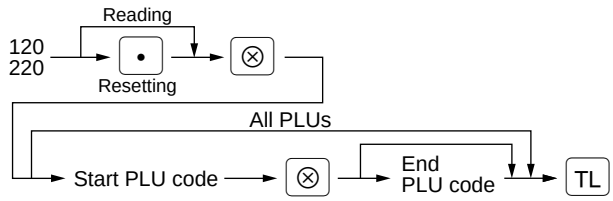
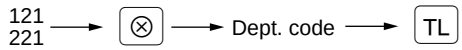
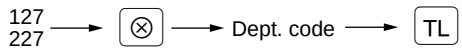
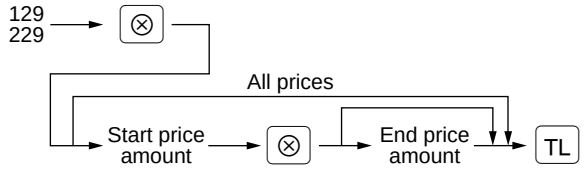
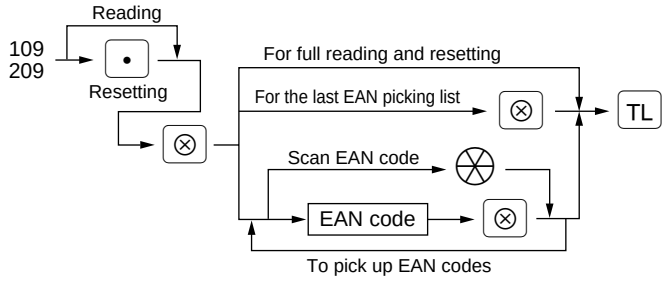
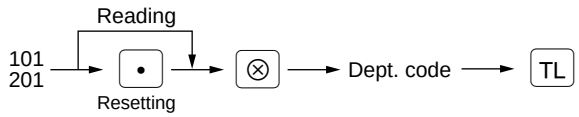
READING (X) AND RESETTING (Z) OF SALES TOTALS

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

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

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

Item	Mode switch position		Job code	Key operation
	X1/Z1	X2/Z2		
Flash report: (Only display) To clear the display, press the CL key or turn the mode switch to another position.	X1	—	—	Dept. key (1 to 50) Dept. code → DEPT # : Department total amount
				⊗ key: Amount of cash in drawer
				ST key: Sales total
Full reading and resetting	X1, Z1	X1, Z1	100	100 / 200 → Reading / • / Resetting → ⊗ → TL
		X2, Z2	200	
Individual clerk reading and resetting	X1, Z1	X1, Z1	141	141 / 241 → Reading / • / Resetting → ⊗ → TL
		X2, Z2	241	
	<OP X/Z> X, Z		41	41 → Reading / • / Resetting → ⊗ → TL
Individual cashier reading and resetting	X1, Z1	X1, Z1	151	151 / 251 → Reading / • / Resetting → ⊗ → TL
		X2, Z2	251	
	<OP X/Z> X, Z		51	51 → Reading / • / Resetting → ⊗ → TL
Full clerk reading and resetting	X1, Z1	X1, Z1	140	140 / 240 → Reading / • / Resetting → ⊗ → TL
		X2, Z2	240	
Full cashier reading and resetting	X1, Z1	X1, Z1	150	150 / 250 → Reading / • / Resetting → ⊗ → TL
		X2, Z2	250	
Full department reading	X1	X1	110	110 / 210 → ⊗ → TL
		X2	210	
Individual group reading	X1	X1	112	112 / 212 → ⊗ → Group no. → TL
		X2	212	
Full group reading	X1	X1	113	113 / 213 → ⊗ → TL
		X2	213	

Item	Mode switch position		Job code	Key operation
	X1/Z1	X2/Z2		
Reading and resetting of sales information for a range of PLUs/ subdepartments	X1, Z1	X1, Z1	120	
		X2, Z2	220	
Reading of sales information of PLUs/ subdepartments associated with an individual department	X1	X1	121	
		X2	221	
Reading of sales information on PLUs/ subdepartments whose sales amounts are zeros	X1	X1	127	
		X2	227	
Reading of PLU/ subdepartments whose sales amounts are zeros (by associated department)	X1	X1	127	
		X2	227	
Reading of sales information for the price amount range of PLUs/sub department	X1	X1	129	
		X2	229	
Reading and resetting of sales information for EANs	X1, Z1	X1, Z1	109	
		X2, Z2	209	
Reading and resetting of sales information for EANs associated with an individual department	X1, Z1	X1, Z1	101	
		X2, Z2	201	
Reading of EANs whose sales amounts are zeros	X1	X1	107	
		X2	207	

Item	Mode switch position		Job code	Key operation
	X1/Z1	X2/Z2		
Reading of EANs whose sales amounts are zeros (by associated department)	X1	X1	107	107 / 207 → ⊗ → Dept. code → TL
		X2	207	
Commission sales report	X1	X1	132	132 / 232 → ⊗ → TL
		X2	232	
Transaction reading	X1	X1	130	130 / 230 → ⊗ → TL
		X2	230	
Total in drawer	X1	X1	131	131 / 231 → ⊗ → TL
		X2	231	
Reading and resetting of hourly sales information	X1		160	Reading: 160 (For individual time range) → ⊗ → Start* time → ⊗ → End* time → TL * Enter the time in the 24-hour system.
	X1, Z1			Reading and Resetting: 160 → • (Reading / Resetting) → ⊗ → TL
Reading and resetting of a stacked report	X1, Z1	X1, Z1	190	190 / 290 → • (Reading / Resetting) → ⊗ → TL 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	270 → • (Reading / Resetting) → ⊗ → TL

Note *Individual and full clerk reading and resetting are available only in the cashier and clerk system. In the factory setting, the register provides the "cashier only" system. So, if you want to change the system, consult your dealer.*

Non-accessed EAN deleting

Item	Mode switch position		Job code	Key operation
	X1/Z1	X2/Z2		
Reading of non-accessed EANs	X1		105	105 → ⊗ → TL
Deleting of non-accessed EANs	Z1		105	105 → • → ⊗ → For full deleting / For the last EAN picking list → ⊗ → TL; Scan EAN code → ⊗; EAN code → ⊗; To pick up EAN codes

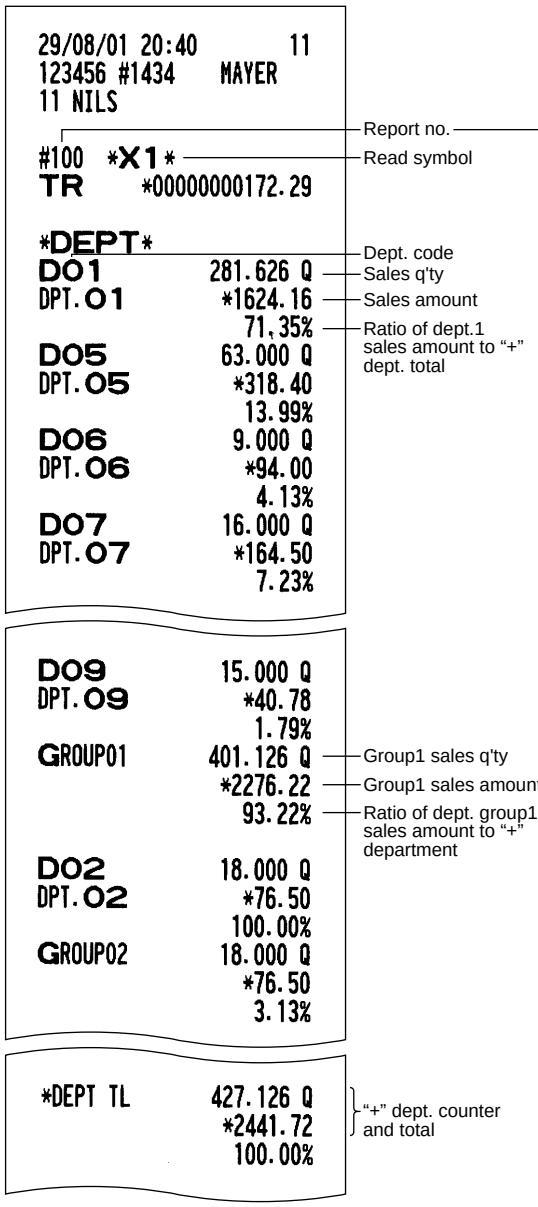
Note *When you execute the job #105 in Z1 mode, not only the sales data, but also the EAN code(s) (the related data files) themselves will be deleted.*

2 Daily sales totals

■ Full reading and resetting of sales totals

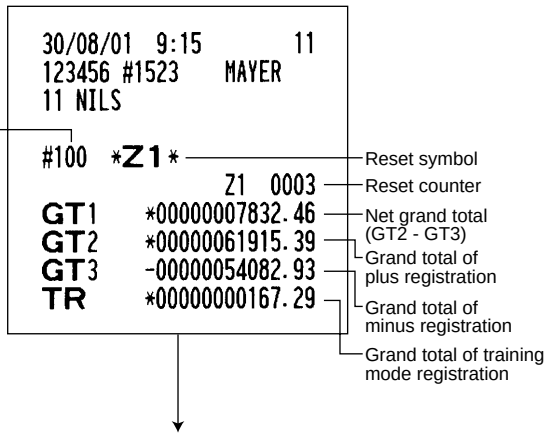
You can take X and Z reports in the X1/Z1 mode. The use of the decimal key (•) determines when the report will actually reset the sales totals.

• Sample X report



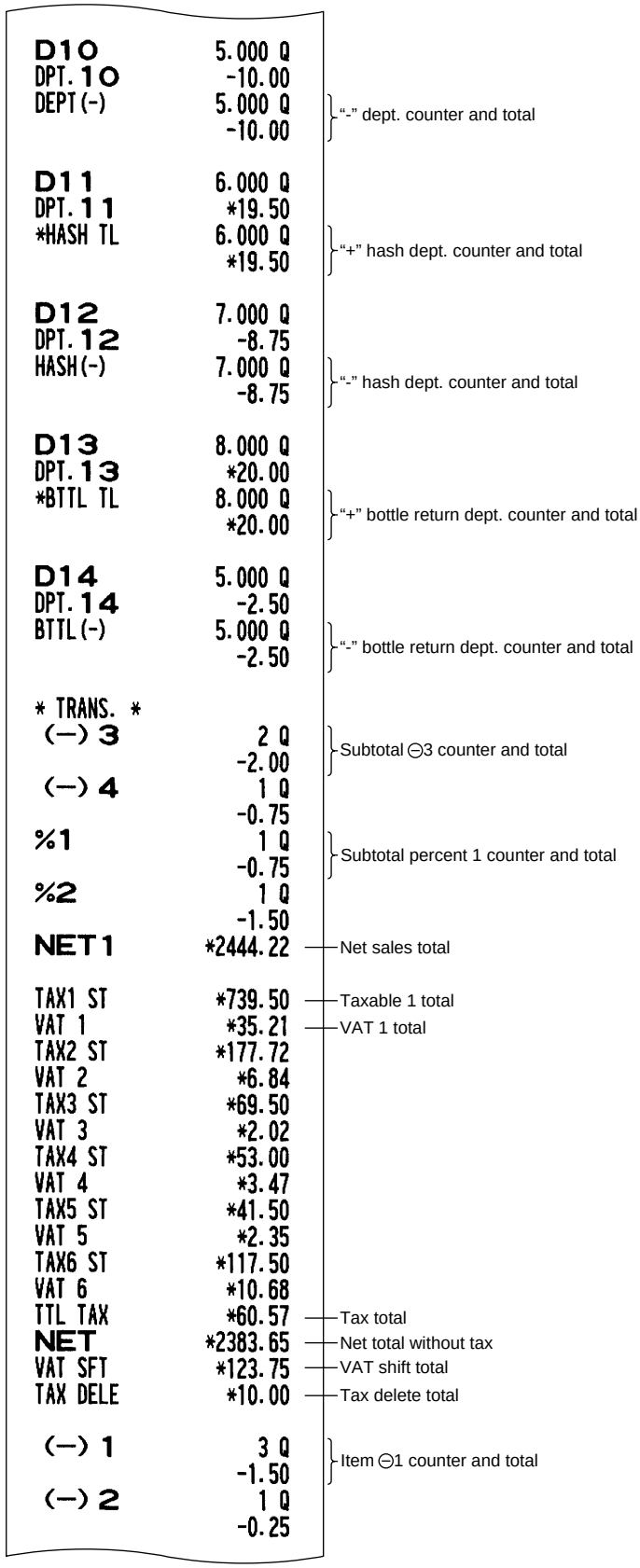
To be continued on the next page

• Sample Z report

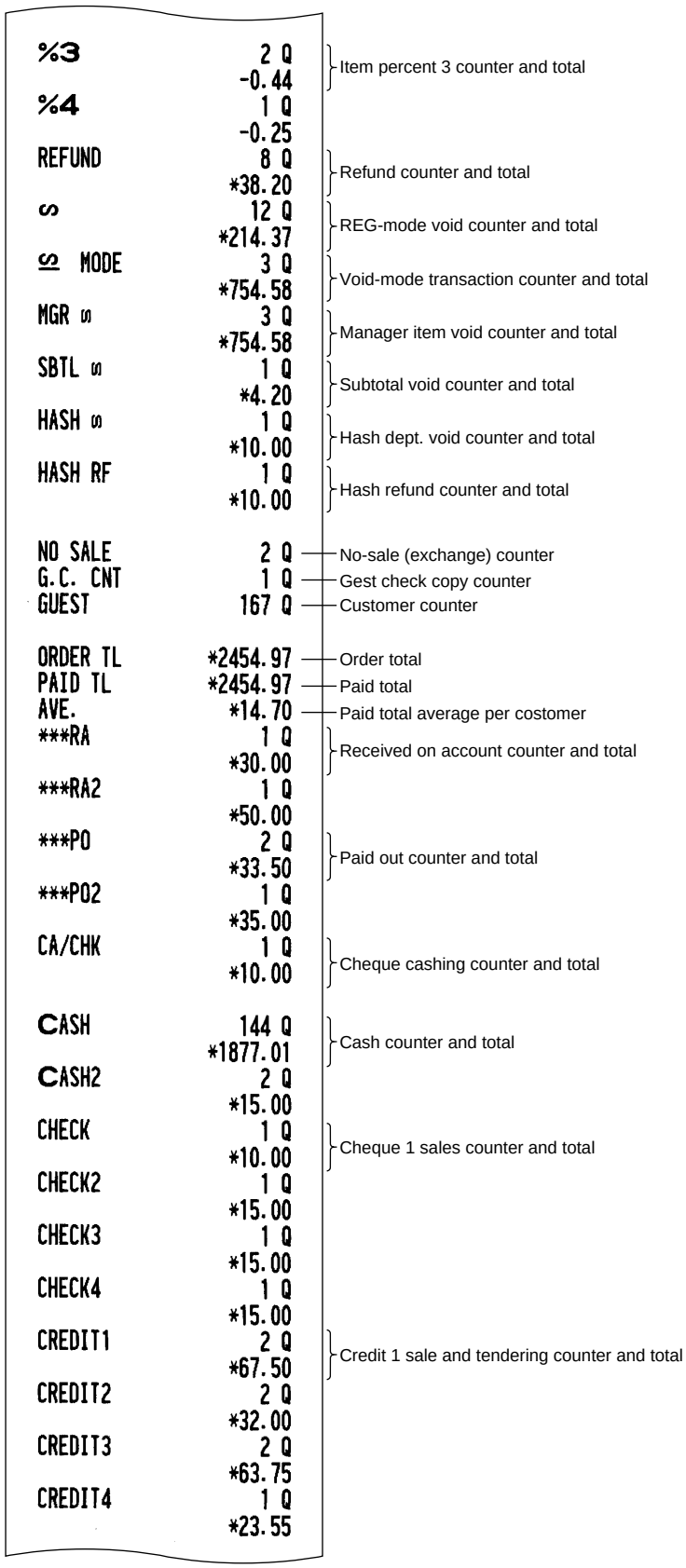


The subsequent printout occurs in the same format as in the X report.

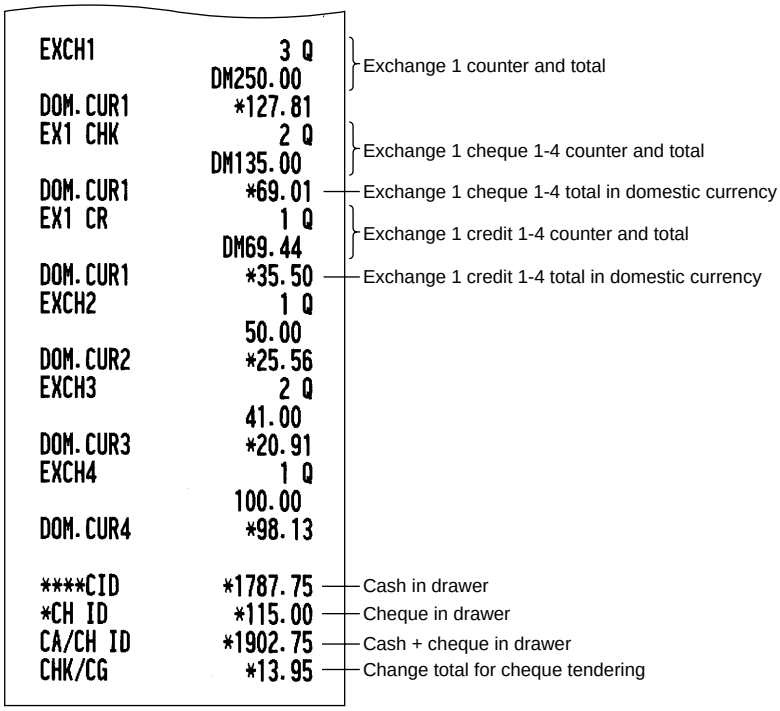
Note *Not all reports provide the resetting capability. Please refer to the chart on pages 95 through 97.*



To be continued on the next page



To be continued on the next page


EXCH1 3 Q
DM250.00
DOM.CUR1 *127.81
EX1 CHK 2 Q
DM135.00
DOM.CUR1 *69.01
EX1 CR 1 Q
DM69.44
DOM.CUR1 *35.50
EXCH2 1 Q
50.00
DOM.CUR2 *25.56
EXCH3 2 Q
41.00
DOM.CUR3 *20.91
EXCH4 1 Q
100.00
DOM.CUR4 *98.13
****CID *1787.75
*CH ID *115.00
CA/CH ID *1902.75
CHK/CG *13.95
Exchange 1 counter and total
Exchange 1 cheque 1-4 counter and total
Exchange 1 cheque 1-4 total in domestic currency
Exchange 1 credit 1-4 counter and total
Exchange 1 credit 1-4 total in domestic currency
Cash in drawer
Cheque in drawer
Cash + cheque in drawer
Change total for cheque tendering

■ 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

```
29/08/01 20:15        11
123456 #1404     MAYER
11 NILS

#151  *X1*
*CASHIER *
01CSR#11         MAYER
ORDER TL        *2444.97
PAID TL         *2444.97
AVE.              *14.91
REFUND               9 Q
                 *48.20
S                   12 Q
                 *57.08
S  MODE              1 Q
                *420.00
MGR S                1 Q
                *420.00
SBTL S               1 Q
                  *4.20
G.C. CNT             1 Q
GUEST              164 Q

***RA                1 Q
                 *30.00
***RA2               1 Q
                 *50.00
***PO                2 Q
                 *33.50
***PO2               1 Q
                 *35.00
CA/CHK               1 Q
                 *10.00

CASH               141 Q
                *1867.01
CASH2                2 Q
                 *15.00
CHECK                1 Q
                 *10.00
CHECK2               1 Q
                 *15.00
CHECK3               1 Q
                 *15.00
CHECK4               1 Q
                 *15.00
CREDIT1              2 Q
                 *67.50
CREDIT2              2 Q
                 *32.00
```

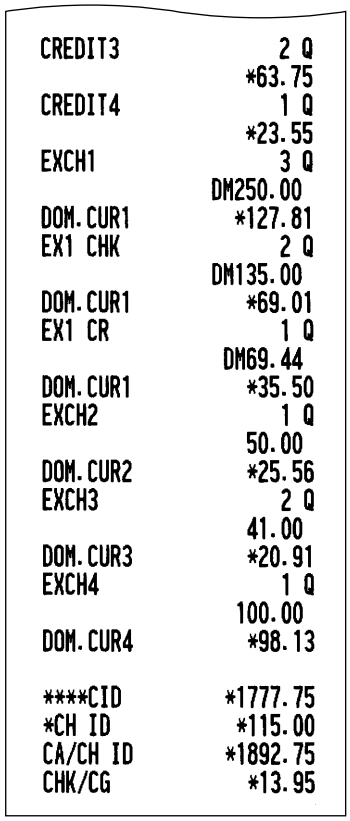
Cashier no./cashier code
Cashier name
Order total
Paid total
Average

• Sample Z report

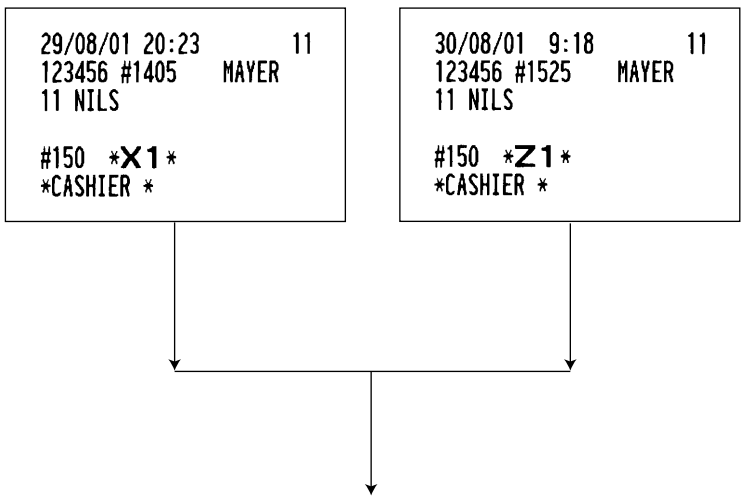
```
30/08/01  9:16        11
123456 #1524     MAYER
11 NILS

#151  *Z1*
*CASHIER *
01CSR#11         MAYER
```

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 reports of individual cashier reading and resetting, and sales data for cashiers print in this sequence.

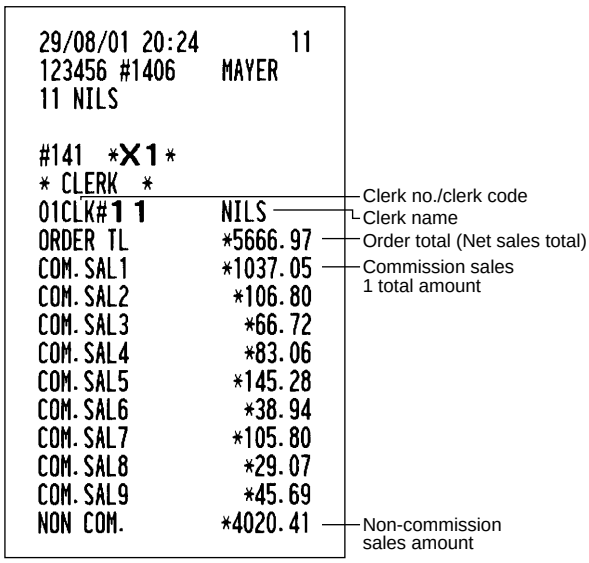
■ Clerk reading and resetting

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

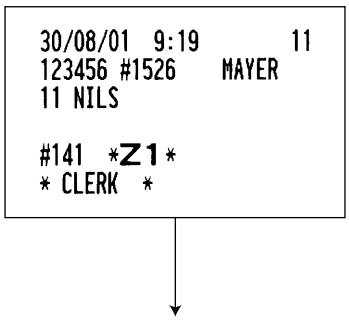
Individual clerk reading and resetting

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

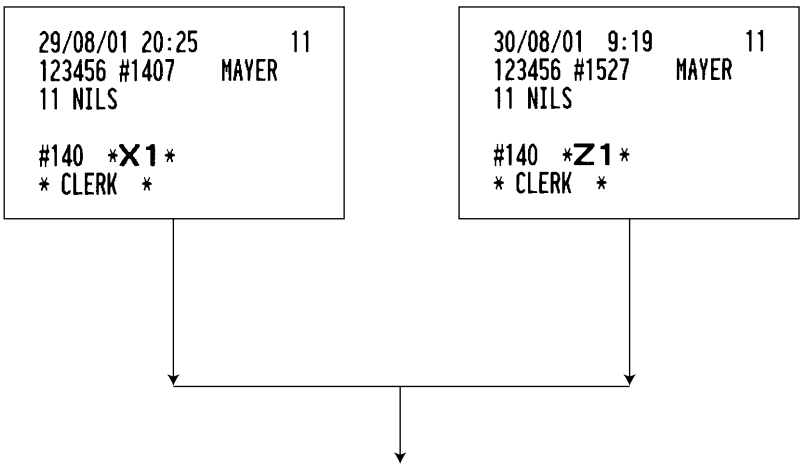


• Sample Z report



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

Full clerk reading and resetting



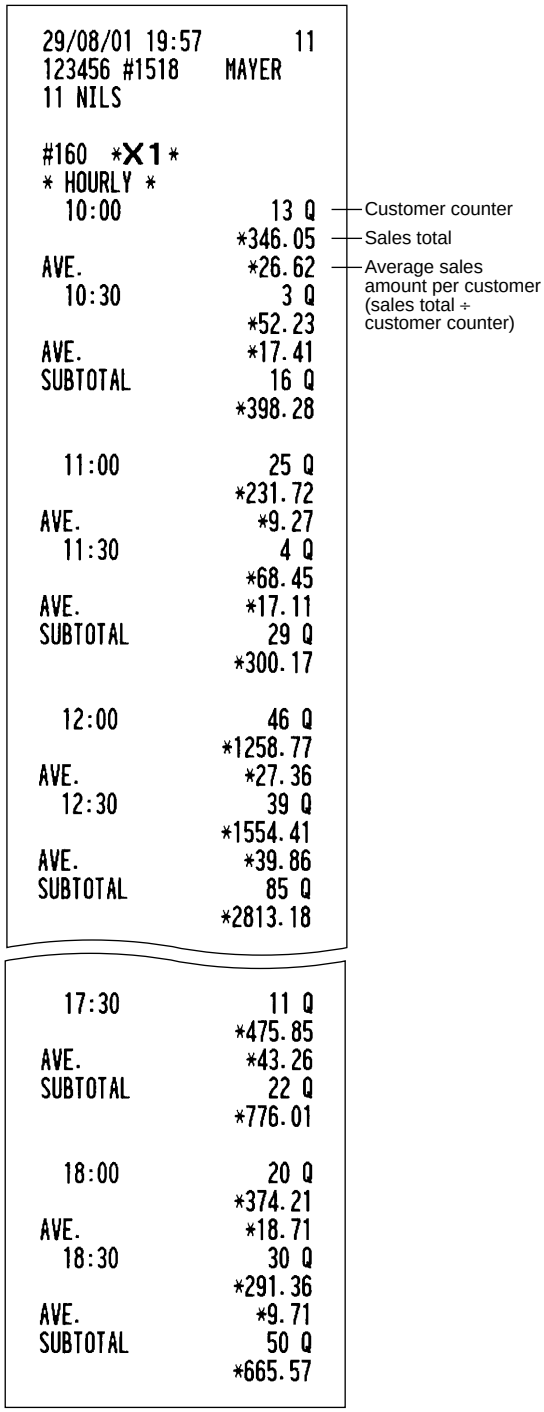
The subsequent printout occurs in the same format as in the reports of individual clerk reading and resetting, and sales data for clerks print in this sequence.

* 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".

■ 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

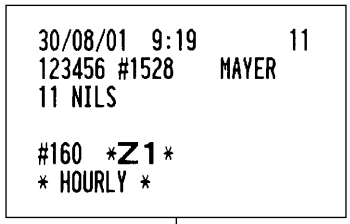


Customer counter

Sales total

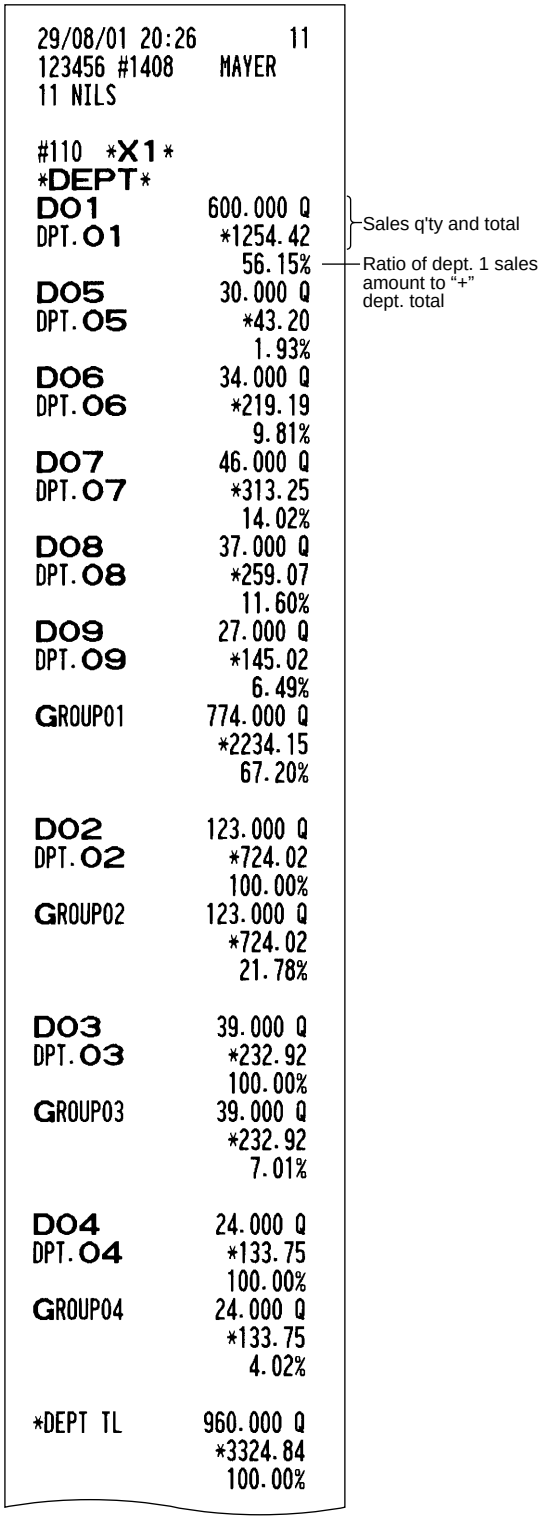
Average sales amount per customer (sales total ÷ customer counter)

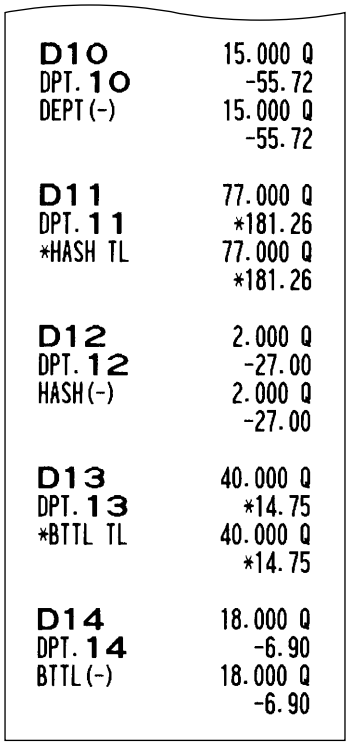
• Sample Z report



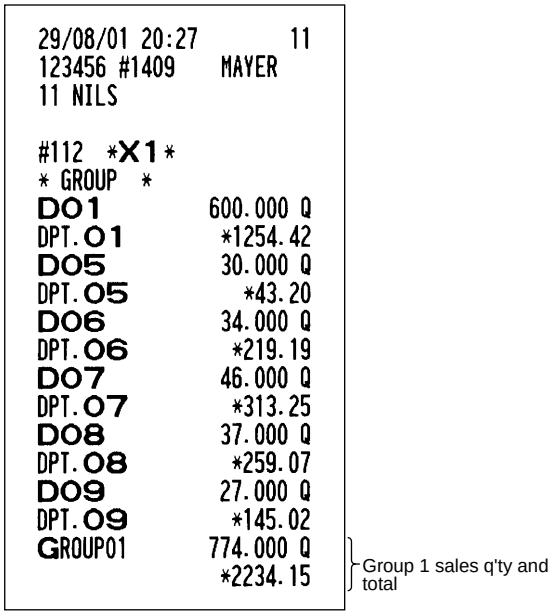
The subsequent printout occurs in the same format as in the sample X report.

■ Full department reading

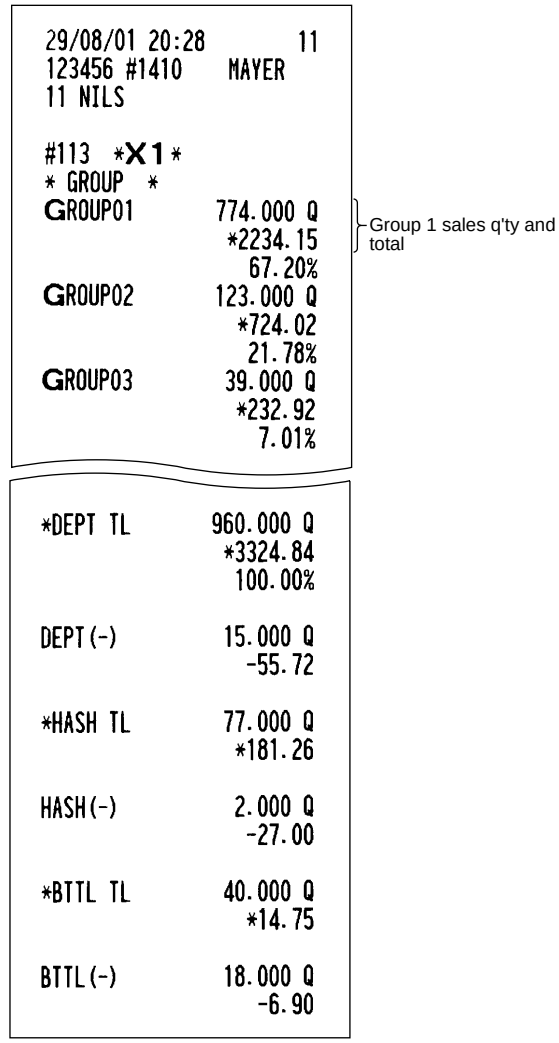




■ Individual group reading



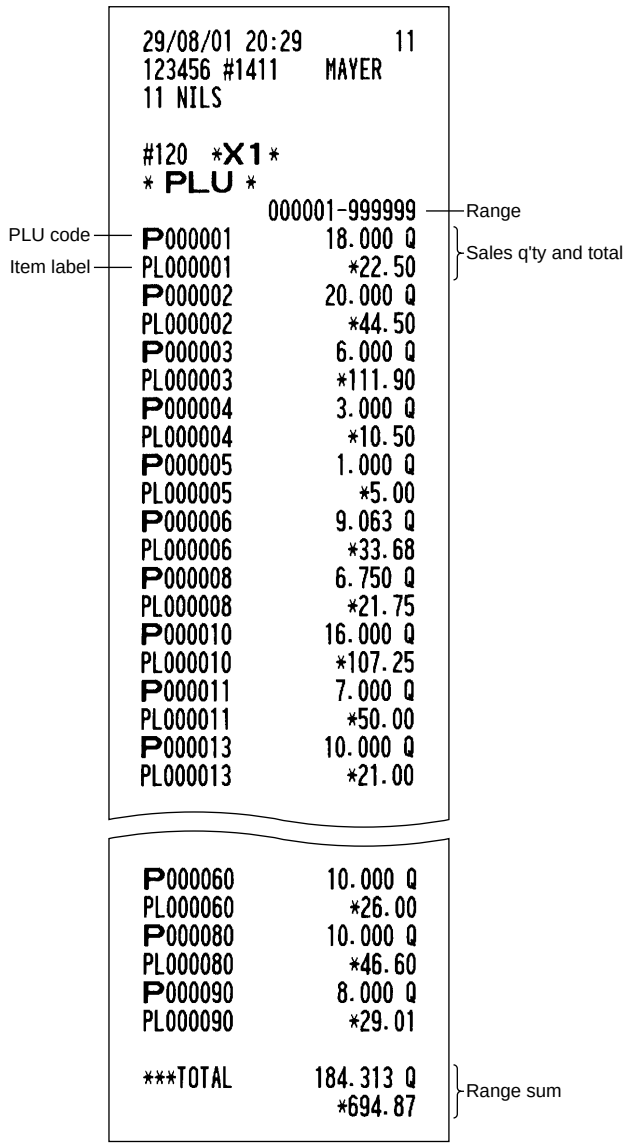
■ Full group reading



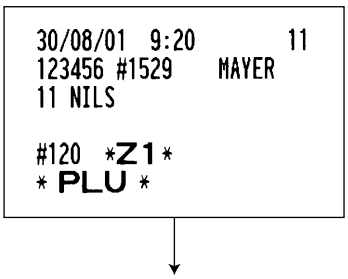
■ Reading and resetting of sales information for a range of PLUs/subdepartments

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

• Sample X report

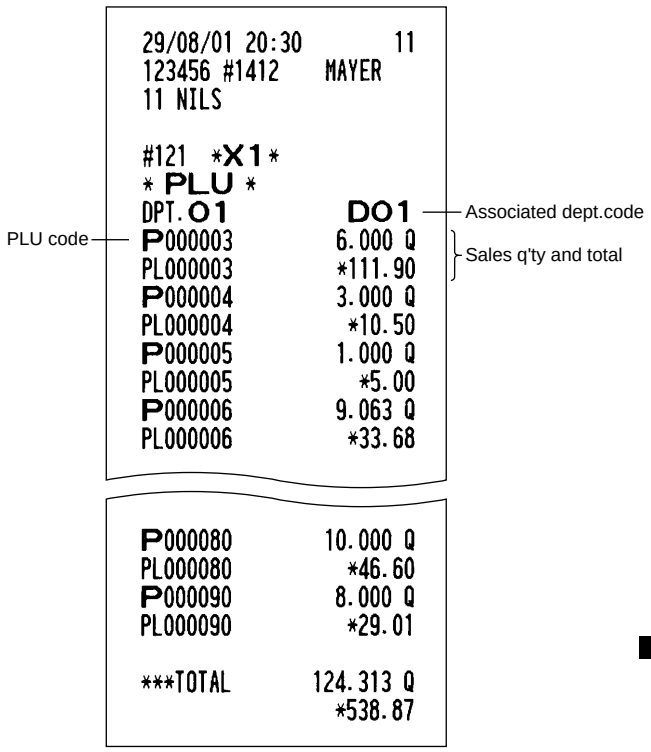


• Sample Z report

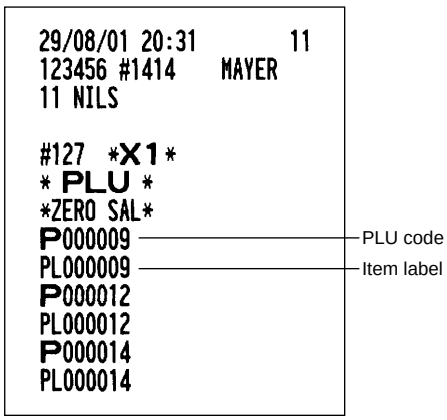


The subsequent printout occurs in the same format as in the sample X report.

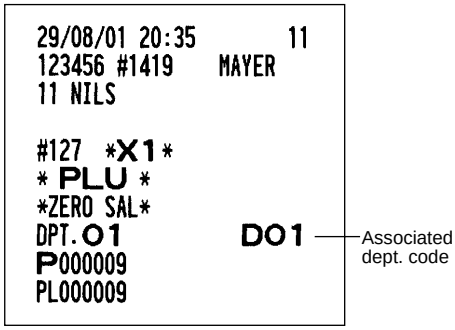
■ Reading of sales information on PLUs/subdepartments associated with an individual department



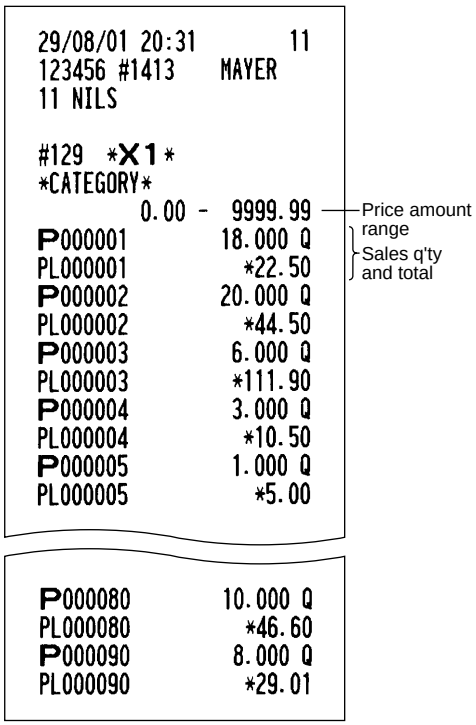
■ Reading of PLUs/subdepartments whose sales amounts are zeros



■ Reading of PLUs/subdepartments whose sales amounts are zeros (by associated department)

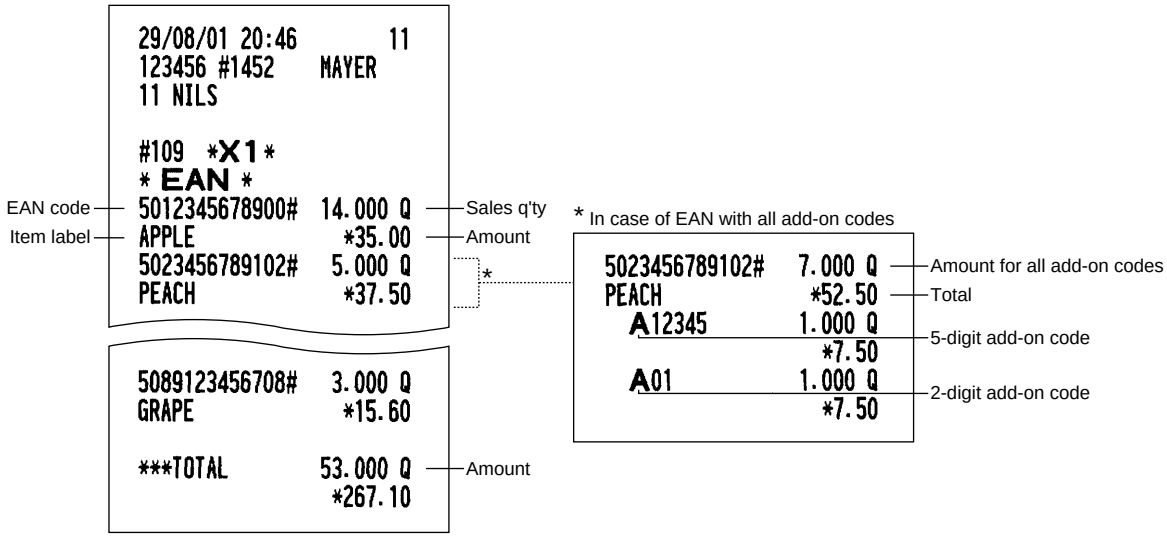


■ Reading of sales information for the price amount range of PLUs/subdepartments

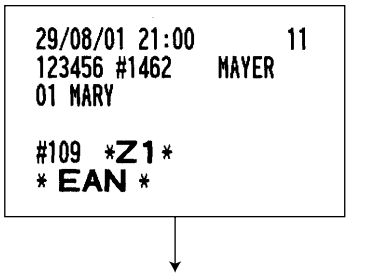


■ Reading and resetting of sales information for EANs

• Sample X report



• Sample Z report



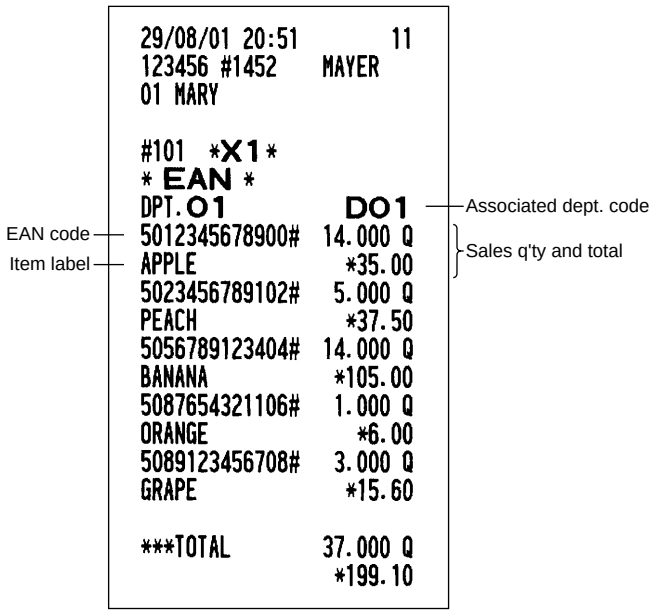
The subsequent printout occurs in the same format as in the sample X report.

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

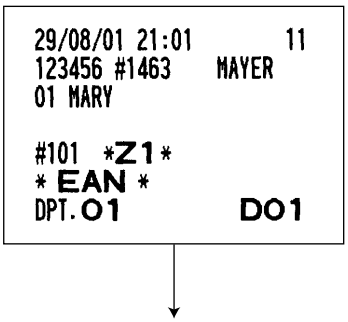
EAN-13
EAN-8
UPC-A
UPC-E

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

• Sample X report

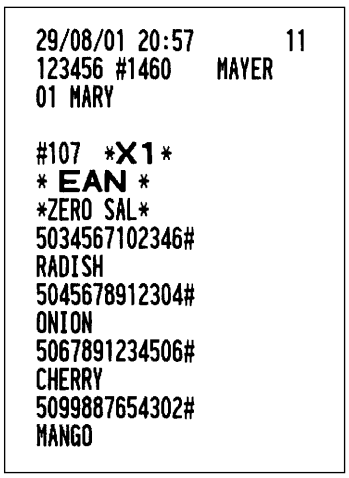


• Sample Z report

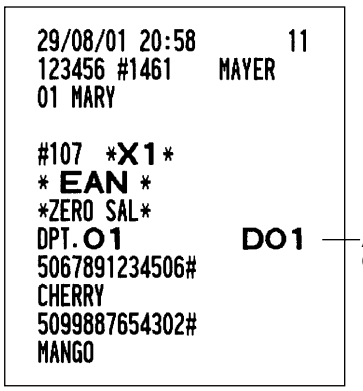


The subsequent printout occurs in the same format as in the sample X report.

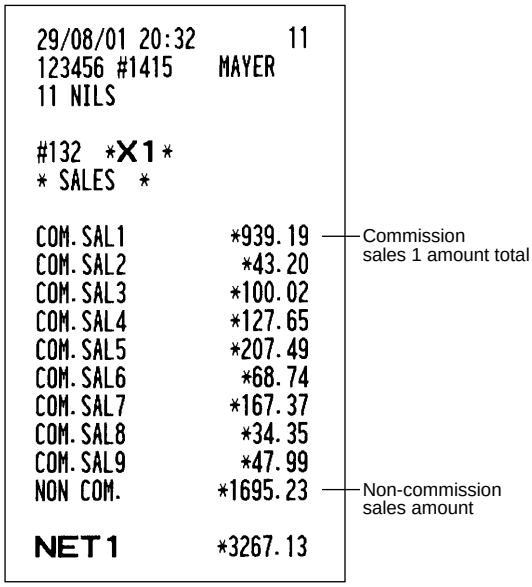
■ Reading of EANs whose sales amounts are zeros



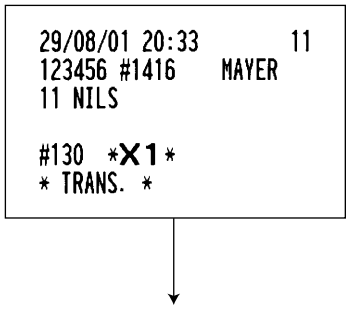
■ Reading of EANs whose sales amounts are zeros (by associated department)



■ Reading of commission sales information

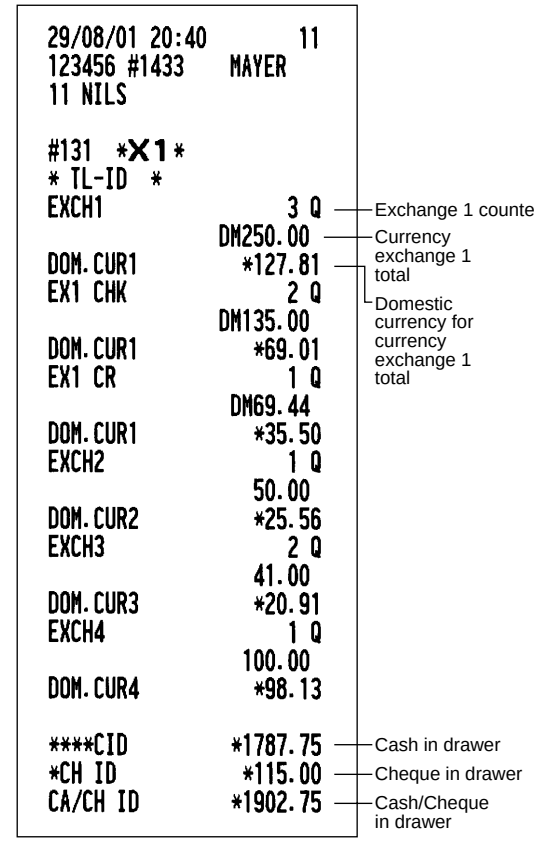


■ Transaction reading



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

■ Total in drawer reading



■ Reading and resetting of a stacked report

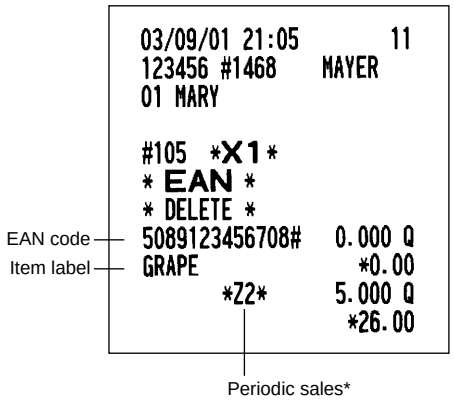
You can print multiple X1/Z1 reports in sequence at a time.
In this case, you need to program in advance what X1/Z1 reports should be printed in the stacked report sequence.

Note

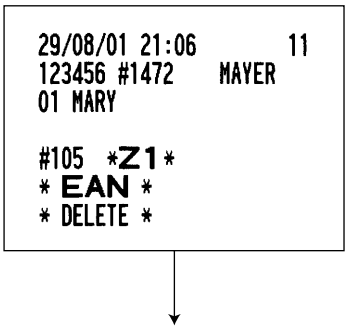
The following job code numbers alone can be used for stacked report printing.
Job code number: 100, 107, 109, 110, 113, 120, 127, 129, 130, 131, 132, 140, 150, 160
Refer to "Selection of X1/Z1 and X2/Z2 reports to be printed in the stacked report sequence" for details.

■ Deleting of non-accessed EANs

• 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 EAN for #209 report, the data is printed here.
When you delete the EAN in Z1 mode under this situation, the data for #209 is also deleted.

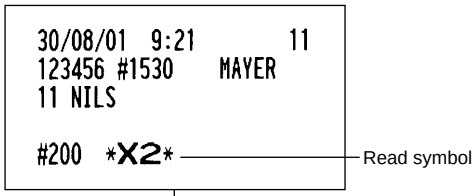
3 Periodic consolidation

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

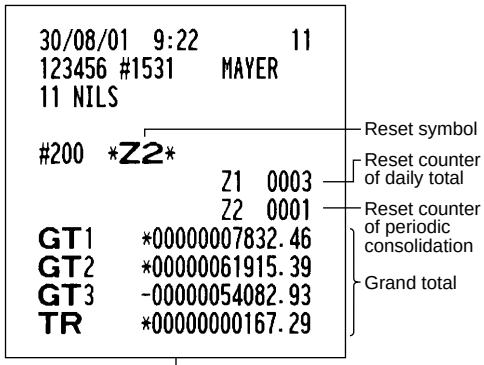
■ Generality

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



• Sample Z report



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

• Sample X report

```
31/08/01 18:50        11
123456 #1186    MAYER
11 NILS

#270  *X2*
* DAILY  *
01/08              56 Q
                *5962.50
02/08              67 Q
                *7111.25
03/08              51 Q
                *6895.00
04/08              63 Q
                *6438.50
05/08              50 Q
                *4675.00
```

```
30/08              72 Q
                *6982.50
31/08              53 Q
                *5565.00

***TOTAL         1415 Q
              *143639.75
```

• Sample Z report

```
01/09/01 16:58        11
123456 #1246    MAYER
11 NILS

#270  *Z2*
```

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 in the stacked report sequence.

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, 232, 240, 250, 270
Refer to "Selection of X1/Z1 and X2/Z2 reports to be printed in the stacked report sequence" for details.

COMPULSORY CASH/CHEQUE DECLARATION

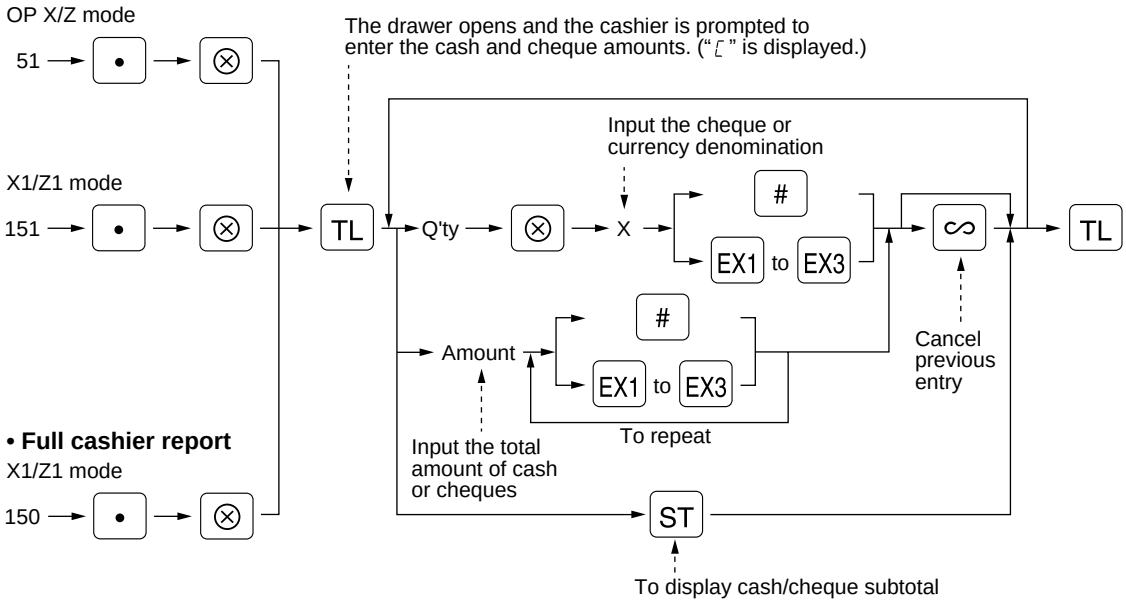
If you want to make mandatory the declaration of the cash and cheque amount in the drawer before outputting cashier Z reports, consult your dealer and have your register programmed for compulsory cash/cheque declaration.
If your register is programmed for compulsory cash/cheque declaration (CCD), a cashier must first count and declare the cash and cheque amounts (of domestic and foreign currency) in the drawer, before he or she can output a cashier report. The procedure for outputting a CCD report is shown below.

Types of compulsory cash/cheque declaration
- Compulsory declaration prior to individual cashier resetting
- Compulsory declaration prior to full cashier resetting

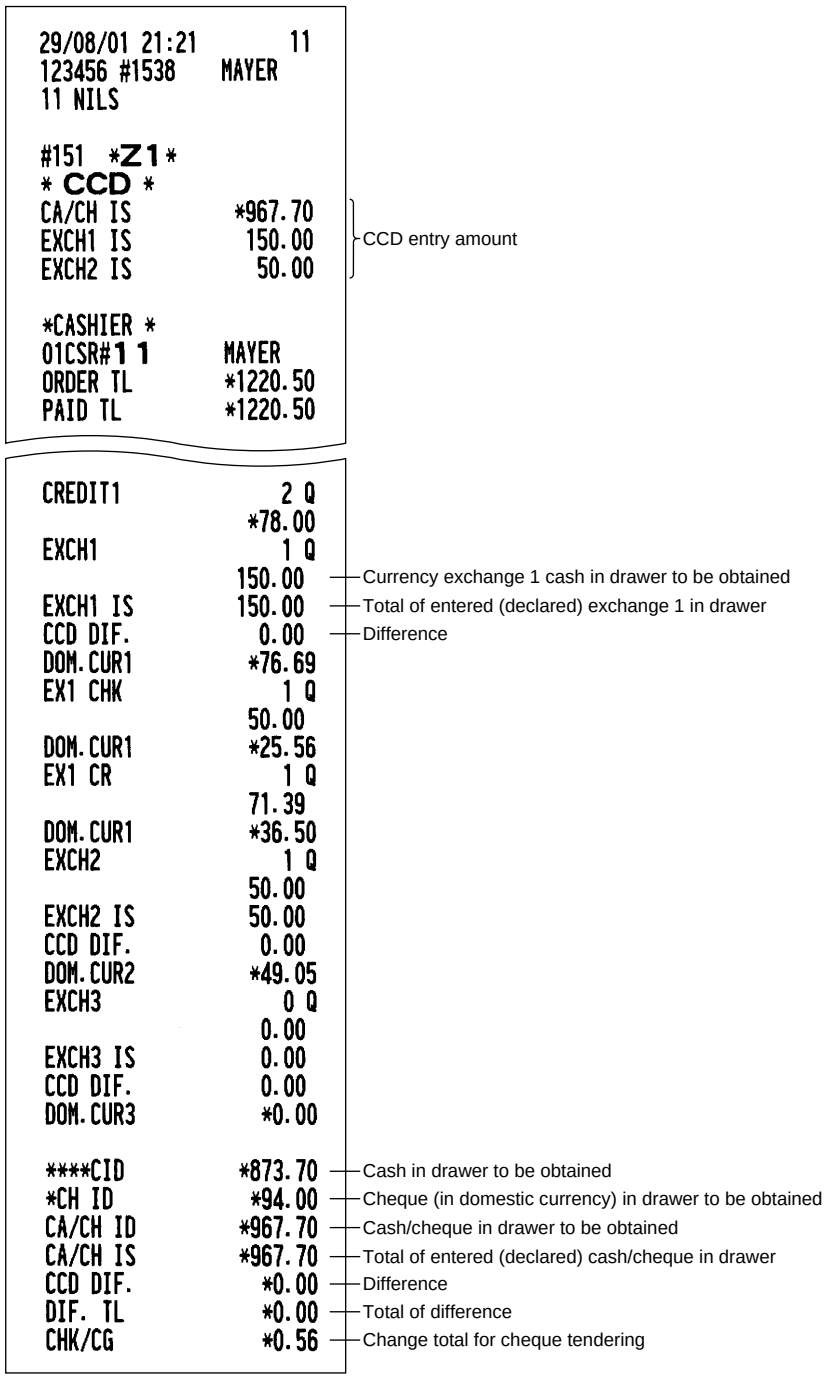
Note
- *Compulsory cash/cheque declaration is available in the above two types. You can choose either of these. Consult your dealer for details.*
- *When cash/cheque declaration is compulsory, flash reports are not available.*

Key operation
After the first TL key is pressed, the register prompts the cashier to input the cash and cheque accounts for both domestic and foreign currency. The cashier can simply input the total amounts of each currency unit, or the number of bills or coins of each denomination of each currency unit.

• Individual cashier report



:When inputting the cash or cheque amount (domestic currency) in the drawer
EX1 to EX3 :When inputting the amount of a foreign currency in the drawer


29/08/01 21:21 11
123456 #1538 MAYER
11 NILS
#151 *Z1*
* CCD *
CA/CH IS *967.70
EXCH1 IS 150.00
EXCH2 IS 50.00
*CASHIER *
01CSR#11 MAYER
ORDER TL *1220.50
PAID TL *1220.50
CCD entry amount
CREDIT1 2 Q
*78.00
EXCH1 1 Q
150.00
EXCH1 IS 150.00
CCD DIF. 0.00
DOM.CUR1 *76.69
EX1 CHK 1 Q
50.00
DOM.CUR1 *25.56
EX1 CR 1 Q
71.39
DOM.CUR1 *36.50
EXCH2 1 Q
50.00
EXCH2 IS 50.00
CCD DIF. 0.00
DOM.CUR2 *49.05
EXCH3 0 Q
0.00
EXCH3 IS 0.00
CCD DIF. 0.00
DOM.CUR3 *0.00
****CID *873.70
*CH ID *94.00
CA/CH ID *967.70
CA/CH IS *967.70
CCD DIF. *0.00
DIF. TL *0.00
CHK/CG *0.56
Currency exchange 1 cash in drawer to be obtained
Total of entered (declared) exchange 1 in drawer
Difference
Cash in drawer to be obtained
Cheque (in domestic currency) in drawer to be obtained
Cash/cheque in drawer to be obtained
Total of entered (declared) cash/cheque in drawer
Difference
Total of difference
Change total for cheque tendering

PROGRAMMING FOR EURO

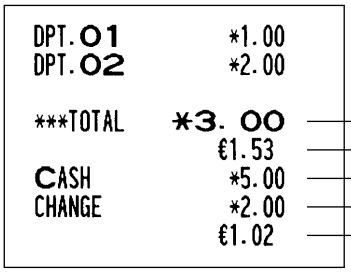
Your register can be modified to correspond with each period set for the introduction of EURO, and in your register each currency is treated as shown on the table below depending on which period you are in.
Basically your register can be automatically modified to correspond to the introduction of EURO by executing the operation of Job #800 in X2/Z2 mode. However, there are several options you must set depending on your needs.

How currencies are treated in your register

		Period 1	**Period 2**	**Period 3**
		After the introduction of EURO, and before EURO banknotes and coins begin to circulate	After EURO banknotes and coins begin to circulate, and before national currency is withdrawn from circulation. (Co-existence of EURO and national currency)	After the national currency is withdrawn from circulation
Currency	EURO	Exchange 1	Domestic currency	Domestic currency
	National currency (DM, F, etc.)	Domestic currency	Exchange 1	
	Foreign currency	Exchange 2 to Exchange 4	Exchange 2 to Exchange 4	Exchange 1 to Exchange 4

Receipt samples:

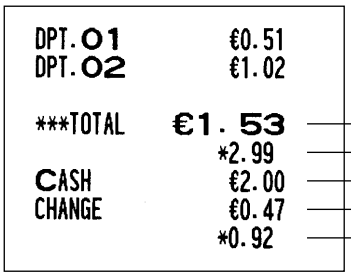
Period 1



Sales total amount in national currency (as domestic currency)
Sales total amount in EURO*
Tendered amount in national currency
Change in national currency
Change in EURO*

*: They are printed for information purposes only.

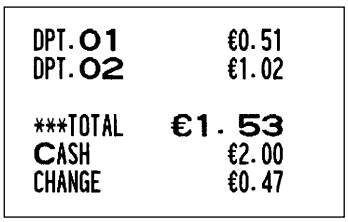
Period 2



Sales total amount in EURO (as domestic currency)
Sales total amount in national currency*
Tendered amount in EURO
Change in EURO
Change in national currency*

*: They are printed for information purposes only.

Period 3

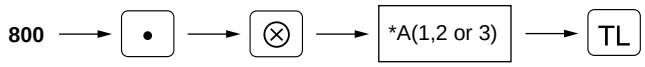


■ Automatic modification of register system for introduction of EURO

X2/Z2 **800**

To make your register correspond to the introduction of EURO, your register system can be automatically modified when the procedure shown below is executed in the X2/Z2 mode. According to the steps of the introduction, you can make your register correspond to EURO.

Procedure



*A=1: Applicable for the period 1
*A=2: Applicable for the period 2
*A=3: Applicable for the period 3

Note

- *You can perform the each operation only once with the substitution of "A=1", "A=2" and "A=3". If you performed the operation with the substitution of "A=2" first, you cannot perform the operation with the substitution of "A=1". If you performed the operation with the substitution of "A=3" first, you cannot perform the operation with the substitution of "A=1" and "A=2".*

The details of the register system modification are as follows:

When "1" is substituted to "A":

1. Issuing a general Z1 report (Job #100)
2. Issuing a general Z2 report (Job #200)
3. Setting "Yes" for a PGM function "Printing exchange 1 total amount and change amount on receipt and journal" (Job #2616)
4. Setting "Division" for a PGM function "Exchange 1 calculation method" (Job #2616)
5. Setting the EURO symbol (€) for the currency description text (Job #2334), and setting "2" for the number of digits after decimal point (Job #2330) of exchange 1
6. Setting the round-off function enable for currency exchange

After the execution of the procedure with the substitution of "1", treat EURO as foreign currency using Exchange 1 (EX1).

When "2" is substituted to "A":

1. Issuing a general Z1 report (Job #100)
2. Issuing a general Z2 report (Job #200)
3. Resetting GT1, GT2, GT3 and training GT
4. Converting the unit prices of Dept, PLU and EAN to EURO currency.
5. Setting "Yes" for a PGM function "Printing exchange 1 total amount and change amount on receipt and journal" (Job #2616)
6. Setting "Multiplication" for a PGM function "Exchange 1 calculation method" (Job #2616)
7. Changing the domestic currency symbol to the EURO symbol (€) and setting the number of digits after decimal point of the domestic currency to 2
8. For the setting of the currency description text and the number of digits after decimal point of exchange 1, the ones that had been set to the domestic currency are set. (Job #2330 and #2334)
9. Setting the round-off function enable for currency exchange

Note

When any special setting has been applied for the rounding system to make it suit your domestic (national) currency, the setting is cancelled to make it suit your new domestic currency, EURO.

After the execution of the procedure with the substitution of “2”, treat EURO as domestic currency, and national currency as foreign currency using Exchange 1 (EX1).
With the execution of the procedure with the substitution of “2”, your domestic currency becomes EURO. While unit prices of departments, PLUs and EANs are automatically converted to EURO currency, you must change the rates or amounts for the miscellaneous keys so that they are based on amounts in EURO.

When “3” is substituted to “A”:

1. Issuing a general Z1 report (Job #100)
2. Issuing a general Z2 report (Job #200)
3. Resetting GT1, GT2, GT3 and training GT
4. Converting the unit prices of Dept, PLU and EAN to EURO currency.
5. Setting “No” for a PGM function “Printing exchange 1 total amount and change amount on receipt and journal” (Job #2616)
6. Setting “Multiplication” for a PGM function “Exchange 1 calculation method” (Job#2616)
7. Changing the domestic currency symbol to the EURO symbol and setting the number of digits after decimal of the domestic currency to 2
8. Setting the round-off function enable for currency exchange

Note *When the operation is performed from the status of substitution “1”, and when any special setting has been applied for the rounding system to make it suit your domestic (national) currency, the setting is cancelled to make it suit your new domestic currency, EURO.*

After the execution of the procedure with the substitution of “3”, treat EURO as domestic currency.
When the operation with the substitution of “2” has been performed already, “3. Resetting GT1, GT2, GT3 and training GT” and “4. Converting the unit prices of Dept, PLU and EAN to EURO currency” are not executed.
When the operation with the substitution of “1” or “2” has been performed already, the currency description text of exchange 1 is overwritten with a space.

■ Optional programming for the introduction of EURO PGM 1 PGM 2

Programming relating with the function of exchange 1(EX1) cannot be changed automatically with the execution of Job #800 described in the previous section. After the execution on each period, conduct the following programming depending on your needs.

Programming for Exchange 1 (EX1)

Currency exchange rate (Job #1310)
For the period 1 and period 2, set the EURO conversion rate.

Cheque/credit operation (Job #2616)

Assigning the drawer number to the drawer for foreign currency (Job #2680)
It may be convenient to have two drawers for EURO (as domestic currency) and national currency (as the foreign currency set in exchange 1) when both of these currencies are co-existing (period 2). In this case, conduct this programming.

OVERRIDE ENTRIES

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

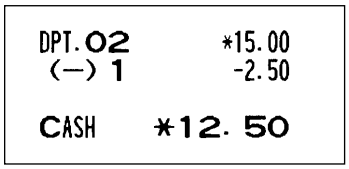
Procedure

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

Example

On this example, the register has been programmed not to allow deduction entries over 2.00.

Key operation		Print
	1500 [2]	
REG-mode entries	250 [⊖] ...Error	
	[CL]	
Turn the mode switch to the MGR position.		
	250 [⊖]	
Return the mode switch to the REG position.		
	[TL]	



CORRECTION AFTER FINALIZING A TRANSACTION (AFTER GENERATING A RECEIPT)

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

1. Turn the mode switch to the MGR position.
2. Press the [∞] 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

```
28/08/01 14:24        11
123456 #1155    MAYER
11 NILS

DPT.02          *10.00
DPT.03           *1.50

CASH      *11.50
```

Cancellation receipt

```
28/08/01 14:26        11
123456 #1156    MAYER
11 NILS

      *∞ MODE*
DPT.02          *10.00
DPT.03           *1.50

CASH      *11.50
```

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

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 “4. Installing and removing the paper rolls” under “OPERATOR MAINTENANCE.”

■ Receipt ON/OFF function

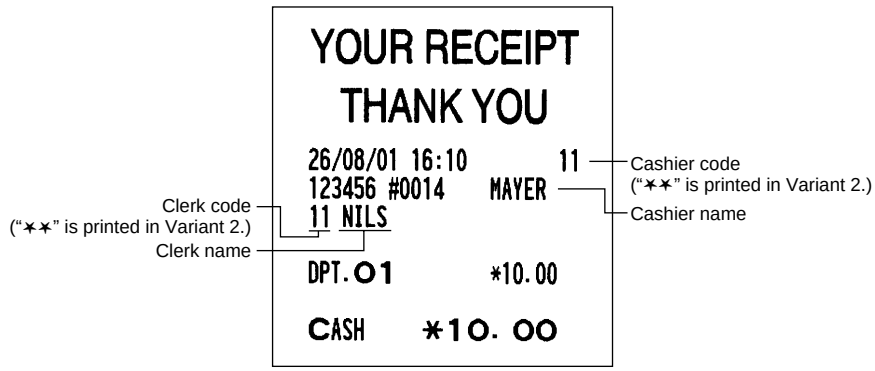
You can disable receipt printing in the REG mode to save paper using the receipt function. To disable receipt printing, press the [RCPT] key in the OP X/Z position. This key toggles the receipt printing status ON and OFF.
To check the receipt printing status, turn the mode switch to the OP X/Z position or press the [CL] key in the REG mode. When the function is in the OFF status, the receipt off indicator “_” illuminates.

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”.*

■ Cashier and clerk assignment

Prior to any item entries, cashiers must enter their cashier codes into the register, and may also be required to enter a clerk code. However, these code entries may not be necessary when the same cashier or clerk code is used in the next transaction.
Cashier codes and clerk codes are available in two variants: Variant 1, in which they are displayed (“-00-” to “-99-”), and Variant 2, in which they are not displayed (always “-00-”).
When the cashier or clerk code is assigned by the following procedure, the register prints the two-digit cashier code or clerk code (variant 2: “✶✶ ”) and the cashier or clerk name both on the receipt and journal for every transaction.

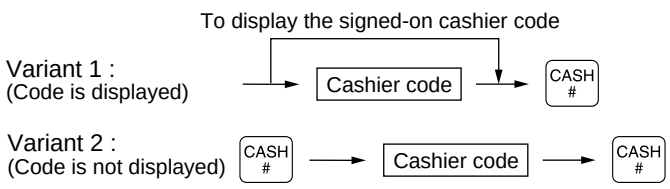
Note *All of these settings depend on how the register has been programmed. For the selection of these settings, consult your local dealer.*



Procedure

Cashier assignment

■ Sign-on



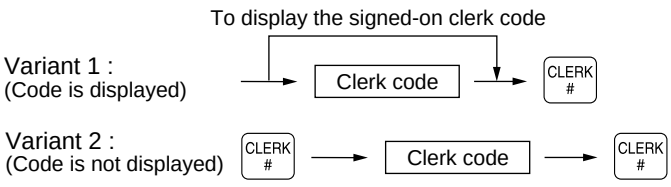
■ Sign-off

Variant 1 / Variant 2 :

Note *The real cashier key system is also available. In this system put one of the 1 through 15 keys in the cashier switch to sign on. If you want to choose this system, consult your dealer.*

Clerk assignment

■ Sign-on



■ Sign-off

Variant 1 / Variant 2 :

Note

- *On the current factory setting, only the entry of the cashier code is required. When cashier & clerk codes entries are desirable for your register, consult your dealer.*
- *If you want to enter cashier and/or clerk codes before every transaction, consult your dealer.*
- *For the display type selection of cashier code and clerk code, "Variant 1" has been preset. For the selection of "Variant 2," consult your dealer.*
- *Clerk can be changed during the transaction. Consult your dealer.*

2 Error warning

In the following examples, your register will go into an error state accompanied with a warning beep and the error symbol "E" on the display. Clear the error state by pressing the CL key and take proper action.
Please refer to the error code table on page 158.

- When you enter an over 32-digit number (entry limit overflow): Cancel the entry and re-enter a correct number.
- When you make an error in key operation: Clear the error and continue operation.
- When you make an entry beyond a programmed amount entry limit: Check to see if the entered amount is correct. If it is correct, it can be rung up in the MGR mode. Contact your manager.
- When an including-tax subtotal exceeds eight digits: Delete the subtotal by pressing the CL key and press the TL, CA2, CH1 through CH4, or CR1 through CR4 key to finalize the transaction.

ENTRIES

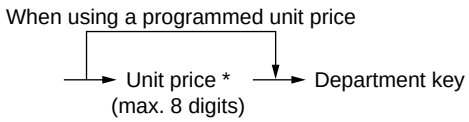
1 Item entries

■ Single item entries

Procedure

Department entries (direct department entries)

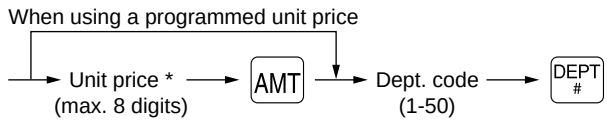
Enter a unit price and press a department key. If you use a programmed unit price, press a department key only.



*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.*

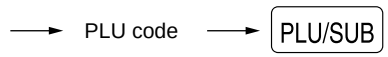
Department entries (indirect department entries)



*Less than the programmed upper limit amounts

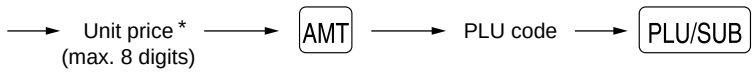
PLU entries (indirect PLU entries)

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



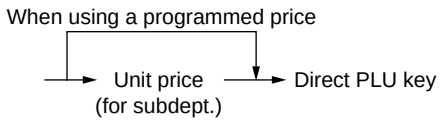
Note *When those PLUs for which the unit price has been programmed as zero (0) are entered, only the sales quantity is added.*

Subdepartment (open PLU) entries

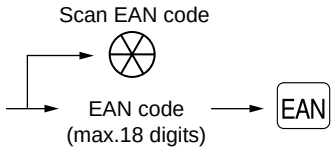


*Less than the programmed upper limit amounts

PLU entries (direct PLU entries)



EAN entries



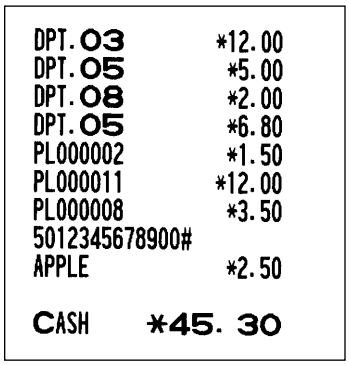
* After scanning an EAN code or pressing the EAN key, you may be requested to enter a unit price with the display "------". In this case, enter the unit price and press the AMT key.

Example

Key operation

1200 [3]
[5]
8 [DEPT #]
680 [AMT] 5 [DEPT #]
2 [PLU/SUB]
1200 [AMT] 11 [PLU/SUB]
[.8]
5012345678900 [EAN]
[TL]

Print



■ 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, [DEPT #], direct PLU, [PLU/SUB] or [EAN] key.

Example

Key operation

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

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

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

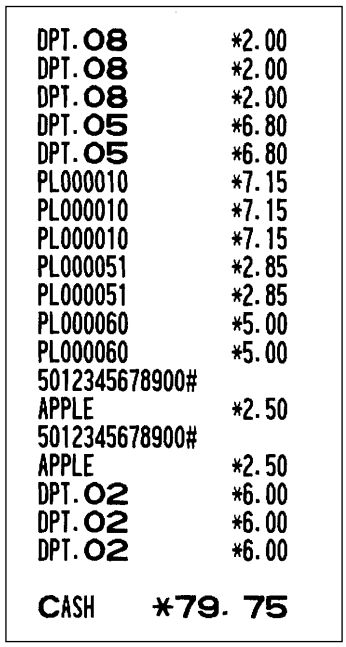
Repeated PLU entry (direct)
[.51]
[.51]

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

Repeated EAN entry
5012345678900 [EAN]
[EAN]

Repeated department entry (direct) using the repeat key
600 [2]
[REPEAT]
[REPEAT]
[TL]

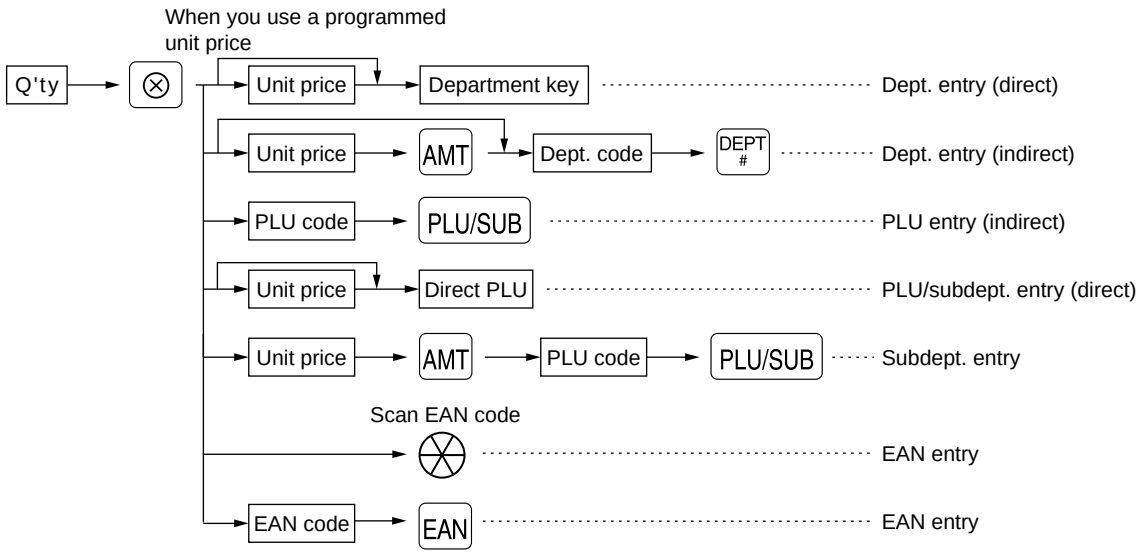
Print



■ 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 an EAN code or pressing the EAN key, you may be requested to enter a unit price with the display "------". In this case, enter the unit price and press the AMT key.
- Q'ty: Up to four digits integer + three digits decimal
- Unit price: Less than a programmed upper limit
- Q'ty x unit price: Up to eight digits

Example

Key operation

Department entry (direct)	7 • 5 ⊗
	165 8
Department entry (indirect)	2 ⊗
	250 AMT
	5 DEPT #
PLU entry	15 ⊗
	13 PLU/SUB
Direct PLU entry	8 • 25 ⊗
	58
Subdepartment entry	3 ⊗
	100 AMT
	60 PLU/SUB
EAN entry	5 ⊗
	5012345678900 EAN
	TL

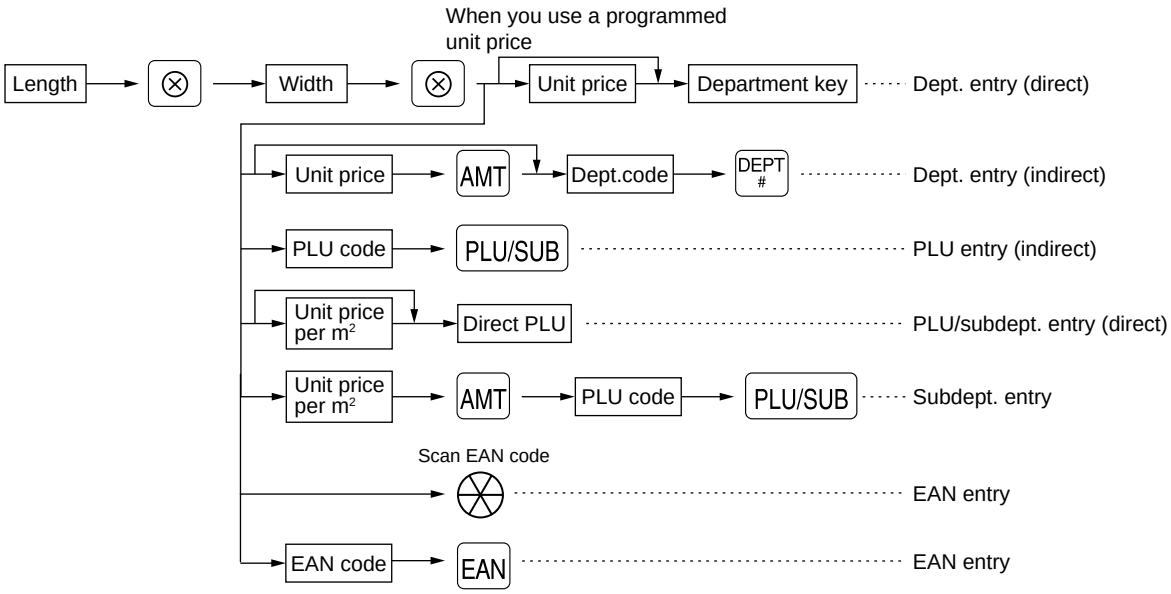
Print

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

CASH      *89. 13
```

■ Successive multiplication entries

This function is practical for example when you enter a sale of items sold by area (square meter).

Procedure



- After scanning an EAN code or pressing the [EAN] key, you may be requested to enter a unit price with the display "------". In this case, enter the unit price and press the [AMT] key.
- Length or width: up to seven digits (4-digit integer + 3-digit decimal)
- Unit price: less than a programmed upper limit
- Length x Width x Unit price: up to eight digits

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

Example

	Key operation
Department entry	3 ⊗
	4 ⊗
	400 5
PLU entry	1 • 5 ⊗
	2 • 5 ⊗
	8 PLU/SUB
Subdepartment entry	1 • 75 ⊗
	1 • 75 ⊗
	600 AMT
	6 PLU/SUB
EAN entry	4 ⊗
	5 ⊗
	5099887654302 EAN
	TL

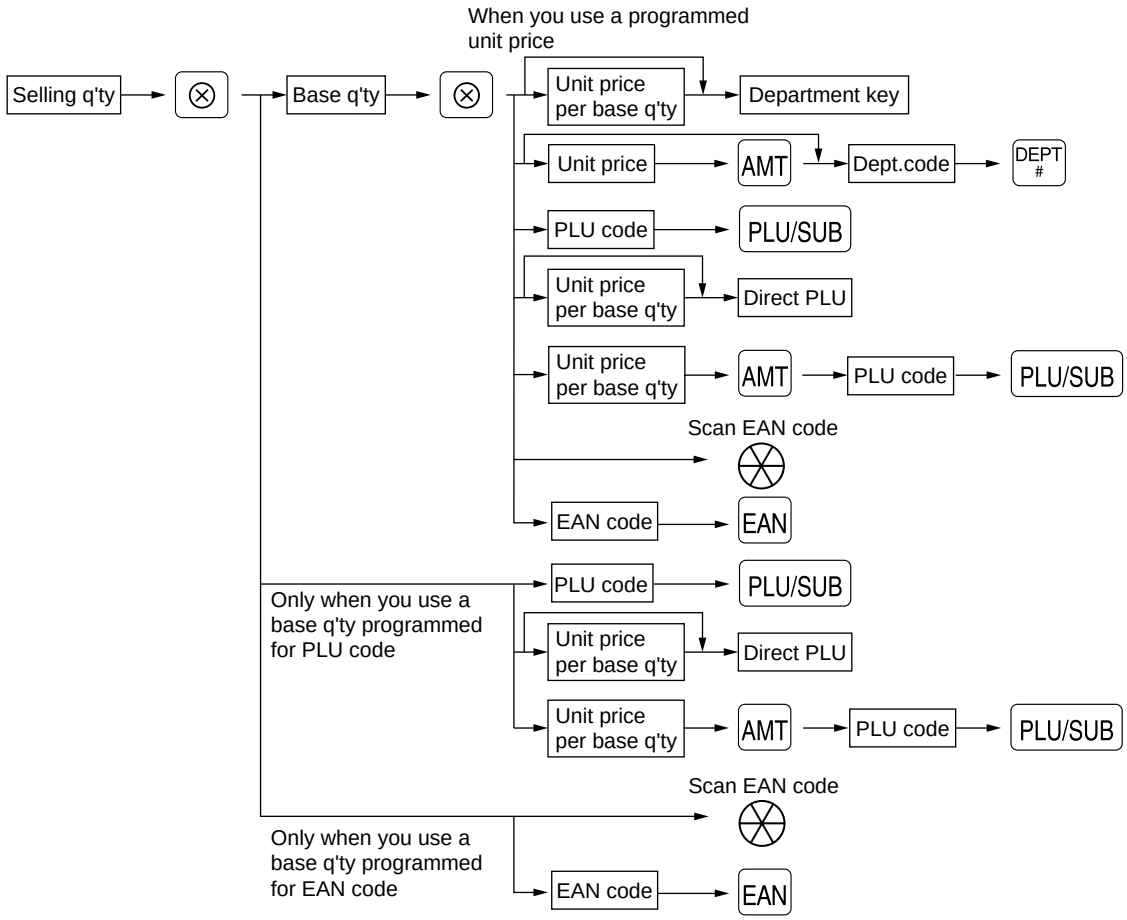
Print

```
3x 4x 4.00
DPT.05          *48.00
1.5x 2.5x 3.00
PL000008        *11.25
1.75x 1.75x 6.00
PL000006        *18.38
4x 5x 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 an EAN code or pressing the [EAN] key, you may be requested to enter a unit price with the display "------". In this case, enter the unit price and press the [AMT] 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 ⊗ 10 ⊗ 600 [7]	7x 10/ 6.00 DPT.07 *4.20
PLU entry	8 ⊗ 5 ⊗ 35 [PLU/SUB]	8x 5/ 3.00 PL000035 *4.80
EAN entry	5 ⊗ 6 ⊗ 5045678912304 [EAN]	5x 6/ 8.75 5045678912304# *7.30
	[TL]	CASH *16.30

■ Single item cash sale (SICS)/single item finalize (SIF) entries

SICS entries

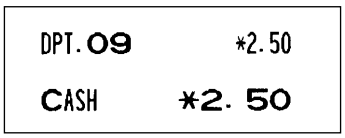
- This function is useful when a sale is for only one item and is for cash; such as a pack of cigarettes. This function is applicable only to those departments that have been set for SICS or to their associated PLUs, subdepartments or EANs.
- The transaction is finalized and the drawer opens as soon as you press the department key, [DEPT #] key, [PLU/SUB] key , the direct PLU key or [EAN] key.

Example

Key operation

250
For finishing the transaction → [9]

Print



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

SIF entries

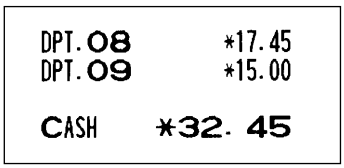
- If an entry to a department, PLU/subdepartment or EAN set for SIF follows the ones to departments, PLUs/subdepartments or EANs not set for SIF, the transaction is finalized immediately as a cash sale.
- Like the SICS function, this function is available for single-item cash settlement.

Example

Key operation

1745 [8]
1500
For finishing the transaction → [9]

Print



■ Link PLU/EAN link entries

In case that you register a PLU or EAN that has any PLU linked with the PLU or EAN, the linked PLU(s) are automatically registered together with the leading link PLU or EAN when it is registered. The print format on the receipt depends on the programming (#2616) as described below.

Printing detailed information

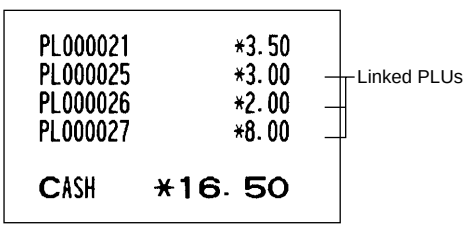
The description texts and amounts of the leading link PLU/EAN and the linked PLUs are printed individually.

Example (In case of link PLU)

Key operation

21 [PLU/SUB] [TL]

Print



Printing leading link PLU/EAN and total sales amount

The description text of the leading link PLU/EAN and the total sales amount of the leading link PLU/EAN and the linked PLUs are printed.

Example (In case of link PLU)

Key operation	Print
21 [PLU/SUB] [TL]	PL000021 *16.50 (Total amount) CASH *16.50

Note *If a discount entry is made for a link PLU/EAN link, the discount amount is calculated based on the total sales amount. The discount itself is given to the leading link PLU/EAN.*

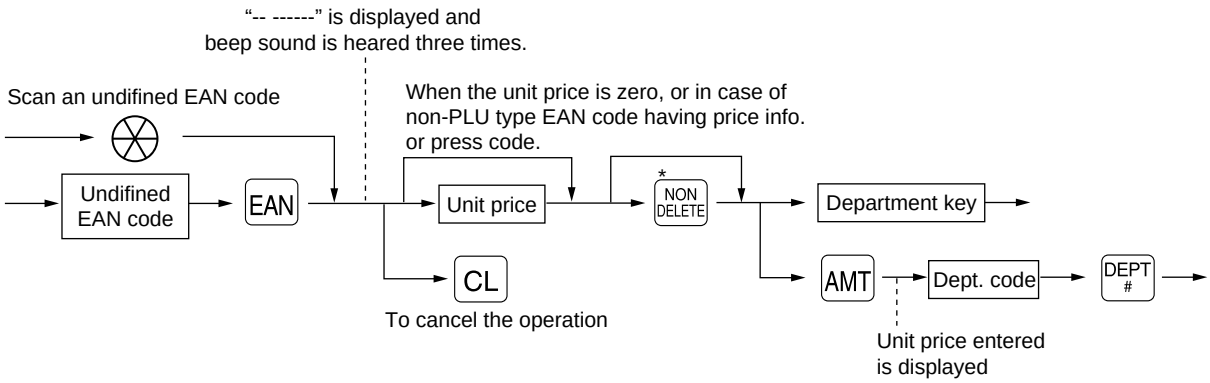
■ EAN learning function

When you enter or scan an undefined code, you are required to enter its unit price and the associated department. The code, associated department and unit price entered are stored in the EAN file and used for future EAN 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 EAN code, the text of its associated department is applied.*
- *You can use the EAN 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 EAN code entered from the non-accessed EAN delete function (deletion by executing #105 in Z1 mode).

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

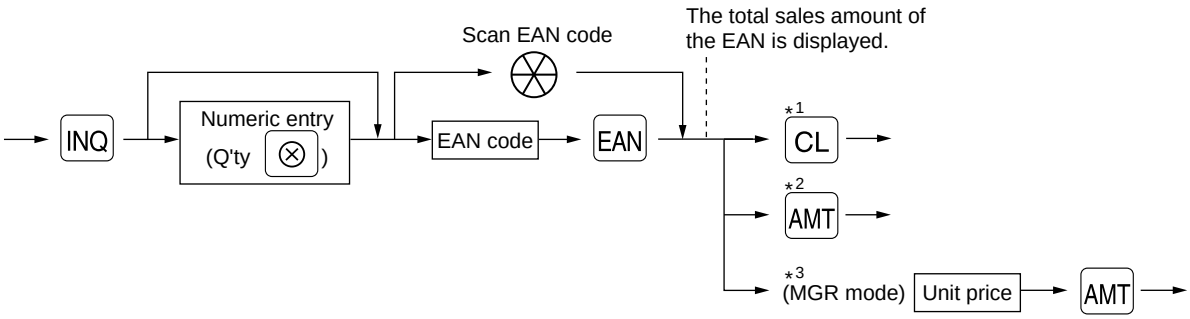
Example

Key operation	Print
"-- ------" is displayed. → 5056789123404 [EAN] 750 [5] [TL]	5056789123404# DPT.05 *7.50 CASH *7.50

■ Price inquiry (view) function (for EANs)

You can use this function when you want to know the unit price of the EAN 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 EAN 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

5 PLU/SUB
INQ
"----" is displayed. →
Price is displayed. → 5089123456708 EAN
AMT
TL

Print

```
PL000005          *2.00
5089123456708#
GRAPE             *5.20

CASH             *7.20
```

■ Price change function (for EANs)

Note *To use this function, consult your dealer.*

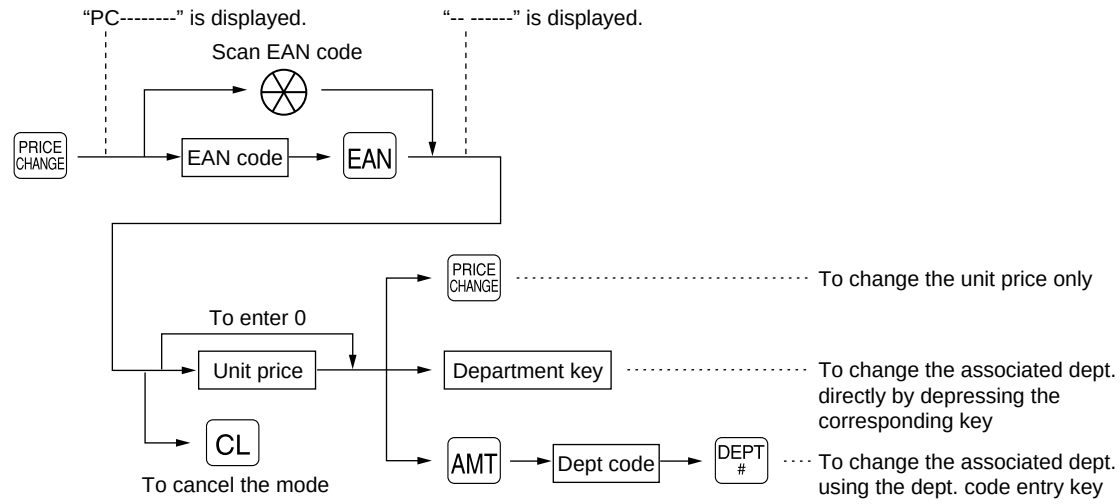
You can use this function when you need to change the unit price or associated department of an EAN item in REG/MGR mode.
There are two methods for change:

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

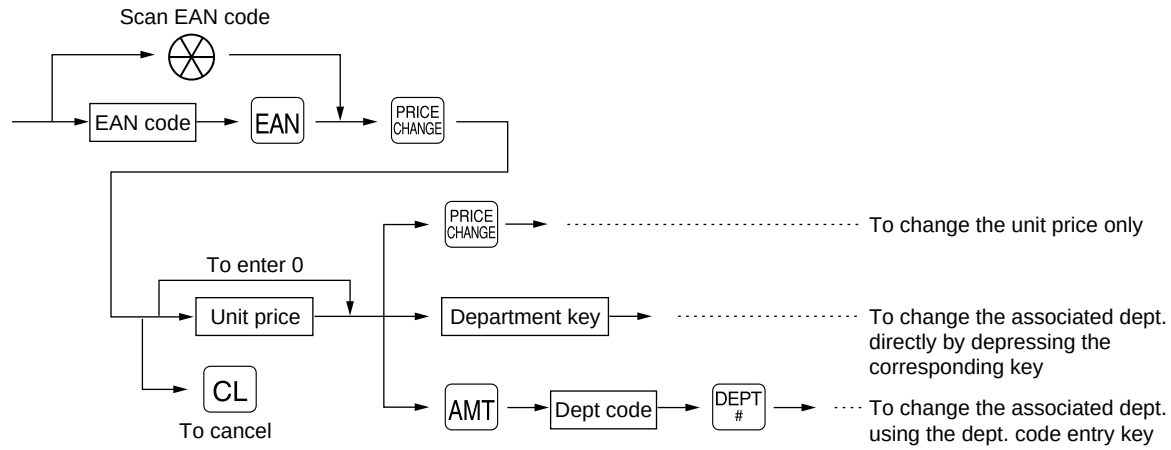
Note *For the Non-PLU type EAN codes having price info. and press codes, the prices in the codes have the priority over the preset prices. So, for these codes, a changed price is valid only when price change is executed.*

Procedure

Price change mode



Changing price during a transaction



Example

• Price change mode

Key operation	Print
5087654321106 [PRICE CHANGE] [EAN] [PRICE CHANGE]	*PR. CHNG * DEPT01 5087654321106# ORANGE *6.00

• Changing a price during a transaction

Key operation	Print
5087654321106 [EAN] [PRICE CHANGE] 600 [PRICE CHANGE] [TL]	5087654321106# ORANGE *5.30 5087654321106# ORANGE ⊖-5.30 5087654321106# ORANGE *6.00 CASH *6.00

The journal printer prints the following format in this position.

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 EAN entry is voided of 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.*

2 Displaying subtotals

Your machine provides the following two types of subtotals:

■ Normal subtotal

This is a subtotal which is displayed by pressing the [ST] key. When you press it, the subtotal of all entries which have been made is displayed and the symbol "□" will light up in the display.

Example

Key operation

100 [9]
100 [2]
700 [3]
[ST]
[TL]

Print

```
DPT.09        *1.00
DPT.02        *1.00
DPT.03        *7.00

CASH          *9.00
```

Note *Subtotal will not be printed on a receipt on the current factory setting. If you want to print it, consult your dealer.*

■ Difference subtotal (Differ ST)

This is a subtotal which is printed by pressing the [DIFFER ST] key. You can get two or more difference subtotals in one transaction.
When you press it first, the difference subtotal of all entries which have been made is displayed and printed. If you press it second, you will get the difference subtotal of entries which have been made after you last got it.
Taxes are calculated each time you press the [DIFFER ST] key, and taxes and taxable subtotals are printed on the receipt according to the programming (job #2616).

Example

Key operation

100 [9]
200 [2]
[DIFFER ST]
700 [3]
[TL]

Print

```
DPT.09        *1.00
DPT.02        *2.00
DIFF ST       *3.00
DPT.03        *7.00
DIFF ST       *7.00

CASH         *10.00
```

3 Finalization of transaction

■ Cash or cheque tendering

Press the [ST] key to get a subtotal, enter the amount tendered by your customer, then press the [TL] or [CA2] key if it is a cash tender or press one of the [CH1] through [CH4] key if it is a cheque tender. When the amount tendered is greater than the amount of the sale, your register will show the change due amount and the symbol "⌐ " will light up. Otherwise your register will show a deficit and the symbol "□ " will light up. Make a correct tender entry.

Example

Cash tendering

Key operation	Print
1000 [ST] [TL]	***TOTAL *7.35 CASH *10.00 CHANGE *2.65

Cheque tendering

Key operation	Print
1000 [ST] [CH1]	***TOTAL *7.35 CHECK *10.00 CHANGE *2.65

■ Mixed tendering (cheque + cash)

Example

Key operation	Print
1000 [ST] [CH1] 500 [TL]	***TOTAL *14.56 CHECK *10.00 CASH *5.00 CHANGE *0.44

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

Enter items and press the [TL] or [CA2] key if it is a cash sale or press one of the [CH1] through [CH4] if it is a cheque sale. Your register will display the total sale amount.

Example

Key operation	Print
300 [6] 10 [PLU/SUB] [TL]	DPT.06 *3.00 PL000010 *7.15 CASH *10.15

In the case of cheque sale

CHECK *10.15

■ Credit sale

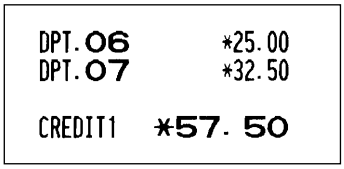
Enter items and press the corresponding credit keys ([CR1] through [CR4]).

Example

Key operation

2500 [6]
3250 [7]
[CR1]

Print



Amount tendering operations (i.e., change calculations) can be achieved by the [CR1] through [CR4] key when a PGM2 programming allows them.

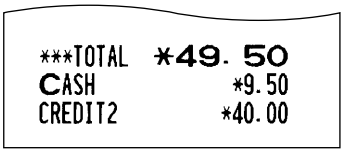
■ Mixed-tender sale (cash or cheque tendering + credit tendering)

Example

Key operation

[ST]
950 [TL]
[CR2]

Print



Note *Press one of the [CH1] through [CH4] keys or the [CR1] through [CR4] keys in place of the [TL] key when your customer makes payment in cheques or by credit account.*

4 Computation of VAT (Value Added Tax)/tax

■ VAT/ tax system

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

Automatic VAT 1-6 system (Automatic operation method using programmed percentages)
This system, at settlement, calculates VAT for taxable 1 through 6 subtotals by using the corresponding programmed percentages.

Automatic tax 1-6 system (Automatic operation method using programmed percentages)
This system, at settlement, calculates taxes for taxable 1 through 6 subtotals by using the corresponding programmed percentages, and also adds the the calculated taxes to those subtotals, respectively.

Manual VAT 1-6 system (Manual entry method using programmed percentages)

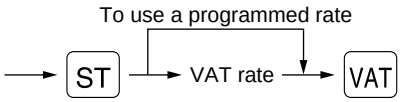
Procedure

→ [ST] → [VAT]

This system provides the VAT calculation for taxable 1 through 6 subtotals. This calculation is performed using the corresponding programmed percentages when the [VAT] key is pressed just after the [ST] key.

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

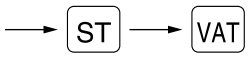
Procedure



This system enables the VAT calculation for the then subtotal. This calculation is performed using the VAT 1 preset percentages when the [VAT] key is pressed just after the [ST] key. For this system, the keyed-in tax rate can be used.

Manual tax 1-6 system (Manual entry method using preset percentages)

Procedure



This system provides the tax calculation for taxable 1 through 6 subtotals. This calculation is performed using the corresponding programmed percentages when the [VAT] key is pressed just after the [ST] key.
After this calculation, you must finalize the transaction.

Automatic VAT 1-3 and automatic tax 4-6 system

This system enables the calculation in the combination with automatic VAT 1 through 3 and automatic tax 4 through 6. The combination can be any of VAT1 through VAT3 corresponding to taxable 1 through taxable 3 and any of tax 4 through 6 corresponding to taxable 4 through taxable 6 for each item. The tax amount is calculated automatically with the percentages previously programmed for these taxes.

Note

- *A PLU/EAN not programmed for any of the tax statuses is registered depending on the tax status of the department which the PLU/EAN belongs to.*
- *VAT/tax assignment can be printed at the fixed right position near the amount on the receipt as follows:*

VAT1/tax1 → *A*
VAT2/tax2 → *B*
VAT3/tax3 → *C*
VAT4/tax4 → *D*
VAT5/tax5 → *E*
VAT6/tax6 → *F*

When the multiple VAT/tax is assigned to a department, a PLU or an EAN, a smaller number of the VAT/tax will be printed. For details, contact your authorized SHARP dealer.

Example

Key operation	Print
(When the manual VAT 1-6 system is selected) 550 [4] [ST] [VAT] [TL]	DPT. 04 *5.50 A SUBTOTAL *5.50 TAX1 ST *5.50 VAT 1 *0.26 NET 1 *5.24 CASH *5.50

■ VAT shift entries

This feature is intended to shift the tax status of a particular department (PLU or EAN) programmed for taxable 1 or taxable 1 and taxable 3.

1. When the VAT shift entry is made for a particular department, PLU or EAN programmed for taxable 1, their tax status shifts to taxable 2.
2. When this entry is made for a particular department (PLU or EAN) programmed for taxable 1 and taxable 3, the tax status “taxable 1” remains unchanged, but the other “taxable 3” is ignored.

Procedure

Press the [VAT SHIFT] to activate the VAT shift prior to entering department(s), PLU(s) or EAN(s) concerned.

Example

Key operation		Print
(When the manual VAT 1-6 system is selected.)	550 [VAT SHIFT] [4] [ST] [VAT] [TL]	DPT.04 *5.50 B SUBTOTAL *5.50 TAX2 ST *5.50 VAT 2 *0.21 NET 2 *5.29 CASH *5.50

5 Auxiliary entries

■ Percent calculations (premium or discount)

- Your register provides the percent calculation for the subtotal or each item entry depending on the programming.
- Percentage: 0.01 to 99.99%

Percent calculation for the subtotal

Example

Key operation		Print
(When a discount of 10% is programmed for the [%1] key)	4 [⊗] 140 [5] 225 [7] [7] [ST] [%1] [TL]	4x 1.40 DPT.05 *5.60 DPT.07 *2.25 DPT.07 *2.25 SUBTOTAL *10.10 -10.00% %1 -1.01 CASH *9.09

Percent calculation for item entries

Example

Key operation	Print
(When a premium of 15% is programmed for the [%2] key) 800 [6] [%2] 90 [PLU/SUB] 7 [•] 5 [%2] [TL]	DPT.06 *8.00 15.00% %2 *1.20 PL000090 *5.00 7.5% %2 *0.38 CASH *14.58

■ Deduction entries

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

Deduction for the subtotal

Example

Key operation	Print
575 [6] 80 [PLU/SUB] [ST] 100 [⊖2] [TL]	DPT.06 *5.75 PL000080 *7.50 (—) 2 -1.00 CASH *12.25

Deduction for item entries

Example

Key operation	Print
675 [7] 75 [⊖] [TL]	DPT.07 *6.75 (—) 1 -0.75 CASH *6.00

■ Refund entries

For a refund entry, press the [RF] key just before you press a department key, [DEPT #] key, direct PLU key, [PLU/SUB] key or [EAN] key or just before you scan an EAN code. The operation before pressing the [RF] key is the same as the one of normal operation. For example, if a refund item is the one entered into a department, enter the amount of the refund, then press the [RF] key and the corresponding department key in this order; if an item entered into a PLU is returned, enter the corresponding PLU code, then press the [RF] and [PLU/SUB] keys; and if a refund item is the one entered into an EAN, press the [RF] key and scan the EAN code.

Example

Key operation

250 RF 6
300 AMT 5 RF DEPT# 7 ⊗ 13 RF PLU/SUB
5089123456708 RF EAN
TL

Print

```
DPT.06          R-2.50
DPT.05          R-3.00
-7x 2.10
PL000013        R-14.70
5089123456708#
GRAPE           R-5.20

CHANGE        *25.40
```

■ 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

Key operation

1230 #
1500 6
CR1

Print

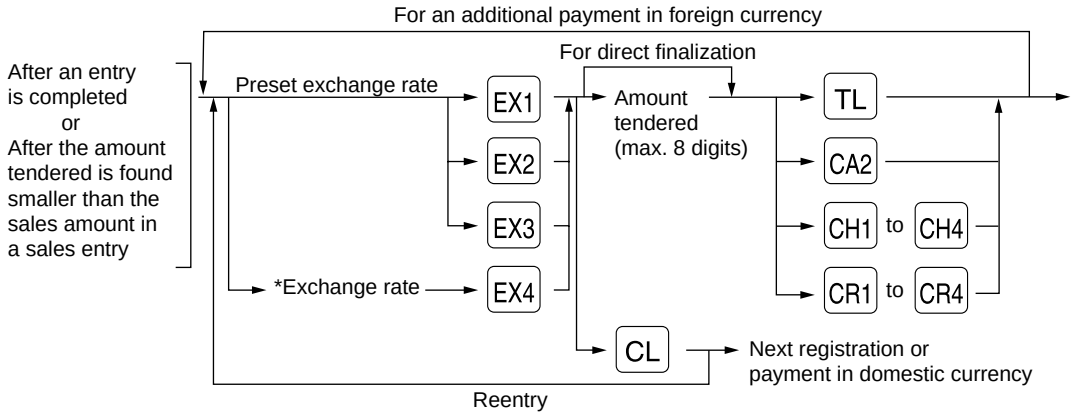
```
#0000000000001230
DPT.06          *15.00

CREDIT1       *15.00
```

6 Payment treatment

■ Currency exchange

Your register allows payment entries of foreign currency. Pressing one of the EX1 through EX4 key creates a subtotal in foreign currency.

Procedure



*Exchange rate: 0.000000 to 999.999999

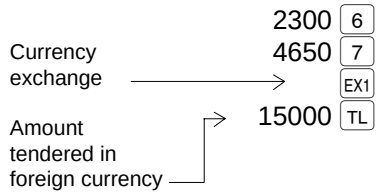
Note

- *When the amount tendered is short, the deficit is shown in domestic currency.*
- *Availability of credit and cheque tendering depends on the programming (#2616) (only for exchange 1).*

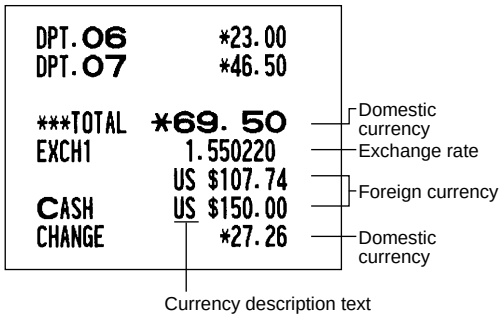
Example

Preset exchange rate (1.550220) - EX1

Key operation



Print

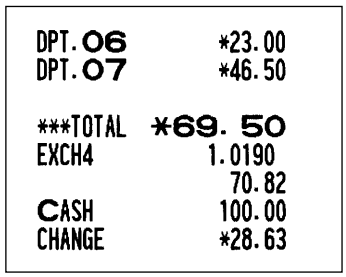


Manual exchange rate - EX4 (The EX4 key can be used only for the manual entry of an exchange rate.)

Key operation

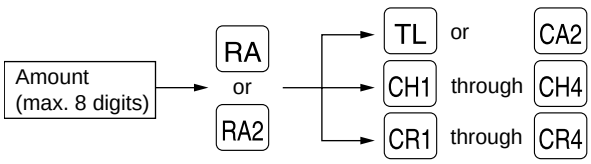
2300 6
4650 7
1 • 0190 EX4
10000 TL

Print



■ Received on account entries

Procedure

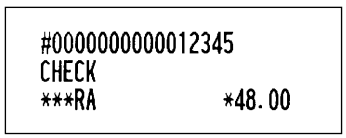


Example

Key operation

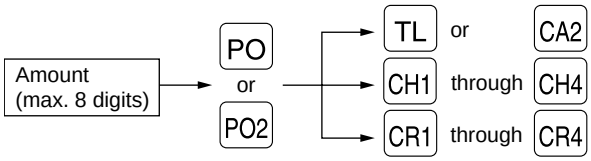
12345 #
4800 RA
CH1

Print



■ Paid out entries

Procedure



Example

Key operation	Print
6789 [#] 3000 [PO] [CH1]	#0000000000006789 CHECK ***PO *30.00

■ No sale (exchange)

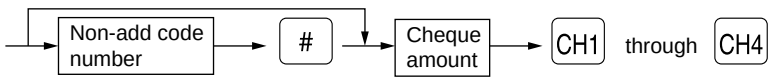
Simply press the [NS] key without any entry. The drawer will open and the printer will print "NO SALE" on both the journal and the receipt. If you let your machine print a non-add code number before pressing the [NS] key, a no sale entry is achieved with a non-add code number printed.

```
#0000000000045678
NO SALE
```

■ Cashing a cheque

Enter the cheque amount, then press one of the [CH1] through [CH4] key.

Procedure



Example

Key operation	Print
6789 [#] 3000 [CH1]	#0000000000006789 CA/CHK *30.00

7 Automatic sequencing key ([AUTO] key) entries

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

Example ([AUTO 2] = 500 [7] [TL])

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

CORRECTION

1 Correction of the last entry (direct void)

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

Example

Key operation

1250 [6]
[∞]
2 [PLU/SUB]
[∞]
5012345678900 [EAN]
[∞]
600 [8]
[%2]
[∞]
328 [9]
28 [⊖]
[∞]
250 [RF] [6]
[∞]
[TL]

Print

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

CASH            *9.28
```

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

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

Example

Key operation

1310 [6]
1755 [7]
10 [PLU/SUB]
[8]
58 [PLU/SUB]
825 [7]
5012345678900 [EAN]
1310 [∞] [6]
[∞] [8]
58 [∞] [PLU/SUB]
5012345678900 [∞] [EAN]
[TL]

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          ∞-13.10
PL000008         ∞-3.00
PL000058         ∞-3.00
5012345678900#
APPLE            ∞-2.50

CASH            *32.95
```

3 Subtotal void

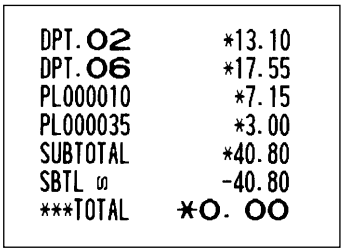
You can void an entire transaction. Once subtotal void is executed, the transaction is aborted and the register issues a receipt.

Example

Key operation

1310 [2]
1755 [6]
10 [PLU/SUB]
35 [PLU/SUB]
Subtotal void [ST] [∞] [ST]

Print



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 corrected by the manager.
The following steps should be taken:

1. If you are making the amount tendered entry, finalize the transaction.
2. Make correct entries from the beginning.
3. Hand the incorrect receipt to your manager for its cancellation.

SPECIAL PRINTING FUNCTIONS

1 Copy receipt printing

If your customer wants a receipt after you have finalized a transaction with the receipt function being 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. If you want to make a copy, please consult your dealer.

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 [⊗]
150 [1]
[TL]

Print

Print on the journal

```
28/08/01 15:54          11
123456 #1161    MAYER
11 NILS
DPT.02           *8.50
3x 1.50
DPT.01           *4.50
CASH      *13.00
```

For receipting→ [RCPT]

Print on the receipt

```
28/08/01 15:54          11
123456 #1161    MAYER
11 NILS

DPT.02           *8.50
3x 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

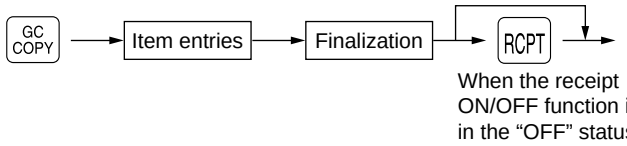
```
28/08/01 15:54          11
123456 #1161    MAYER
11 NILS

      *COPY*
DPT.02           *8.50
3x 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 Guest check copy

You can use this function when you want to take a copy of guest check.
Press the [GC COPY] key and make a desired entry.

Procedure



Note *The guest check copy has nothing to do with the memory.*

Example

Key operation	Print
1480 [GC COPY] [2] [TL]	*G.C COPY* DPT.02 *14.80 CASH *14. 80

3 Printing of header and footer graphic logos

As a default setting, it is set to 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 message 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

OVERLAPPED CASHIER ENTRY

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

Example

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

Note

- *When the cashier and clerk system is applied for your register, you cannot operate the overlapped cashier entry.*
- *The overlapped cashier entry is not effective while the tendering sale is going on.*
- *If any cashier is still making an entry (or has not finalized the transaction yet), the machine does not run in any mode other than REG and MGR and can print no X/Z reports. The error code "E22" and the corresponding cashier code(s) are displayed at this time.*

Key operation	Comments
1. Cashier 1 is assigned.	
(1 CASH #)	The entry by cashier 1 is started.
100 1	
360 3	
3	
2. Cashier 2 is assigned.	The entry by cashier 2 is started.
2 CASH #	(The entry by cashier 1 is interrupted.)
3 ⊗	
150 2	
TL	The transaction by cashier 2 is finalized.
3. Cashier 1 is assigned.	
1 CASH #	The entry by cashier 1 is restarted.
100 1	
360 3	
TL	The transaction by cashier 1 is finalized.

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.)

```
28/08/01 16:15          11
123456 #1164     MAYER
11 NILS
DPT.07           *10.00
DPT.08           *35.00
-----------------------
DPT.08           *35.00

CASH          *45.00
```

2 In case of printer error

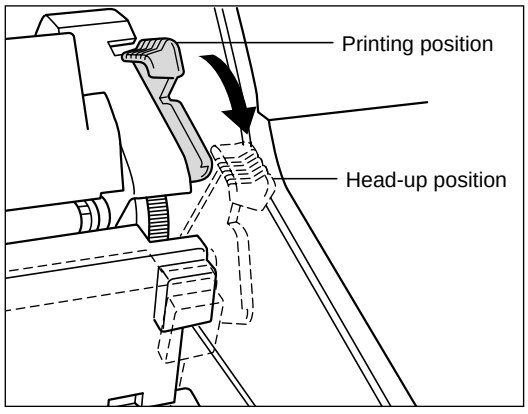
If the printer runs out of paper, the printer will stall, "PPPPPPPPPP" will appear on the display, and the register will start to continuously produce an intermittent beeping tone. Key entries will not be accepted. Referring to "5. Installing and removing the paper roll" in this chapter, install a new 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:
  Dusty and humid places
  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.

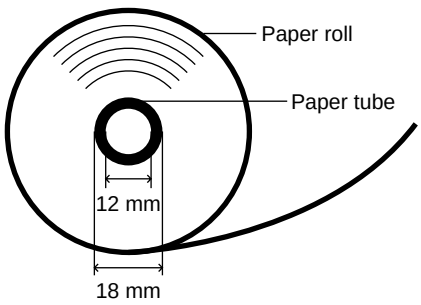
■ Cautions in handling the recording paper (thermal paper)

• Use only the paper specified by SHARP.
• Do not unpack the thermal paper until you are ready to use it.
• Avoid 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
  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 the 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

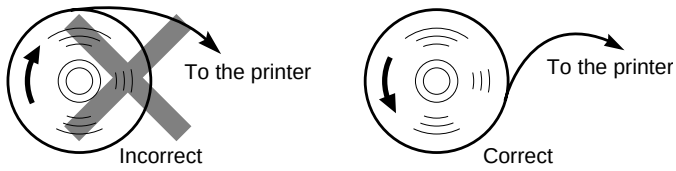
Paper width:	44.5 ± 0.5 mm
Max. outside diameter:	80 mm
Quality:	Thermal paper
Paper tube:	18 mm

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

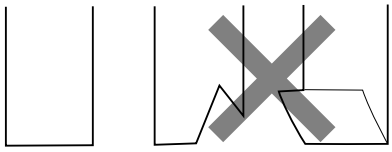
Install the paper roll in the printer. Be careful then to set the roll and cut the paper end correctly.

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)

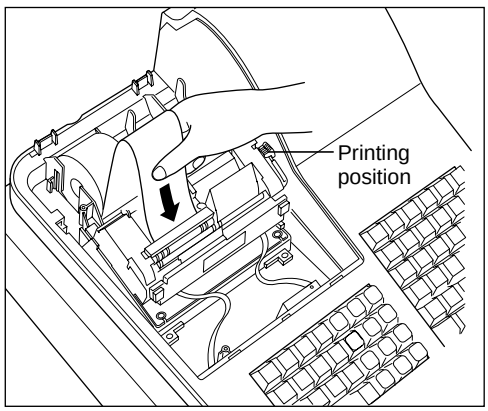


(How to cut the paper end)



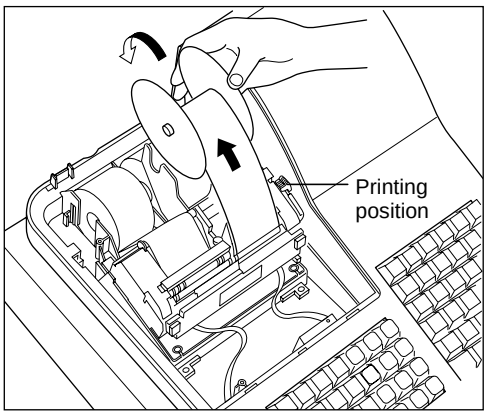
■ Installing the paper roll

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.

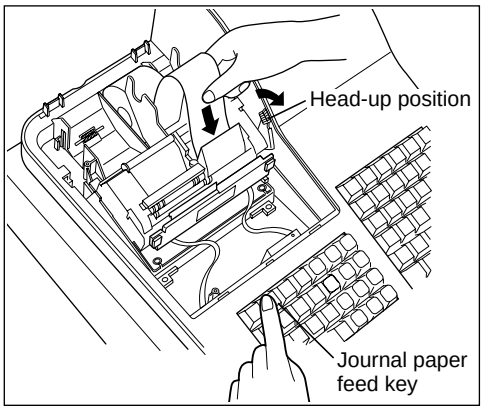
Installing the journal paper roll



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.

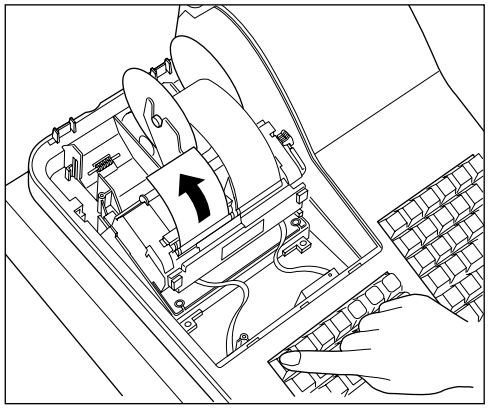
• When you want to manually install a new roll of paper while your machine is turned off, follow the steps shown below:

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.

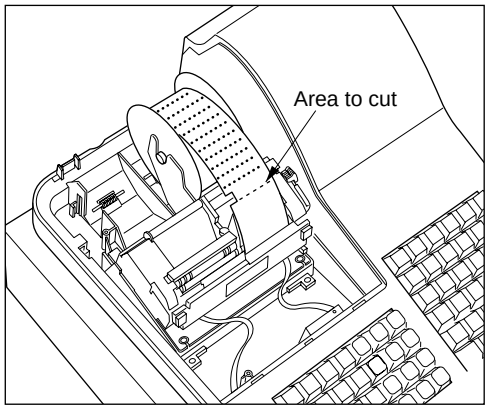
Removing the receipt paper roll



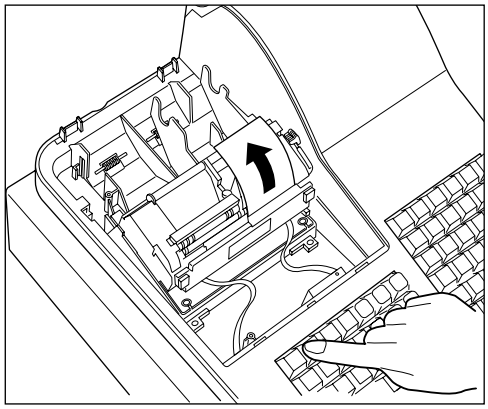
1. Remove the printer cover.
2. Cut the paper behind the printer and near the paper roll.
3. Press the RECEIPT key until the paper remaining in the printer comes out completely.
4. Remove the paper roll from the back of the printer.

Note *Do not pull the paper through the printer.*

Removing the journal paper roll

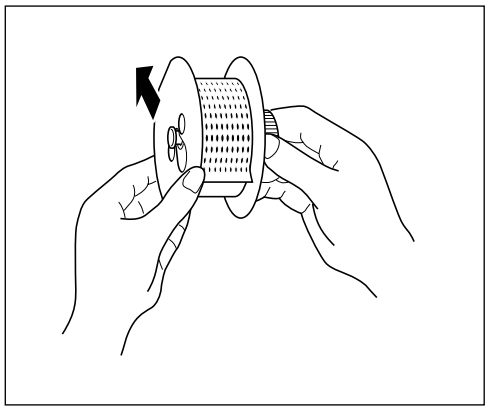


1. Remove the printer cover.
2. Press the JOURNAL key to advance the journal paper until its printed part is out of the way.
3. Cut the paper and remove the take-up spool.

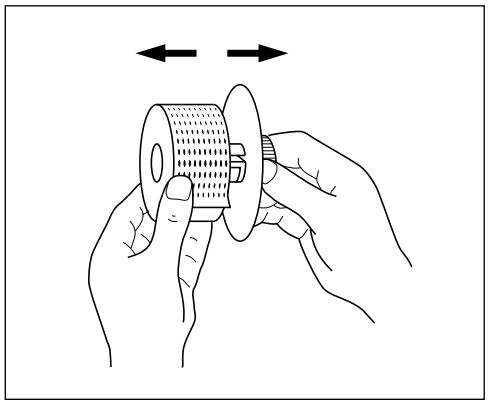


4. Cut the paper behind the printer and near the paper roll.
5. Press the JOURNAL key until the paper remaining in the printer comes out completely.
6. Remove the paper roll from the back of the printer.

Note *Do not pull the paper through the printer.*



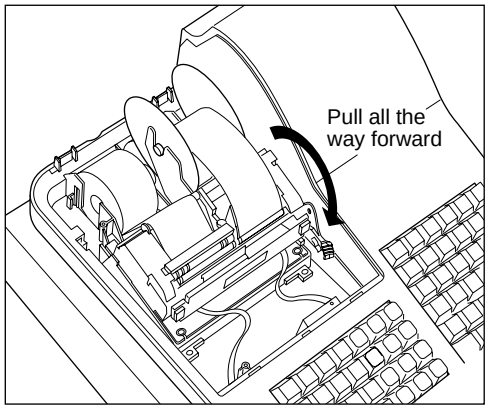
7. Remove the outer side of the take-up spool as shown on the left.



8. Remove the printed journal roll from the take-up spool.

■ Removing a paper jam

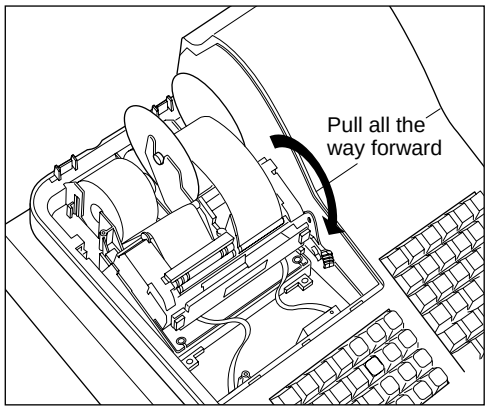
Precaution: Be very careful with the manual cutter, so as not to cut yourself. Never touch the print head immediately after printing, because the head may still be hot.



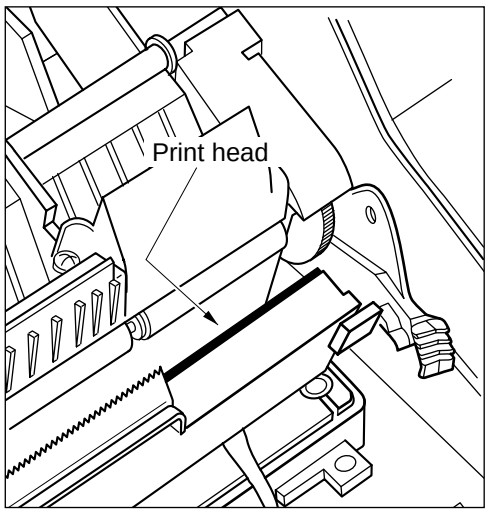
1. Remove the printer cover.
2. Pull the print head release lever all the way forward (after it stops at one position, continue pulling forward until it stops again and cannot be pulled forward any further).
3. Remove the paper jam. Check for and remove any shreds of paper that may remain in the printer.
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 "⏻" position.
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).

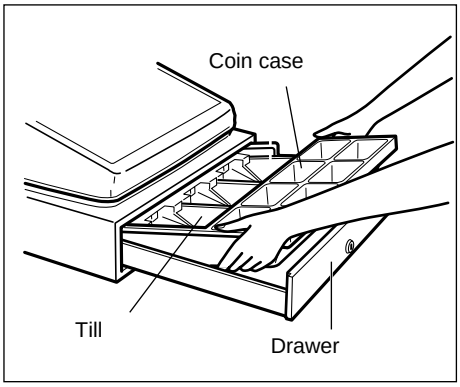


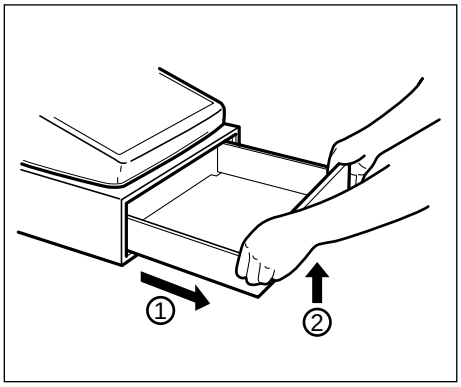
4. Clean the print head with a soft rag moist with ethyl alcohol or isopropyl alcohol.
5. Return the print head release lever to its original position immediately after cleaning.
6. Replace the printer cover.

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

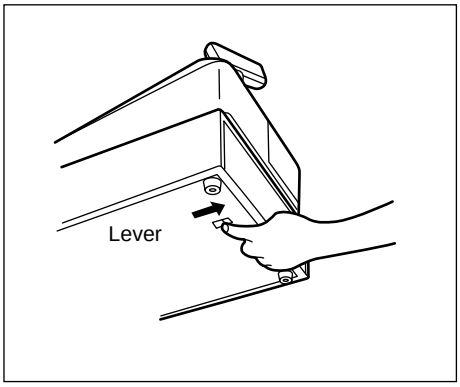
The till in the register is detachable. After closing your business for the day, remove the till from the drawer and keep the drawer open. The coin case is also detachable from the till. To detach the drawer, pull it forward fully with the till removed, and remove it by lifting it up.





8 Opening the drawer by hand

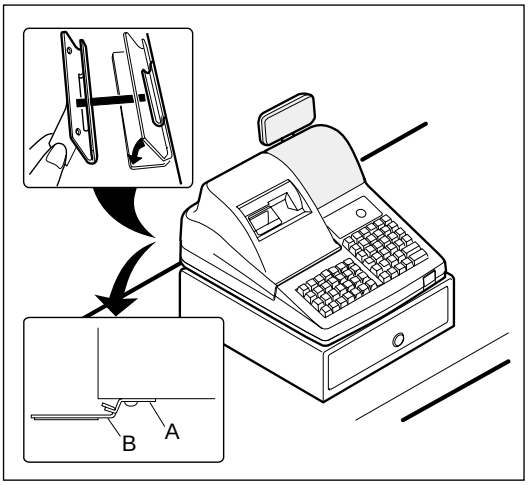
The drawer automatically opens in the usual way. However, when power failure is encountered or the machine becomes out of order, slide the lever located on the machine bottom toward the rear. (See the figure below.) The drawer will not open, if it is locked with a drawer lock key.



9 Installing the fixing angle bracket

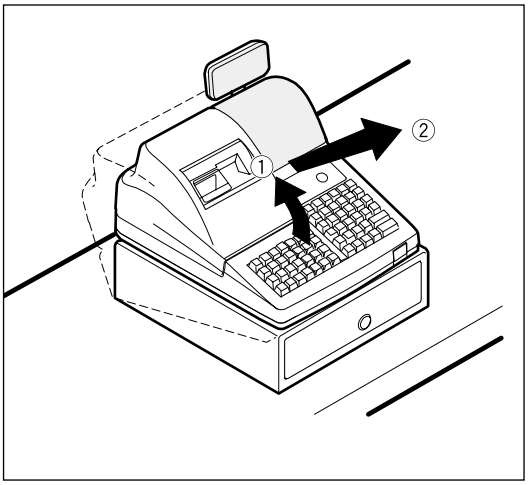
To prevent the register from moving when the drawer opens, the fixing angle bracket is supplied with the register. By attaching the bracket to the table where the register is installed, you can hook the register on this bracket and secure the register to its position.

How to install the fixing angle bracket



1. Thoroughly clean the location where the fixing angle bracket (B) is to be placed.
2. Peel off the adhesive tape on the fixing angle bracket.
3. Hook the angle bracket onto the hook (A) that is located at the bottom rear of the register.
4. Firmly stick the fixing angle bracket to the table surface that your cleaned above.

How to remove the register from the fixing angle bracket



1. Lift up the front of the register and pull the register towards you.

10 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 “⏻”.	• 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 a clerk 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.
E11	Compulsory depression of the ST key for direct finalization	Press the ST key and continue the operation.
E12	Compulsory tendering	Make a tendering operation.
E22	Overlapped cashier error	
E23	Cashier resetting over error	
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.
E58	Undefined clerk code is entered.	Enter a correct clerk code.
E67	Registration buffer is full.	
E76	The drawer is still opened.	Close the drawer.

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-05DW
•Till model ER-58CC and till cover model ER-03CV
•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-A450S	
Dimensions:	355 (W) x 424 (D) x 308 (H) mm	
Weight:	12.9 kg	
Power source:	Official (nominal) voltage and frequency	
Power consumption:	Stand-by 14W	
	Operating 41W (max.)	
Working temperature:	0 °C 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: 44.5 ± 0.5 mm	
	Max. diam.: 80 mm	
	Quality: High quality (0.06 to 0.08 mm thickness)	
Cash drawer:	5 slots for bill and 8 for coin denominations	
Accessories:	Manager key	2
	Submanager key	2
	Operator key	2
	Drawer lock key	2
	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.

FOR CUSTOMERS IN U.K.

IMPORTANT

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

BLUE:	**Neutral**
BROWN:	**Live**

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

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

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

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

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

Environment Protection

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

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

Umweltschutz

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

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

Protection de l'environnement

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

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

Miijöskydd

Denna produkt nöddrivs av batteri.

Vid batteribyte skall följande iakttagas:

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

SHARP

SHARP CORPORATION

Printed in Korea / Imprimé en Corée / Gedruckt in Korea / Impreso en Corea
T(TINSE2433BHZZ)①