## SHARP.

## ELECTRONIC CASH REGISTER

## MODEL

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 $93 / 68 / E E C$.
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.


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-A440.
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 radiation, unusual temperature changes, high humidity or exposed to water 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

## INSTALLING AND REMOVING THE PRINTER COVER



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.


## - Paper release lever

Used to load or unload the machine with paper roll (receipt and journal paper). Keep the lever down to take in or out the paper roll.

Note
Do not attempt to take in or out the paper roll without pressing this lever. This may result in damage to the printer.

## KEYBOARD

## 1 Standard keyboard layout

| RECEPT | JuAnal | \# | CL | 7 | 8 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RCPT | $\Theta$ | NS | * | 4 | 5 | 6 |
| \%1 | PO | RA | $\underset{1}{\text { AUTO }}$ | 1 | 2 | 3 |
| \%2 | RF | $\infty$ | $\underset{2}{\text { AUTO }}$ | 0 | 00 | - |


| PLU/SUB |  | AMT | VAT | EX1 | $\underset{\text { \# }}{\text { CASH }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | 10 | 15 | 20 | EX2 | CR3 |
| 4 | 9 | 14 | 19 | CR1 | CR2 |
| 3 | 8 | 13 | 18 | CH1 | CH2 |
| 2 | 7 | 12 | 17 |  |  |
| 1 | 6 | 11 | 16 |  | L |

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

| $\underset{\text { RECEPT }}{\boldsymbol{\wedge}}$ | Receipt paper feed key | VAT | Value added tax key |
| :---: | :---: | :---: | :---: |
| $\begin{array}{\|l\|} \hline \text { JOUBNAL } \\ \hline \end{array}$ | Journal paper feed key | \# | Non-add code key |
| 0 | Numeric keys | CASH | Cashier code entry key |
| 2 |  | RCPT | Receipt print key |
| 9 |  | $\Theta$ | Discount key |
| 00 |  | AUTO 1 | Automatic sequencing 1 and 2 keys |
| - | Decimal point key | AUTO <br> 2 |  |
| $\otimes$ | Multiplication/split-pricing key | \%1 | Percent 1 and 2 keys |
| CL | Clear key | \%2 |  |
| 1.7 | Department keys | NS | No-sale key |
| 2 |  | RA | Received-on-account key |
| 20 |  | PO | Paid-out key |
| PLU/SUB | Price lookup/subdepartment key | RF | Refund key |
| AMT | Amount entry key | $\infty$ | Void 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 35 and 43. 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 " $\downarrow$ " position.


The mode switch has these settings:
$\downarrow: \quad$ 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.) It can also be used for displaying the time and printing the employee arrival and departure times. And it can be used to toggle receipt state "ON" and "OFF" by pressing the Rcci key.
REG: For entering sales
PGM1: To program those items that need to be changed often: e.g., unit prices of departments or PLUs, 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.
$\mathbf{X 1 / Z 1}$ : 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: $(2 \rightarrow 3 \rightarrow 4 \cdots \cdots \rightarrow 0 \rightarrow 1 \rightarrow 2 \cdots)$

## Receipt function status:

The indicator "_" appears in the ninth position when the receipt function is put in the OFF status.
Time: $\quad$ 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

$\Gamma: \quad$ Appears in the tenth place during programming.
E: Appears in the tenth place when an error is detected.

- (Floating): Appears when a minus department or PLU/subdepartment entry is made or when a discount, refund, or void entry is made.
口: Appears in the tenth place when the subtotal is displayed or when the amount tendered is smaller than the sale amount.
[: Appears in the tenth place when the Ex1 through Ex4 key is pressed to calculate a subtotal in foreign currency.
$F: \quad$ Appears in the tenth place when a transaction is finalized by pressing the $\mathrm{TL}, \mathrm{CA}_{2}, \mathrm{CHH1}^{2}$ through CH4, or CR1 through CR4 key.
[: Appears in the tenth place when the change due amount is displayed or when the cash/cheque declaration is compulsory.
$\|: \quad$ Appears in the tenth place when the validation printing is compulsory.
$u$ : Appears in the tenth place when the $\infty$ 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


(Job code)

## Direct Programming

## Sample procedure


(Object key)

## 2 How to program alphanumeric characters

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

|  | To enter the letter "\#", press (4nF-2) K ${ }^{\text {K }}$ |
| :---: | :---: |
| [K] | To enter the upper-case letter " $K$ ", press $\square$ To enter the lower-case letter " $k$ ", press |

- 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 (IDC) key before you enter the corresponding character.

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

$$
\begin{array}{llllllllllll}
(\mathrm{DC}) & \mathrm{S} & (\mathrm{DC}) & \mathrm{H} & (\mathrm{DC}) & A & (\mathrm{DC}) & \mathrm{R} & (\mathrm{DC}) & P \\
\hline
\end{array}
$$

- Letters of alphabets "A" through " $Z$ ", " $\varnothing$ " 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 ([4HF) key before you enter the character. To return to the upper-case letter mode, press the (sHf) key again.


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



- Symbols and special letters are programmable by using the (sh rif) key. To enter a character, press the (sh rim) key before you enter the corresponding character.


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



## 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 ( Be

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.

$$
X X X \longrightarrow 00 \quad X X X: \text { Character code (3 digits) }
$$

- 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


## Alphanumeric character code table

| Code | Character |
| :---: | :---: |
| 001 | á |
| 002 | â |
| 003 | ê |
| 004 | ̂̂ |
| 005 | Ì |
| 006 | í |
| 007 | Ô |
| 008 | Ó |
| 009 | û |
| 010 | ú |
| 011 | œ |
| 012 | Ú |
| 013 | ú |
| 014 | '̛' |
| 015 | ó |
| 016 | $\Lambda$ |
| 017 | $\Psi$ |
| 018 | $\Gamma$ |
| 019 | " |
| 020 | $\Omega$ |
| 021 | $\Delta$ |
| 022 | $\theta$ |
| 023 | 沫 |
| 024 | $\Pi$ |
| 025 | $\Sigma$ |
| 026 | Y |
| 027 | $\Phi$ |
| 028 | Ú |
| 029 | Ú |
| 030 | Ó |
| 031 | Ó |
| 032 | (space) |
| 033 | ! |
| 034 | " |
| 035 | \# |
| 036 | \$ |
| 037 | \% |
| 038 |  |
| 039 | , |
| 040 | ( |
| 041 | ) |
| 042 | * |
| 043 | + |
| 044 | , |
| 045 | - |


| Code | Character |
| :---: | :---: |
| 046 | . |
| 047 | 1 |
| 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 | $\bigcirc$ |
| 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 | $\wedge$ |
| 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 | I |
| 109 | m |
| 110 | n |
| 111 | 0 |
| 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 | B |
| 127 | ¢ |
| 128 | !! |
| 129 | 1 |
| 130 | 2 |
| 131 | 3 |
| 132 | 4 |
| 133 | 1/2 |
| 134 | F/T |
| 135 | $\leftarrow$ |


| Code | Character |
| :---: | :---: |
| 136 | $\rightarrow$ |
| 137 | $\infty$ |
| 138 | $\bigcirc$ |
| 139 | 4 |
| 140 | $\checkmark$ |
| 141 | F |
| 142 | T |
| 143 | $\downarrow$ |
| 144 | Ç |
| 145 | - |
| 146 | ¿ |
| 147 | Ù |
| 148 | à |
| 149 | Æ |
| 150 | $\varnothing$ |
| 151 | Å |
| 152 | $a$ |
| 153 | é |
| 154 | è |
| 155 | Pt |
| 156 | i |
| 157 | N |
| 158 | ò |
| 159 | £ |
| 160 | ¥ |
| 161 | - |
| 162 | $\Gamma$ |
| 163 | 」 |
| 164 | - |
| 165 | . |
| 177 | Á |
| 178 | Í |
| 180 | $\overline{\mathrm{A}}$ |
| 181 | $\overline{\mathrm{a}}$ |
| 182 | $\overline{\mathrm{E}}$ |
| 183 | $\overline{\mathrm{e}}$ |
| 184 | T |
| 185 | $\overline{\text { i }}$ |
| 186 | $\bar{U}$ |
| 187 | $\overline{\mathrm{u}}$ |
| 188 | N |
| 189 | ṇ |
| 190 | Č |
| 191 | S |
| 192 | C |


| Code | Character |
| :---: | :---: |
| 193 | i |
| 194 | $\dot{G}$ |
| 195 | S |
| 196 | G |
| 197 | $\dot{\mathrm{g}}$ |
| 198 | K |
| 199 | k |
| 200 | L |
| 201 | 1 |
| 202 | Ž |
| 203 | D |
| 204 | đ |
| 205 | C |
| 206 | ć |
| 207 | € |
| 208 | P |
| 209 | - |
| 210 | ě |
| 211 | S |
| 212 | Č |
| 213 | ž |
| 214 | ý |
| 215 | Ü |
| 216 | n̆ |
| 217 | $\checkmark$ |
| 218 | - |
| 219 | ř |
| 224 | * |
| 225 | § |
| 226 | $\varnothing$ |
| 227 | - |
| 228 | $\uparrow$ |
| 229 | ] |
| 230 | [ |
| 231 | " |
| 232 | ä |
| 233 | Ö |
| 234 | ü |
| 235 | æ |
| 236 | å |
| 237 | É |
| 238 | ñ |
| 253 | *(DC) |
|  |  |
|  |  |

[^0]
## 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, 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



## Example Aug. 26, 1998



Time PGM2
Set the time using the 24 -hour format. For example, when the time is set to $2: 30 \mathrm{AM}$, 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



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



## 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



To program for another dept.

* Unit price: max. six digits (9999.99)


## Example

Programming the unit price 10.00 for department 1

1. Press the department 1 key.


| 01 | 0.00 |
| :--- | :--- |

- The current unit price will be displayed.

2. Enter the unit price " 1000 ." 1000
3. Press the $\mathrm{ST}^{\mathrm{T}}$ key to program this setting.

| 01 | 1000 |
| :--- | :--- |


| 02 | 0.00 |
| :--- | :--- |

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

TL
0.00

## Print



## Functional selection <br> PGM 2

## Procedure

| 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 |
| $\bar{F}$ | 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 | t digit for HALO | 0 through 7 |

## 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: $B C D E F G=100100,110100,111010$


## 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 $1 \times 10^{\text {J }}$. 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 17, however, the upper limit amount is 99999.99.


## Example <br> 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

 $J=5$.ABCDEFGHIJ

1. Press the department 4 key twice.

- 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:
$\square \cdots \cdots$ Moves the blinker to the right.
$00 \cdots \cdots \cdot$ Moves the blinker to the left.


0000001095

$$
000000100 \text { 9-5.':- }
$$

3. Press the $\otimes$ key to program this setting.
$\otimes$
$\because 0^{-2}-000000017$
4. Press the TL key to finalize the programming and generate a programming report.


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 PLUSUB key. 1 PLU/SUB
$000001 \quad 0.00$
2. Enter the unit price "125." 125
3. Press the $\triangle T$ key to program this setting. ST

| 000001 | 125 |
| :--- | :--- |

0000020.00
4. Press the TL key to finalize the programming and generate a programming report.

TL $\square$
Print


- Functional selection


## Procedure



| Item |  | Selection: | Entry: |
| :---: | :---: | :---: | :---: |
| A | Sign (plus/minus) | Plus | 0 |
|  |  | Minus | 1 |
| B | VAT6 or TAX6 | No | 0 |
|  |  | Yes | 1 |
| $\bar{C}$ | VAT5 or TAX5 | No | 0 |
|  |  | Yes | 1 |
| $\overline{\text { D }}$ | VAT4 or TAX4 | No | 0 |
|  |  | Yes | 1 |
| $\overline{\mathrm{E}}$ | VAT3 or TAX3 | No | 0 |
|  |  | Yes | 1 |
| $\bar{F}$ | 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 |
| :---: | :---: | :--- |
| DepartmentPLU/ <br> 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: $B C D E F G=100100,110100,111010$
- 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 PLUSUB 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 PLUSUB 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 $H=2$.

1. Enter the PLU code " 1 "
and press the PLUSUB key twice.

1 PLU/SUB PLU/SUB
00000012

ABCDEFGH
P 00000002
2. Set the parameters $A$ to $H$.

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

```
P 00000012
```

3. Press the $\otimes$ key to program this setting.
4. Press the TL key to finalize the programming and generate a programming report.

TL


## - PLU assignment to departments PGM 1 PGM 2


*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
- Item validation print compulsory/non-compulsory
- 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.

$$
1 \text { PLUSUB PLU/SUB PLUSUB }
$$

$$
\begin{array}{|llllll|}
\hline 000001 & 01 \\
\hline
\end{array}
$$

2. Press the the department 2 key to assign PLU code 1 to department 2.
```
000002 01
```

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

| 00003 | 01 |
| :--- | :--- | :--- | :--- | :--- |

4. Press the $T L$ key to finalize the programming and generate a programming report.

TL
Print

| Ye"bumx |  |  |
| :---: | :---: | :---: |
| $\Gamma$ |  | - Associated |
| F0000010\%) | 100 |  |
| T1. | 1.25 |  |
| FLo00001. | C0 |  |
| 002 |  |  |
| Fououe $(\underline{\square}$ | 100 |  |
|  | 0.00 |  |
| Floovode | $\mathrm{C0}$ |  |
| 0 P |  |  |

## 4 Programming for discount keys

- Deduction amount $(\Theta)$ PGM 1 PGM 2


## Procedure


*Deduction amount: 0-999999

## Example Assigning " 10.00 " to the $\Theta$ key

1. Press the $\Theta$ key.
2. Enter the deduction amount "1000."
3. Press the ST key to program this setting.
4. Press the TL key to finalize the programming and generate a programming report.

1000

| 001 | 0.00 |
| :--- | :--- |


| 001 | 1000 |
| :--- | :--- |


| 001 | 10.00 |
| :--- | :--- |

## Print



## - High amount lockout (HALO) and +/- sign ( $\Theta$ ) PGM 2

## Procedure



| * | Item: | Selection: | Entry: |
| :--- | :--- | :--- | :--- |
| $\mathbf{A}$ | Sign (plus/minus) | Plus | 0 |
| $\mathbf{B}$ | Significant digit for HALO |  | 1 |
| $\mathbf{C}$ | Number of zeros to follow the significant digit for HALO | 1 through 9 |  |

## Note

## HALO (High Amount Lockout)

$B C$ is the same as $B \times 10^{\circ}$.
For example, presetting 14 (100.00) here means that amount entries of up to 100.00 are allowed in the REG mode. When you preset 17, however, the upper limit amount is 99999.99.

## Example

Programming for the $\Theta$ key as follows: $\mathrm{A}=1, \mathrm{~B}=1$, and $\mathrm{C}=3$.

1. Press the $\Theta$ key twice.


ABC
2. Set the parameters $A$ to $C$.

| 001 | 117 |
| :--- | :--- |
| 001 | 113 |

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

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


| 001 | 113 |
| :--- | :--- |

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


## Print



5 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


Sign (+/-) (\%) PGM 2

## Procedure



* Item:

Selection:
Entry:
A $\quad$ Sign (plus/minus) Plus (pran

0

| Plus (premium) | 0 |
| :--- | :--- |
| Minus (discount) | 1 |

## Example

Programming minus sign for the \%1 key


6 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 Exi key



7 Programming for the $C A 2, \triangle R A, \triangle O,{ }^{C H}$ and $C R$ keys
$\square$ High amount lockout (HALO) (CA2, $\mathrm{BA}, \mathrm{PO}, \mathrm{CH}$ and CR) PGM2

## Procedure



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

A: Significant digit (1 through 9)
B: Number of zeros to follow the significant digit (0 through 8)

## Example

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


8 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

$$
\text { -Tax rate }=0.0001 \text { to } 100.0000
$$

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 $\otimes$ key in programming a tax rate, cancel it with the CL key; and if you make an error after pressing the second $\otimes$ 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.

| P | 0.00 |
| :--- | :--- |

2. Enter the tax rate " 2 ".
$2 \otimes$

| $P$ | 0.00 |
| :--- | :--- |

3. Enter the tax rate " $+4 \%$."
$4 \otimes$

| P | 0.00 |
| :--- | :--- |

4. Enter the lowest taxable amount "12." 12

| P | 12 |
| :--- | :--- |

5. Press the TL key to finalize the programming TL $\qquad$ and generate a programming report.

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.


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 2610 Direct

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

## Procedure



## Example

Key operation


## Setting the time PGM 2 2611 Direct

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

## Procedure



Key operation


Print


## 2 Setting the register and consecutive numbers

## ■ Setting the register number PGM 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


Print


## Setting the consecutive number

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

## Procedure



Print


## 3 Programming the tax rate

- The 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
$L_{\text {Tax rate }}=0.0001$ to 100.0000
nn $\%=1 / 0$

## Example

Key operation


Print


- 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 $\otimes$ key in programming a tax rate, cancel it with the CL key; and if you make an error after pressing the third $\otimes$ 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 22110

You can set each department for:

## Compulsory item validation print

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



| * |  | Selection: | Entry: |
| :--- | :--- | :--- | :--- |
| $\mathbf{A}$ | Always enter 0. |  | 0 |
| $\mathbf{B}$ | Item validation print | Compulsory | 1 |
|  |  | Non-compulsory | 0 |
| $\mathbf{C}$ and D | Always enter 0. |  | 0 |
| $\mathbf{E}$ | SIF/SICS /Normal | SIF | 2 |
|  |  | SICS | 1 |
| F | Always enter 0. |  | 0 |
| G | Type of unit price entry | Open and preset | 0 |
|  |  | Preset only | 3 |
|  |  | Open only | 2 |
|  |  | Inhibit department key | 1 |



## - 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

To program for the dept. other than the following dept.


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: $B C D E F G=100100,110100,111010$

Key operation


Print


## ■ A limit amount (HALO) of entry

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



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

A: Significant digit (1 through 9)
B: Number of zeros to follow significant digit (0 through 7)

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

## Example

Key operation


Print


## Alphanumeric characters PGM 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


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


Print


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


Print

|  |  |  |
| :---: | :---: | :---: |
| 001 | 10.00 |  |
| STEAK | 001 |  |
| 0000003 | C1L95 |  |
| D05 | 0.00 | Commission group number |
| DT, Dig | 601 |  |
| 000001 | QLi7 |  |

## Group number PGM 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

 your dealer.

Key operation


Print


## Department key positioning PGM 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.
${ }^{\star 2} A B$ is a department code.

## Example

Key operation


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 PLUSUB 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
- Item validation print compulsory/non-compulsory


## 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 PLUSUB 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 PLUSUB 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

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

## 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


Print


For a range of PLUs

Key operation


Print


## Procedure



## Base quantity PGM 1 PGM 21211

## Procedure



## Example

Key operation


Print

| H1211 XFGMEx |  |
| :---: | :---: |
| Fooune ${ }^{\text {a }}$ | 12 |
|  | 0.00 |
| FW0002 | ¢ |
| D0e |  |

## PLU/subdepartment mode

## 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 |
| :--- | :--- | :--- |
| $\mathbf{C}$ | Mode parameter | Prohibit mode |

## Example

## For each PLU

Key operation

| 2210 | $\bullet$ | $\otimes$ |
| :--- | :--- | :--- |
| $1 \otimes 003$ | $\boxed{\mathrm{ST}}$ |  |
|  |  |  |
| TL |  |  |

Print


For a range of PLUs

Key operation

| $2231 \quad \cdot$ |
| ---: |
| $11 \otimes 20 \otimes$ |
| 003 |
| ST |
|  |
|  |

Print


## 

## Procedure

## For each PLU



## For a range of PLUs


*1,2,3: 1 through 999999

| 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: $B C D E F G=100100,110100,111010$
- 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 |  |
| :---: | :---: |
| 2211 | $\otimes$ |
| 2 ® 0000001 | ST |
| 0000000 | ST |
|  | TL |

Print


For a range of PLUs

Key operation $\begin{array}{lll}2232 & \bullet & \otimes \\ 11 & \otimes & 20 \\ 0000001 & \otimes \\ & & \mathrm{ST} \\ & & \end{array}$

Print


## - Alphanumeric characters PGM 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


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

## Procedure

## For each PLU



## For a range of PLUs



The current setting
is displayed. To apply the current setting of start

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

## Example

## For each PLU

Key operation

$\qquad$

| H2TE MFGME |  |
| :---: | :---: |
| F00001402 | 100 |
| T1 | 1.25 |
| HTES | Cl |
| 003 |  |

For a range of PLUs

Key operation


Print


## Procedure



Note - PLU codes must have already been defined.

## Example

Key operation


Print


## Direct PLU key positioning PGM 22219

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



To program for the key number other than the following key number

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


## Example

Key operation


Print


## 6 Programming for miscellaneous keys

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

■ Programming the rate ( $\%$, Ex, commission) and the deduction ( $\Theta$ ) PGM 1
PGM 21310 Direct
You can program percent rates, currency exchange rates, deduction amounts and commission rates.

## Procedure


*1: Function no.

| 1: For the $\Theta$ | key | 8: For the | key | 74: For the commission sale 4 |
| :---: | :---: | :---: | :---: | :---: |
| 2: For the $\Theta_{2}$ | key | 52: For the Ex | key | 75: For the commission sale 5 |
| 3: For the $\ominus^{3}$ | key | 53: For the Ex | key | 76: For the commission sale 6 |
| 4: For the $\Theta 4$ | key | 54: For the Ex | key | 77: For the commission sale 7 |
| 5: For the \%1 | key | 71: For the co | mmission sale 1 | 78: For the commission sale 8 |
| 6: For the $\% 2$ | key | 72: For the com | mmission sale 2 | 79: For the commission sale 9 |
| 7: For the \%3 | key | 73: For the co | mission 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)

## Example

Key operation


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

- A limit amount (HALO) of entry ( $\Theta, \pi,(\mathbb{R A}$ ) $\operatorname{PG}$ PG 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 $\Theta$ key 37: For the RA key
2: For the $\Theta 2$ key 38: For the BA2 key
3: For the $\Theta 3$ key 39: For the $P 0$ key
4: For the ©4 key 40: For the Po2 key
*2: AB is the same as $A \times 10^{B}$.
A: Significant digit (0 through 9)
B: Number of zeros to follow significant digit
0 through 7 (for the $\Theta$ through $\Theta 4$ keys)
0 through 8 (for the RA, RA 2 , PO , and PO keys)
For example, presetting 13 (10.00) here means that amount entries of up to 10.00 are allowed in the REG mode.
You can set up $A B=17$ for no limitation (for the $\Theta$ through $\Theta 4$ keys).
You can set up $A B=18$ for no limitation (for the RA, $\mathrm{RA2}$, (PO), and PO2 keys).

## Example

Key operation


Print


- +/- sign (\%, $\Theta$ ) PGM 2 2311 Direct

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

## Procedure


*1: Function no.

| 1: For the $\Theta$ key | 5: For the $\% 1$ key |
| :--- | :--- |
| 2: For the $\Theta 2$ key | 6: For the $\% 2$ key |
| 3: For the $\Theta 3$ key | 7: For the \%3 key |

*2:

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

## Example

Key operation


Print


# Item \% or subtotal \% selection 

Item \%
Select this when a percent calculation is desired for the individual department and PLU.
Subtotal \%
Select this when a percent calculation is desired for subtotals.

## Procedure


*1: Function no.
5: For the \%1 key
6: For the \%2 key
7: For the \%3 key
8: For the \%4 key
*2: A
0: Subtotal \%
1: Item \%

## Example

Key operation
$2315 \bullet \otimes$
$5 \otimes 1 \otimes S T$
$6 \otimes 0 \triangle \mathrm{ST}$


## Percent rate limitation (\%) PGM 22313

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.)

Key operation


Print


## Item $\Theta$ or subtotal $\Theta$ selection ( $\Theta$ ) $\operatorname{PGM} 2 \quad 2316$

Item $\Theta$
Select this when a deduction calculation is desired for the individual department and PLU.
Subtotal $\Theta$
Select this when a deduction calculation is desired for subtotals.

## Procedure


*1: Function no.
1: For the $\Theta$ key
2: For the $\Theta 2$ key
3: For the $\Theta_{3}$ key
4: For the $\Theta 4$ key
*2: A
0 : Subtotal $\Theta$ 1: Item $\Theta$

## Example

Key operation


Print


## 7 Programming for the $\mathrm{TL}, \mathrm{CA}_{2}$, CH 1 through CH 4 , and $\mathrm{CR1} 1$ through $\mathrm{CR4} 4$ keys

## ■ Functional programming PGM 2320

You can set each media for:

## EFT Transaction

For CH 1 through CH 4 keys, and CR 1 through $\mathrm{CR4}$ keys

## Footer printing

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

## Non-add code compulsory

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

## Change enable (over-tender)

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

## Compulsory validation print

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

## Drawer open

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

## Amount tendered compulsory

You may select amount tendered compulsory or optional for the TL), CA 2 and $\mathrm{CH}_{1}$ through CH 4 keys.
You may select amount tendered compulsory or inhibited for the CR1 through CR4 keys.

## 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 $\mathrm{CH}^{\mathrm{CH}}$ key
47: For the CH4 key
48: For the CR1 key
49: For the CR2 key

| Item: |  | Selection: | Entry: |
| :---: | :---: | :---: | :---: |
| A | EFT transaction | Compulsory | 1 |
|  |  | Non-compulsory | 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 | Validation print | Compulsory | 1 |
|  |  | Non-compulsory | 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 |

Key operation

$50 \triangle$| 2320 | $\bullet$ |
| :--- | :--- |
|  | $\boxed{\otimes}$ |

Print


## High amount lockout (HALO) for cheque change, cheque cashing, and cash in drawer PGM 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
62: For cheque change
59: 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


Print

H2 MFGMEx
F04i. CA/CH


## ■ 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 CH 3 key
47: For the CH 4 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 $A \times 10^{8}$.
A: Significant digit (1 through 9)
B: Number of zeros to follow significant digit (0 through 8)

You can set up $A B=18$ for no limitation.

## Example

Key operation

| 2322 | $\bullet$ | $\otimes$ |
| :--- | :--- | :--- |
| $50 \otimes$ | $\boxed{S T}$ |  |
|  |  |  |
|  |  |  |
| TL |  |  |

Print


FDGO CEDITS


## 8 Programming of function text

## ■ Programming PGM 22314

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


Print

```
4344 :FGMZ%
```

F 040 VISA

- List of function texts

| Function no. | Key or function | Default setting | Function no. | Key or function | Default setting |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\ominus 1$ | (-)1 | 48 | Credit 1 | CREDIT1 |
| 2 | $\bigcirc 2$ | (-)2 | 49 | Credit 2 | CREDIT2 |
| 3 | $\Theta 3$ | (-)3 | 50 | Credit 3 | CREDIT3 |
| 4 | $\bigcirc 4$ | (-)4 | 51 | Credit 4 | CREDIT4 |
| 5 | \%1 | \%1 | 52 | Exchange 1 | EXCH1 |
| 6 | \%2 | \%2 | 53 | Exchange 2 | EXCH2 |
| 7 | \%3 | \%3 | 54 | Exchange 3 | EXCH3 |
| 8 | \%4 | \%4 | 55 | Exchange 4 | EXCH4 |
| 9 | Differ | DIFFER | 56 | Exchange 1 is | EXCH1 IS |
| 10 | Taxable 1 subtotal | TAX1 ST | 57 | Exchange 2 is | EXCH2 IS |
| 11 | Taxable 2 subtotal | TAX2 ST | 58 | Exchange 3 is | EXCH3 IS |
| 12 | Taxable 3 subtotal | TAX3 ST | 59 | Cash in drawer | **** CID |
| 13 | Taxable 4 subtotal | TAX4 ST | 60 | Cash/cheque is | CA/CH IS |
| 14 | Taxable 5 subtotal | TAX5 ST | 61 | Cash/cheque in drawer | CA/CH ID |
| 15 | Taxable 6 subtotal | TAX6 ST | 62 | Change for cheque | CHK/CG |
| 16 | VAT/tax 1 | VAT 1 | 63 | Customer | GUEST |
| 17 | VAT/tax 2 | VAT 2 | 64 | Order total | ORDER TL |
| 18 | VAT/tax 3 | VAT 3 | 65 | Paid total | PAID TL |
| 19 | VAT/tax 4 | VAT 4 | 66 | Domestic currency 1 | DOM.CUR1 |
| 20 | VAT/tax 5 | VAT 5 | 67 | Domestic currency 2 | DOM.CUR2 |
| 21 | VAT/tax 6 | VAT 6 | 68 | Domestic currency 3 | DOM.CUR3 |
| 22 | Net 1 | NET1 | 69 | Domestic currency 4 | DOM.CUR4 |
| 23 | Net 2 | NET2 | 70 | Cheque in drawer | *CH ID |
| 24 | Coupon-like PLU | CP PLU | 71 | Commission sale 1 | COM.SAL1 |
| 25 | Refund | REFUND | 72 | Commission sale 2 | COM.SAL2 |
| 26 | $\infty$ | $\infty$ | 73 | Commission sale 3 | COM.SAL3 |
| 27 | $\infty$ mode total | csMODE | 74 | Commission sale 4 | COM.SAL4 |
| 28 | MGR $¢$ | MGRcs | 75 | Commission sale 5 | COM.SAL5 |
| 29 | Subtotal $<$ | SBTL¢ | 76 | Commission sale 6 | COM.SAL6 |
| 30 | Hash $<\infty$ | HASHCs | 77 | Commission sale 7 | COM.SAL7 |
| 31 | Hash refund | HASH RF | 78 | Commission sale 8 | COM.SAL8 |
| 32 | VAT shift | VAT SFT | 79 | Commission sale 9 | COM.SAL9 |
| 33 | VAT/tax delete | TAX DELE | 80 | Non commission sale | NON.COM |
| 34 | VP counter | VP CNT | 81 | (+) Dept total | *DEPT TL |
| 35 | No sale | NO SALE | 82 | (-) Dept total | DEPT (-) |
| 36 | Guest check counter | G.C. CNT | 83 | Hash (+) total | *HASH TL |
| 37 | RA | ***RA | 84 | Hash (-) total | HASH (-) |
| 38 | RA2 | ***RA2 | 85 | Bottle return (+) total | *BTTL TL |
| 39 | PO | ***PO | 86 | Bottle return (-) total | BTTL (-) |
| 40 | PO2 | ***PO2 | 87 | Net 1 (Taxable 1 - VAT/tax 1) | NET 1 |
| 41 | Cheque cashing | CA/CHK | 88 | Net 2 (Taxable 2 - VAT/tax 2) | NET 2 |
| 42 | Cash | CASH | 89 | Net 3 (Taxable 3 - VAT/tax 3) | NET 3 |
| 43 | Cash 2 | CASH2 | 90 | Net 4 (Taxable 4 - VAT/tax 4) | NET 4 |
| 44 | Cheque 1 | CHECK | 91 | Net 5 (Taxable 5-VAT/tax 5) | NET 5 |
| 45 | Cheque 2 | CHECK2 | 92 | Net 6 (Taxable 6 - VAT/tax 6) | NET 6 |
| 46 | Cheque 3 | CHECK3 | 93 | Subtotal | SUBTOTAL |
| 47 | Cheque 4 | CHECK4 | 94 | Merchandise subtotal | MDSE ST |


| Function <br> no. | Key or function | Default <br> setting |
| :---: | :--- | :--- |
| 95 | Difference subtotal | DIFF ST |
| 96 | Total | *** TOTAL |
| 97 | Change | CHANGE |
| 98 | Sales q'ty | ITEMS |
| 99 | PLU subtotal | COPY |
| 100 | Copy receipt title | G.C COPY |
| 101 | Guest check copy title | AVE. |
| 102 | Average | GROUP01 |
| 103 | Group 1 for departments | GROUP02 |
| 104 | Group 2 for departments | GROUP03 |
| 105 | Group 3 for departments | GROUP04 |
| 106 | Group 4 for departments | GROUP05 |
| 107 | Group 5 for departments | GROUP06 |
| 108 | Group 6 for departments | GROUP07 |
| 109 | Group 7 for departments | GROUP08 |
| 110 | Group 8 for departments | GROUP09 |
| 111 | Group 9 for departments | CCD |
| 112 | CCD | CCD DIF. |
| 113 | CCD differ | DIF. TL |
| 114 | CCD differ total | O - P |
| 115 | Order total-Paid total | NET |
| 116 | Total tax |  |
| 117 | Net without tax |  |


| Function <br> no. | Key or function | Default <br> setting |
| :---: | :--- | :--- |
| 118 | Commission amount 1 | COM.AMT1 |
| 119 | Commission amount 2 | COM.AMT2 |
| 120 | Commission amount 3 | COM.AMT3 |
| 121 | Commission amount 4 | COM.AMT4 |
| 122 | Commission amount 5 | COM.AMT5 |
| 123 | Commission amount 6 | COM.AMT6 |
| 124 | Commission amount 7 | COM.AMT7 |
| 125 | Commission amount 8 | COM.AMT8 |
| 126 | Commission amount 9 | COM.AMT9 |
| 127 | Commission amount total | COM.TTL |
| 128 | Department report title | DEPT |
| 129 | Group report title | GROUP |
| 130 | PLU report title | PLU |
| 131 | Transaction report title | TRANS. |
| 132 | Total in drawer report title | TL-ID |
| 133 | Clerk report title | CLERK |
| 134 | Cashier report title | CASHIER |
| 136 | Hourly report title | HOURLY |
| 137 | Daily net report title | DAILY |
| 138 | PLU zero sales report title | ZERO SAL |
| 139 | PLU price category report title | CATEGORY |
| 140 | Commission sales report title | SALES |
|  |  |  |

## 9 Cashier and clerk programming

## - Cashier code PGM 1 PGM 21500

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


Print


Cashier name PGM 1 PGM 21514
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


Print

```
#15.4 和GH2*
OLCSK 11
MFMEE
000001
```


## Functional programming for cashiers PGM 2.2510

## Procedure


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


## Example

Key operation


Print


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


Print


## Clerk name PGM 1 PGM 21414

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


Print

## 

01CLK NTE
11

## 10 Programming various functions

## - Programming for optional feature selection

PGM 2
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 $X 1 / Z 1$ 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
Refund validation printing
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).
Item validation print
Validation print for $\Theta$ entry
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
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.
Credit counting when received-on-account/paid out finalized with the credit key
Separator line in the report
Link PLU printing on the receipt


## Procedure



**P: 4

| Item: | Selection: | Entry: |  |
| :--- | :--- | :--- | :--- |
| $\mathbf{A}$ and $\mathbf{B}$ | Always enter 0. |  | 0 |
| $\mathbf{C}$ | VAT/tax amount printing on the | Yes | 0 |
|  | receipt/journal | No | 1 |
| $\mathbf{D}$ | 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 $\mathbf{C}$ | Always enter 0. | 0 |  |
| $\mathbf{D}$ | 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: |  |
| :--- | :--- | :--- | :--- |
| $\mathbf{A}$ and B | Always enter 0. | 0 |  |
| $\mathbf{C}$ | No sale in REG-mode | Enable | 0 |
|  |  | Disable | 1 |
| $\mathbf{D}$ | Finalization in the REG-mode | Enable | 0 |
|  | when the subtotal amount is zero | Disable | 1 |
| $\mathbf{E}$ to H | Always enter 0. |  | 0 |

**P: 8 (ABCDEFGH: Always enter 0.)
**P: 9

| Item: | Selection: | Entry: |  |
| :--- | :--- | :--- | :---: |
| $\mathbf{A}$ to $\mathbf{C}$ | Always enter 0. | 0 |  |
| $\mathbf{D}$ | Printing exchange 1 total amount and change | No | 0 |
|  | amount on receipt and journal | Yes | 1 |
| E to $\mathbf{H}$ | Always enter 0. |  | 0 |

**P: 10 to 12 (ABCDEFGH: Always enter 0.)
**P: 13

| Item: |  | Selection: | Entry: |
| :--- | :--- | :--- | :--- |
| A | Credit counting when received-on-account/paid <br> out is finalized with the credit key | Yes | 1 |
|  | Separator line in the report | No | 1 |
| $\mathbf{B}$ | Separator line | 0 |  |
| $\mathbf{C}$ | Way to print the information for the link PLU on <br> the receipt | Leading link PLU with total amount | 1 |
|  | Each PLU | 0 |  |
| $\mathbf{D}$ to $\mathbf{H}$ | Always enter 0. |  | 0 |



Programming the limit on the number of times of validation printing and feed line after printing of a difference subtotal PGM2 2615

## Procedure



* A: Validation printing counter (1 through 9 times)

To inhibit validation printing, enter 0.
B: Feed lines after printing of difference subtotal (0 through 9)

## Example

Key operation
Print


## Programming alarm length of time with drawer opening

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

## Procedure



## Example



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 Vp and RCPT keys) is pressed for the next transaction. It restarts the time monitoring after that transaction is ended. You can stop the buzzer alarm by closing the drawer. No key entries can be made while the buzzer is sounding.

## - Programming of print messages <br> PGM 2 <br> 2614

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

## Procedure



* "Header 3-line message" type: 1 to 3
"Footer 3-line message" type : 4 to 6
"Header 6-line message" type: 1 to 6
"Header 3-line and footer 3-line message" type: 1 to 6 ( 1 to 3 as header, 4 to 6 as footer)
A maximum of 6 lines are available. The type of printing "header 3 -line message" is available for the standard model. The line numbers you select are according to the four types of printing: default setting, "header 3 -line message" type, "footer 3-line message" type, "header 6-line message" type and "header 3-line and footer 3-line message" type. If you want to change the type of printing, please consult your dealer.
Select the characters you want to program, referring to section " 2 how to program alphanumeric characters" in chapter "PRIOR TO PROGRAMMING."


## Example

To program the following logo messages by using 3 lines:
=== YOUR ===
== STORE =
MESSSAGE

Key operation
$2614 \bullet \otimes$

(DC) Y (IDC) O (DC) $\cup$ (IDC) R


(DC) $S$ (DC) $T$ (DC) $O$ (DC) $R$ (DC) $E$ (SPAOE (SHFF2) $=($ SHHFR2) $=S T$

(ICC) $M$ (IDC) $E$ (IDC) $S$ (IDC) $S$ (IDC) $A$ (IDC) $G$ (IDC) $E x$
$T L$
(SPRe大⿹: : Space key)

Print

$==$ armify $=$
$=5$ TLIEE $=$
MESSAGE

## - Selection of X1/Z1 and X2/Z2 reports

 to be printed in the stacked report sequenceYour 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 13 reports*. This function continuously prints a maximum of 13 kinds of reports with a single operation.

## Procedure



To cancel the stacked report sequence

*: 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 |  |  |
| 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 | Rourly sales information | Range report is available <br> only in the X1 mode. |
| 60 | *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 <br> When $Z$ of stacked report is initiated, $X$ only reports will be skipped.

## Example

Key operation


Print
$4260 \times 5 \mathrm{~B}+4=0$

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

## 4219 YFGME:

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

## ■ RS-232C channel assignment PGM 2690

Your machine is equipped with an RS-232C interface. If you use the on-line communication function, the channel number of the RS-232C interface must be programmed by using the following procedure.
To realize the on-line communication, consult your dealer.

## Procedure



| $*$ *: 1 |  | Selection: | Entry: |
| :--- | :--- | :--- | :---: |
| **  0 <br> A For the ON-LINE communication Disable |  |  |  |
| B to D | Always enter 0. | Enable (enter the channel number) | 8 |

*P: 2 and 3 (ABCD: Not used. Always enter 0.)

## Example

Key operation


Print


## Secret codes to control access to PGM1 mode, X1/Z1 mode and X2/Z2 mode PGM 263026312632

You must enter a secret code according to the following procedure before performing any PGM1-mode, X1/Z1mode or X2/Z2-mode operation when a secret code has been set for that specific mode operation.

## Operating

## Procedure



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

## Programming

## Procedure



* 2630 for the PGM1 mode

2631 for the X1/Z1 mode
2632 for the X2/Z2 mode

## Example

Key operation
$2631 \bullet \otimes$
1234 TL

Print

```
```

4261:MFGME*

```
```

```
```

4261:MFGME*

```
```


## ■ Currency description text programming

You can program a maximum of 4 characters for each of the Ex1 through Ex4 keys.

## Procedure


*Function no.:
52: For the Ex1 key
53: For the Ex2 key
54: For the Ex3 key
55: For the EX4 key

Key operation


Print

FDE EMHL OH
0.000000

## Assigning the drawer number to the drawer for foreign currency PGM 2

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
$2680 \otimes \begin{array}{r}\bullet \\ 2\end{array}$

Print


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

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 $\mathrm{X} 2 / \mathrm{Z} 2$ mode.

## Procedure



## Example Programming for $\underset{1}{\text { AuTO }}$ key and $\begin{gathered}\text { AuTO } \\ 2\end{gathered}$ key as follows:

AuTo; entering a PLU 2 item (programmed unit price: 1.50) and a dept. 6 item (unit price: 1.00)
AuTO); selling a dept. 7 item (programmed unit price: 5.00 ) for cash


When the AUTO key has been programmed to execute a report job function etc., the mode switch must be in the appropriate position ( $X 1 / Z 1$ or $X 2 / Z 2$ ).

## 11 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 |  | $\begin{aligned} & 1110,2110, \\ & 2111,2112, \\ & 2114,2115, \\ & 2116 \end{aligned}$ |
| 2 | PLUs/ subdepartments | $\begin{aligned} & \text { PGM2 or } \\ & \text { PGM1 } \end{aligned}$ | 1200 |  | $\begin{aligned} & 1200,1210, \\ & 1211,2210, \\ & 2211,2214, \\ & 2215,2230, \\ & 2231,2232, \\ & 2235 \end{aligned}$ |
| 3 | Key nos. for departments and PLUs | PGM2 | 2119 | $\longrightarrow 2119 \longrightarrow \otimes \mathrm{TL}$ | 2119, 2219 |
| 4 | Link PLUs | PGM2 | 2220 |  | 2220 |
| 5 | Cashiers | PGM2 or PGM1 | 1500 |  | $\begin{aligned} & 1500,1514, \\ & 2510 \end{aligned}$ |
| 6 | Clerks | PGM2 or PGM1 | 1400 | $\longrightarrow 1400 \longrightarrow \otimes \rightarrow \mathrm{TL}$ | 1400, 1414 |
| 7 | Function preset 1 | PGM2 or PGM1 | 1300 | $\longrightarrow 1300 \longrightarrow \otimes$ TL | $\begin{aligned} & 1310,2311, \\ & 2312,2313, \\ & 2314,2315, \\ & 2316,2320, \\ & 2321,2322, \\ & 2334 \end{aligned}$ |
| 8 | Function preset 2 | PGM2 | 2600 | $\longrightarrow 2600 \longrightarrow \otimes \longrightarrow \mathrm{TL}$ | $\begin{aligned} & \text { 2614, 2615, } \\ & \text { 2616, 2617, } \\ & \text { 2619, 2620, } \\ & \text { 2630, 2631, } \\ & \text { 2632, 2680, } \\ & 2690 \end{aligned}$ |
| 9 | Tax rates | PGM2 | 2700 | $\longrightarrow 2700 \longrightarrow \otimes$ TL | 2711 |
| 10 | Auto keys | PGM2 | 2900 | $\longrightarrow 2900 \longrightarrow \otimes \mathrm{TL}$ | 2900 |

## - 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 cashiers (Reading in the PGM1 and PGM2 modes)


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


[^1]7 Reading of programmed items for functions - 1
(Reading in the PGM1 and PGM2 modes)


FOBO WH COM.
Fobe FoET TL
Fobe veple
FOES XTTL TL
FOQ6 ETTL(-)
Fob7 NET 1
FGec HET 2
Fge9 WET 3
FOVO MET 4
FDP HET 5
FOD NET 6
Fogs Suetatal
FOP4 MDEE $9 T$
FDF DIF ST
F076 \%MTITAL
Fof Change
FO9C ITEM
FOg PU ST
F100 CaF: ${ }^{8}$
F101 G.E CIF
F102 AUS.
Flos gempol
F104 GRIUFO
F105 GRDUFO3
F106 EROUFO4
F107 GRDNG
F10e GRTuFU6
F109 GROMFT
F110 GRUPD
F11 GmuFg
F115 [- ${ }^{=}$
F116 TTL TAK
F117 HET
F 118 CIM.AMTL
F117 Camante
FLD COM AMTS

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

| 31/06/98 7:55 11 |  |  |
| :---: | :---: | :---: |
| 123456 41455 | mayer |  |
| 11 WILS |  |  |
| W600 $\times \mathrm{FBmax}$ |  |  |
| W2614 |  | -Print message |
| $==$ FRLIE $=$ |  |  |
| $=5$ TLIEE $=$ |  |  |
| WESSMLE |  |  |
| \#2615 | 10 |  |
| 4266 |  | - Line feed for differ ST |
| 01 | 0000000 |  |
| 0 | 0000000 |  |
| 0 | 00000010 |  |
| 04 | 0000000 |  |
| 05 | 00000000 |  |
| 06 | 0000000 |  |
| 07 | 00000000 | Optional feature selection |
| 00 | 0000000 |  |
| 09 | 00000000 |  |
| 10 | 00000000 |  |
| 11 | 00000000 |  |
| 12 | 000000 |  |
| 13 | 0000000 |  |
| 426.7 | 030 | Drawer open alarm time |
| \#2619 | 000 | -Hourly report format/start |
| H220 |  |  |
|  | 10 | Stacked report |
|  | 13 |  |
| \#260 | 0000 |  |
| \#231 | 123 | Secret code |
| 4262 | 0000 |  |
| W260 |  | - Drawer no. for the drawer |
| 4260 |  | for foreign currency |
| 1 | 0000 | -RS-232C channel data |
| 2 | 0000 |  |
| 3 | 000 |  |

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


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


## 12 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
10005
$3 \otimes$
T

Print

| 31/06/76 14:47 0. |  |
| :---: | :---: |
| 12356 1150 | TIM |
| 12 EETH |  |
| TEMTMITHC |  |
| DTM | * 10.00 |
| 3)24.00 |  |
| DT, ${ }^{\text {dus }}$ | \%2.00 |
| CABH SEn | - 01 |

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

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


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

X1 and Z1 reports: Daily sales reports
X 2 and Z 2 reports: Periodic (monthly) consolidation reports

| Item | Mode switch position |  | Job <br> 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 ) : Department total amount |
|  |  |  |  | $\otimes$ key: Amount of cash in drawer |
|  |  |  |  | ST key: Sales total |
| Full reading and resetting | X1, Z1 | X1, Z1 | 100 |  |
|  |  | X2, Z2 | 200 |  |
| Individual clerk reading and resetting | X1, Z1 | X1, Z1 | 141 |  |
|  |  | X2, Z2 | 241 |  |
|  | <OP X/Z> X, Z |  | 41 |  |
| Individual cashier reading and resetting | X1, Z1 | X1, Z1 | 151 |  |
|  |  | X2, z2 | 251 |  |
|  | <OP X/Z> X, Z |  | 51 |  |
| Full clerk reading and resetting | X1, Z1 | X1, Z1 | 140 | ${ }_{240}^{140} \underset{\text { Resetting }}{\stackrel{\text { Reading }}{\bullet} \rightarrow \otimes} \rightarrow \longrightarrow$ |
|  |  | X2, z2 | 240 |  |
| Full cashier reading and resetting | X1, Z1 | X1, Z1 | 150 |  |
|  |  | X2, Z2 | 250 |  |
| Full department reading | X1 | X1 | 110 | $\begin{aligned} & 110 \\ & 210 \end{aligned} \otimes \mathrm{TL}$ |
|  |  | X2 | 210 |  |
| Individual group reading | X1 | X 1 X 2 X 1 | 112 212 | $\begin{aligned} & 112 \\ & 212 \end{aligned} \otimes \text { Group no. } \longrightarrow \mathrm{TL}$ |
| Full group reading | X1 | X1 | 113 | $\begin{aligned} & 113 \\ & 213 \end{aligned} \rightarrow \otimes \longrightarrow \mathrm{TL}$ |
|  |  | X2 | 213 |  |


| Item | Mode switch position |  | Job code | Key operation |
| :---: | :---: | :---: | :---: | :---: |
|  | X1/Z1 | X2/Z2 |  |  |
| Commission sales report | X1 | X1 | 132 | $\begin{aligned} & 132 \\ & 232 \end{aligned} \otimes \otimes T$ |
|  |  | X2 | 232 |  |
| 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 | $\begin{aligned} & 127 \\ & 227 \end{aligned} \otimes \otimes \mathrm{TL}$ |
|  |  | X2 | 227 |  |
| Reading of sales information for the price amount range of PLUs/sub department | X1 | X1 | 129 |  |
|  |  | X2 | 229 |  |
| Transaction reading | X1 | X1 | 130 |  |
|  |  | X2 | 230 |  |
| Total in drawer | X1 | X1 | 131 |  |
|  |  | X2 | 231 |  |
| Reading and resetting of hourly sales information | X1 |  | 160 | * Enter the time in the 24-hour system. |
|  | X1, Z 1 |  |  |  |
| Reading and resetting of a stacked report | X1, Z1 | X1, Z1 | 190 |  |
|  |  | X2, Z2 | 290 |  |
| Reading and resetting of the daily net totals |  | X2, Z2 | 270 |  |

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.

## 2 Automatic modification of register system for introduction of EURO

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 Z 2 mode.

## Procedure


*A=1: Applicable for the period of co-existence of EURO and national currency. (During the transition period)
*A $=2$ : Applicable for the time the national currency is withdrawn from circulation. (At the completion of transition period.)

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

- After the execution of the procedure above, EURO is treated as domestic currency, and National currency as foreign currency. Program the rate of national currency for EURO to the exchange 1(Ex1) key.

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. Resetting GT1, GT2 and GT3.
4. Setting "Yes" for a PGM function "Printing exchange 1 total amount and change amount on receipt and journal" (Job \#2616)
5. Changing the domestic currency symbol to EURO symbol.

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 and GT3.
4. Setting "No" for a PGM function "Printing exchange 1 total amount and change amount on receipt and journal" (Job \#2616)
5. Changing the domestic currency symbol to EURO symbol.

Note
When the operation with the substitution of " $A=1$ " has been performed already, only 1, 2, and 4 are executed.

## 3 Daily sales totals

## - Full reading and resetting of sales totals

You can take $X$ and $Z$ reports in the $\mathrm{X} 1 / \mathrm{Z} 1$ mode. The use of the decimal key $(\bullet)$ determines when the report will actually reset the sales totals.

- Sample X report



Note
Not all reports provide the resetting capability. Please refer to the chart on pages 73 and 74.


| UF CNT | 239 | - Validation print counter |
| :---: | :---: | :---: |
| HO SALE | 70 | -No-sale (exchange) counter |
| 6.C. ©NT | 20 | -Gest check copy counter |
| GUEST | 1530 | -Customer counter |
| DEDEE TL | W27641.85 | - Order total |
| FAID TL | X2758. 10 | - Paid total |
| MUE. | 4180.12 | - Paid total average per costomer |
| $\square \mathrm{F}$ | \%83.75 | -Order total - paid total |
| X $\times$ \% | $\begin{array}{r} 20 \\ 396.00 \end{array}$ | \}Received on account counter and total |
| MME | $\begin{array}{r} 20 \\ \times 60.00 \end{array}$ | \}Paid out counter and total |
| C/CHK | $\begin{array}{r} 10 \\ 40.90 \end{array}$ | \}Cheque cashing counter and total |
| EACH | $\begin{array}{r} 1420 \\ 4269521 \end{array}$ | \}Cash counter and total |
| CHEL | $\begin{array}{r} 60 \\ \times 1.25 \end{array}$ | \}Cheque 1 sales counter and total |
| CEDTT | $\begin{array}{r} 60 \\ \times 67.15 \end{array}$ | \}Credit 1 sale and tendering counter and total |
| CEDTE | $\begin{array}{r} 10 \\ \times 40.00 \end{array}$ |  |
| EXCH: | $\begin{gathered} 20 \\ 100.20 \end{gathered}$ | \} Exchange 1 counter and total |
| DTM.CUL | \$165.10 |  |
| EMH2 | $\begin{gathered} 20 \\ 900.00 \end{gathered}$ |  |
| DH\% CUE | W285.70 |  |
| E4CH | 0. 50 |  |
| DIm, OfS | 80.82 |  |
| ETCH4 | $\frac{10}{100.00}$ |  |
| DMm. $\mathrm{CuF}^{4}$ | $\times 164.76$ |  |
| Mercto | \$5443.46 | -Cash in drawer |
| MH TL | X27. | -Cheque in drawer |
| EA/CH TO | \%9570.71 | -Cash + cheque in drawer |
| $\mathrm{CH} / \mathrm{CO}$ | X28.75 | -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



## - 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

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

| 31/06/90 2441 11 |  |  |
| :---: | :---: | :---: |
| 123466 W1667 | mover |  |
| 11 HILS |  |  |
| \#141 x-1\% |  |  |
| \% CEER $\times$ |  | Clerk no./clerk code |
| 01CLIM 1 I | MLS | Clerk name |
| CWOEE TL | \%280.23 | - Order total |
| CNH.SAL 1 | \% 25.75 | - Commission sales |
| CHM SAL 2 | $\times 1116.71$ | 1 total amount |
| CIM. SLI 4 | $\times 74.23$ |  |
| DM.94. | \%5,41 |  |
| CIM. SCL | 24.85 |  |
|  | 81.00 |  |
| CIM. SAR | \% $\% 4.54$ |  |
| CTM. 94.9 | \%13.30 |  |
| WWH CIM. | $\times 10649.35$ | -Non-commission sales amount |

- Sample Z report

| 31/06/76 2 \% |  |
| :---: | :---: |
| 127456 \#1681 | HMEE |
| 11 HILS |  |
| W14 \% F [ X |  |
| \% CIEEK $x$ |  |

## 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.

[^2]
## - 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

| 31/08/98 21:57 | 11 |
| :---: | :---: |
| 12346 +1652 | HAUER |
| 12 EETH |  |
| H160 $\times 4.8$ |  |
| \% HILETY $\%$ |  |
| 7 OL | 00 |
|  | 40.00 |
| AEE ${ }_{7 \times 30}$ | $\times 0.00$ |
|  | 20 |
|  | \%64.50 |
| AVE: | $\times 2.25$ |
| SUTLTA. | $2 \square$ |
|  | $\times 64.30$ |
| 8:00 | 50 |
|  | X7e. 50 |
| $\mathrm{AVE}_{\text {8. }}$ | x14.50 |
|  | 38 |
|  | Y7\%. 15 |
| AVE | Y2. 38 |
| SUETUTAL | 80 |
|  | $\times 148.65$ |



Full department reading

| 31/06/78 20:56 | HMEE ${ }^{1.1}$ |  | Dre | 2.0000 |
| :---: | :---: | :---: | :---: | :---: |
| 1.23456 H162 |  |  | DPT. 2 | 31650 |
| 12 EETH |  |  | Dis | 4.0000 |
|  |  |  |  | DT1 15 | $-1.08$ |
| H110 x H |  |  | HASHC- | 6.0000 |
| YDEFTY |  |  |  | $15.42$ |
| DO1 | 126.5650 | Sales q'ty and total |  |  |
| Flomot. | 8688.51 |  | CHz | 7.0000 |
|  | $4.66 \%$ | Ratio of dept. 1 sales amount to ${ }^{+}+$ | DPT, ${ }^{\text {He }}$ | -60.00 |
| DD4 <br> DFT.CM4 | 17.0000 | ${ }_{\text {a }}^{\text {amept. total }}{ }^{+}$ | WTTL TL. | 7.0000 |
|  | 8670.45 |  |  | $-60.00$ |
|  | 4.90\% |  |  |  |
| पロ5: | 61.0000 |  | Der4 | 7.0000 |
| DPT.05 | 81314.11 |  | DFT. 14 | $\times 505.26$ |
|  | 82.66\% |  | ETIL - - | $7 \times 1000$ |
|  |  |  |  | 905.26 |
| $\begin{aligned} & \text { DOT } \\ & \text { DT.DY } \end{aligned}$ | 28.5000 |  |  |  |
|  | \%83. 80 |  |  |  |
|  | 0.61\% |  |  |  |
| grauma | 3770630 |  |  |  |
|  | 813687.81 |  |  |  |
|  | 52.8\% |  |  |  |
| Duz | 37.0008 |  |  |  |
| DFT, Ca | $\times 10930.25$ |  |  |  |
|  | 100.00\% |  |  |  |
| Erupe | 357.000 0 |  |  |  |
|  | 71090.25 |  |  |  |
|  | $42.18 \%$ |  |  |  |
| FEET TL | 757.0630 |  |  |  |
|  | Y2515.09 |  |  |  |
|  | 100.00\% |  |  |  |
| Der | 36000 |  |  |  |
| DFT. 1 C | -3500 |  |  |  |
| DETC- | 3.1000 |  |  |  |
|  | -35.00 |  |  |  |
| EHI DTT. H H What Til | 30.0000 |  |  |  |
|  | *1.50 |  |  |  |
|  | 30.0008 |  |  |  |
|  | 81.50 |  |  |  |

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

- Reading of sales information on PLUs/subdepartments associated with an individual department
- Reading of sales information for the price amount range of PLUs/subdepartments


Commission sales information PLUs/subdepartments whose sales amounts are zeros

| 81/08/90 22:35 | It |  |
| :---: | :---: | :---: |
| 125456 H1663 | HAYER |  |
| 12 EETH |  |  |
| \#1\% |  |  |
| $\times$ SAES $x$ |  |  |
| OM. SAL | W139.15 | - Commission |
| CUM. SAL 2 | X1262.12 | sales 1 amount total |
| CHM.SAL 3 | $\times 187.00$ |  |
| CIM. 5 Li 4 | $\times 50.20$ |  |
| CIM. SAL | $\times 113.45$ |  |
| CTM. 5 AL 6 | 85,00 |  |
| Cam. 59 T | Y9.56 |  |
| Cm. 94.8 | Y7.85 |  |
| Cut. 5Al 9 | $\times 125.51$ |  |
| WTH Cmm. | M1328.11 | -Non-commission sales amount |
| - HE $^{\text {a }}$ | +26860.74 |  |

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

| 31/00/90 21:43 | Maver ${ }^{11}$ |  |
| :---: | :---: | :---: |
| 12345611643 |  |  |
| 12 EETH |  |  |
| H13 $\times 18$ |  |  |
| \% TL-T1 |  |  |
| ECHI |  | 20 | Exchange 1 counter |
|  | 100.20 | Currency |
| OLM, CH | 8165.10 | exchange 1 <br> total |
| EMCH | 20 | Domestic |
|  | 900.00 | currency for |
| DM.CRE | $\times 12850$ | ${ }_{\text {cer }}^{\text {currency }}$ exange 1 |
| EXCH | 10 | total |
|  | 0.50 |  |
| DOnsurs | \%0.82 |  |
| ECH4 | 10 |  |
|  | 100.00 |  |
| DIT CLR 4 | $\times 164.73$ |  |
| AEMCID | $\times 2419.56$ | Cash in drawer |
| 3CH ID | $\times 109.25$ | -Cheque in drawer |
| CA/CH DD | \%458.81 | Cash/Cheque in drawer |

## 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.

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

## 4 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 $\mathrm{X} 1 / \mathrm{Z} 1$ report for daily total except job code no. (\#2xx) and mode indication ("X2" or "Z2".)

- Sample X 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

| 7106/7e 2146 | -11 |
| :---: | :---: |
| 10456 W1094 | HPVET |
| 11 WTLS |  |
| \#770 M2\% |  |
| * DALY $\%$ |  |
| $0 \mathrm{D} / 0$. | 898 |
|  | S5E5.08 |
| De/0. | 920 |
|  | \$5世500 |
| De/0. | 10 C |
|  | W056.77 |
| 10\%/44 | 908 |
|  | W489, |
| We/0. | 848 |
|  | \% 5681.50 |
| 9/06 | 8.8 |
|  | \%01. 41 |
| 70/08 | 91.1 |
|  | 7487.25 |
| METTHL | 2476 |
|  | K5\% |

## ■ Reading and resetting of a stacked report

You can print multiple $\mathrm{X} 1 / \mathrm{Z} 1$ reports in sequence at a time. In this case, you need to program in advance what $\mathrm{X} 1 / \mathrm{Z} 1$ reports should be printed in the stacked report sequence.

The following job code numbers alone can be used for stacked report printing.
Job code number: 200, 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 $\mathbf{Z}$ 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 $T L$ 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 in the drawer
Ex1 to Ex3 :When inputting the amount of a foreign currency in the drawer



## 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 |  |
| :---: | :---: |
| DT. OL | $\times 15.00$ |
| c-1 | $-2.50$ |
| CAFH | 大耳 250 |

to the MGR position.
$250 \Theta$

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 $\omega$ 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 |  |
| :---: | :---: |
| 31/06/98 15:31 | 1 |
| 12456 \#1411 | maver |
| If HLLS |  |
| DFT.OE | 810.00 |
| DFT.OE | 81.50 |
| $\mathrm{CACH} \leqslant 1$ | 1.50 |



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

## 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 $\sqrt{B C T F}$ 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 " $\bar{\square}$ " on the display. Clear the error state by pressing the $C L$ key and take proper action.
Please refer to the error code table on page 124.

- 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 $C L$ key and press the (TL), (CA2), CH 1 through (CH4), or (CR1) through (CR4 key to finalize the transaction.


## ENTRIES

## 1 Item entries

## ■ Single item entries

## Procedure

## Department entries

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

When using a programmed unit price

*Less than the programmed upper limit amounts

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

## 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)

When using a programmed price


## Example

Key operation


Print

| DFTME | \$12.00 |
| :---: | :---: |
| DPTnOE | F5.00 |
| Ploovote | \%1.50 |
| Flomotil | 812.00 |
| PL00000 | $\times 3.50$ |
| CAB | 4 OH |

## ■ Repeat entries

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


Print

| DPT.LES | 2.00 |
| :---: | :---: |
| DFTME | $\pm .00$ |
| DFT.OE | \%2.00 |
| FL00010 | $\times 7.15$ |
| F.000010 | \%7.15 |
| FLowotu | \%7.15 |
| FL.0000S | \%. 85 |
| FL0000 1 | \%2.85 |
| F.00000 | $\times 5.00$ |
| F1.000060 | \%500 |
| CABH |  |

## 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



- 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 seven digits


## Example

Key operation

| Department entry | $7 \bullet 5 \otimes$ |
| :---: | :---: |
|  | 1658 |
|  | $15 \times$ |
| PLU entry | 13 PLUSUB |
| Direct PLU entry | $8 \cdot 25 \otimes$ |
|  | ${ }^{56}$ |
|  | $3 \otimes$ |
| Subdepartment entry | 100 AMT |
|  | 60 PLU/SUB |
|  | TL |

Print

| $7 \mathrm{~F} \times 1.65$ |  |
| :---: | :---: |
| DFT, प18 | x12.38 |
| $15 \times 2.10$ |  |
| FL000013 | 27.50 |
| 8.253 .00 |  |
| Pb00005 | 124.76 |
| 3< 1.00 |  |
| FL000060 | $\times 30$ |
| Can | - |

## ■ Successive multiplication entries

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

## Procedure



- Length or width: up to seven digits (4-digit integer + 3-digit decimal)
- Unit price: less than a programmed upper limit
- Length $\times$ Width $\times$ Unit price: up to seven digits (4-digit integer + 3-digit decimal)


## Note

 For actual use of this function, consult your dealer.
## Example

Key operation


Print


## ■ Split-pricing entries

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

## Procedure



- 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

| 7\% 10/6.00 |  |
| :---: | :---: |
| DET.DT | 74.20 |
| 2\% 5/3.00 |  |
| FLDOUS | \%4.00 |
| CASH | K\% 0 |

## ■ 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 or subdepartments.
- The transaction is finalized and the drawer opens as soon as you press the department key, PLUSUB key or the direct PLU key.


## Example

Key operation

| For finishing |
| :--- |
| the transaction |

250
Print


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

## SIF entries

- If an entry to a department or PLU/subdepartment set for SIF follows the ones to departments or PLUs/subdepartments 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
\(\underset{\substack{For finishing <br>

the transaction}}{\)| 1745 |
| :--- |
| 1500 |$}$

Print

| DFT.OE | $\times 17.45$ |
| :---: | :---: |
| DTT. ${ }^{\text {ar }}$ | 215.00 |
| CABH | \% 2 - 45 |

## Link PLU entries

Operation is the same as normal PLU's. The print of a link PLU entry on the receipt varies according to the PGM2 programming (\#2616).

## Printing detailed information

When a link PLU is entered, the linked PLUs total amount and text and their individual amounts are printed automatically.

## Example

Key operation


Print

| Foouel | \%.50 |  |
| :---: | :---: | :---: |
| FDoues | \% $0^{10}$ | Linked PLUs |
| Ploove | \%.00 | - |
| Plounet | \% 8.00 |  |
| CmGH | K1E50 |  |

## Printing leading link PLUs and total sales amount

When a link PLU is entered, only the leading link PLUs' text and the total sales amount (the sum of prices for PLU's which are included in the link PLU) are printed.

## Example

Key operation


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

## 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 " $\square$ " will light up in the display.

## Example

Key operation

| 100 | 9 |
| ---: | ---: |
| 100 | 2 |
| 700 | 3 |
|  | ST |
| TL |  |
|  |  |

Print

| DFT.OP | \%1.00 |
| :---: | :---: |
| DFT, 0 | \%1.00 |
| DPT.OE | \%7.00 |
| CmH | Y9 |

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 $\square$ 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 according to the programming (job \#2616).


## 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 CA 2 key if it is a cash tender or press one of the $\mathrm{CH1}$ through CH 4 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 " $L$ " will light up. Otherwise your register will show a deficit and the symbol " $\square$ " will light up. Make a correct tender entry.

## Example

Cash tendering


Print


Cheque tendering $\qquad$


Mixed tendering (cheque + cash)

## Example

Key operation


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

Enter items and press the TL or CA 2 key if it is a cash sale or press one of the CH 1 through CH 4 if it is a cheque sale. Your register will display the total sale amount.

## Example

Key operation
$\begin{array}{r}300 \text { (6) } \\ 10 \begin{array}{r}\text { PLUSUB } \\ \hline \mathrm{TL}\end{array} \\ \hline\end{array}$


## - Credit sale

Enter items and press the corresponding credit keys (CR11 through CR4).

## Example

| Key operation |  |
| :--- | :--- |
| 2500 | 6 |
| 3250 | 7 |
|  | CR1 |


| Print |  |
| :---: | :---: |
| DT.OE | \%25.00 |
| DFT.OT | \%3. 50 |
| CREDT | K57 50 |

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 <br> Key operation <br> 

Note
Press one of the $\widehat{\mathrm{CH} 11}$ 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



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


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

## Example

Key operation
(When the manual

| VAT $1-6$ system |
| :--- |
| is selected) |

Print


## ■ VAT shift entries

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

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

## Procedure

Press the $\underset{\substack{\text { vAlt } \\ \text { shlf }}}{ }$ to activate the VAT shift prior to entering department(s) or PLU(s) concerned.

## Example

Key operation
(When the manual VAT 1-6 system is selected.)


| Print |  |
| :---: | :---: |
| DFT.DU |  |

## 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

| $4 \times 1.40$ |  |
| :---: | :---: |
| DFTn $\square$ | Y5.60 |
| OFT. $\mathrm{DIF}^{\text {ar }}$ | 82.25 |
| DFT. Ca | $\times 2.25$ |
| SUETETAL | $\times 10.10$ |
|  | $-10.00 \%$ |
| \%in | $-1.01$ |
| EfSH | 大9 me |

## Percent calculation for item entries

Example
Key operation
Print
（When a premium
of $15 \%$ is
programmed for
the $\% 2$ key）

| Print |  |
| :---: | :---: |
| DTT．ES | 80.00 |
|  | 15．00\％ |
| za | $\times 1.20$ |
| F．000090 | \％ 6.00 |
|  | $7.5 \%$ |
| $\underline{2}$ | $\times 10.38$ |
| CABH | 458 |

## 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

| DFT．CE | 95.75 |
| :---: | :---: |
| F100000 | ＊7．50 |
| 4 a | $-1.00$ |
| Cag | －25 |

Deduction for item entries

## Example

Key operation $\begin{array}{r}675{ }^{7} \\ 75 \Theta \\ \hline \mathrm{TL}\end{array}$

Print

| DPTn石 | 86.75 |
| :---: | :---: |
| c－3 | $-0.75$ |
| CASH | 雄吅 |

## ■ Refund entries

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; and if an item entered into a PLU is returned, enter the corresponding PLU code, then press the RF and PLU/SUB keys, or press the RF and direct PLU keys without entry of PLU code, in this order.

## Example

Key operation


Print

| DTMEA | 5-2.50 |
| :---: | :---: |
| $-7 \times 2.10$ |  |
| Flowous | 8-14.70 |
| Chatre | 大177 |

## - 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


Print

```
W000000000012%0
DFT.CG Y5.00
CEDIL *NE FOL
```


## 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. Cash alone can be handled after currency exchange.

## Procedure


*Exchange rate: 0.000000 to 999.999999
Note When the amount tendered is short, the deficit is shown in domestic currency.

Key operation

|  |  | 2300 |
| :--- | :--- | :--- |
| Currency <br> exchange | 4650 | 7 |
| Amount <br> tendered in <br> foreign currency | $\longrightarrow$ | 10000 |

Print


Manual exchange rate - EX4 (The Ex4 key can be used only for the manual entry of an exchange rate.)

Key operation

$$
\begin{array}{r}
2300 \boxed{6} \\
4650 \quad 7 \\
0 \longdiv { 6 0 7 0 } \begin{array} { r } 
{ \text { EX4 } } \\
{ 1 0 0 0 0 \text { TL } }
\end{array}
\end{array}
$$

Print


■ Received on account entries

## Procedure



## Example

$$
\begin{array}{r}
12345 \\
4800 \\
\hline 8 \\
\hline \text { RA } \\
\hline \mathrm{CH} 1 \\
\hline
\end{array}
$$

```
4000000000012345
CHECK
MPA
*48.00
```


## - Paid out entries

## Procedure



Key operation


Print

```
#0000000000006%89
LHECN
MAFT
                                    40.00
```


## 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
WIS SALE
```


## - Cashing a cheque

Enter the cheque amount, then press one of the $\mathrm{CHH}_{1}$ through $\mathrm{CH}_{4}$ key.

## Procedure



## Example

Key operation
Print
6789 \#
3000 CH1

| Print |  |
| :---: | :---: |
| \#000000000006789 |  |
| CA/CHI | 930.00 |

## 7 Automatic sequencing key (ANTO) key) entries

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

## Example (

$\qquad$
ATOO

Print


## CORRECTION

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

If you make an incorrect entry relating to a department, PLU/subdepartment, percentage ( $\% 1$ through \%4 ), deduction ( $\Theta$ through $\Theta 4$ ) or refund, you can void this entry by pressing the $\infty$ key immediately after the incorrect entry.

## Example

Key operation


Print

| DFT.U8 | $\times 12.50$ |
| :---: | :---: |
| DPT, 0 | $4-12.50$ |
| Flou0002 | $\times 1.50$ |
| Fiououe | 4-1.50 |
| DPT.EPE | 86.00 |
|  | $15.00 \%$ |
| 2m | 49.90 |
| min | 40.90 |
| DPT. MF | +3.28 |
| $x-7$ | -0,28 |
| $4-3$ | ต*0. 28 |
| DFTALE | F-2.50 |
| OFT.DAC | F6\%2.50 |
| EASH | 7 F |

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

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

## Example

Key operation


Print

| DFT. C | X13.10 |
| :---: | :---: |
| DFT. $\square 7$ | $\times 17.55$ |
| Ploo0010 | $\times 7.15$ |
| FL000008 | 4.00 |
| FLoonose | Y3, 00 |
| DFT. Dr | 88.25 |
| DFT. DE | क-13. 10 |
| FL000008 | n-3.00 |
| FL000068 | (7) $)^{3} 00$ |
| CHBH | 2 y |

## 3 Subtotal void

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

| Example | Key operation | Print |  |
| :---: | :---: | :---: | :---: |
|  | 13102 |  |  |
|  | 17556 | DTME | $\times 13.10$ |
|  | 10 PLU/SUB | DTTME | 817.55 |
|  | 35 PLU/SUB | F1.000010 | x7. 15 |
|  | ST | Flonous | $\times 100$ |
|  | Subtotal void $\omega$ | SIETUTAL | \%40.80 |
|  | Subtar | SETL \% | $-40.80$ |
|  |  | MATITHL | 大O.00 |

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

Any errors found after the entry of a transaction has been completed or during an amount tendered entry cannot be voided. These errors must be 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 Bori key. This will produce a receipt. Your register can also print a copy receipt when the receipt function is in the "ON" status.

Note


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

| Key operation |  | Print |
| :---: | :---: | :---: |
| $\begin{array}{r\|r\|} 850 & 2 \\ 3 & \otimes \\ 150 & 1 \\ \hline & \\ \hline \text { TL } \end{array}$ | (erint on the |  |
| For receipting $\rightarrow$ هCOT | Print on the receipt |  |

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


## 2 Guest check copy

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

## Procedure



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

## Example

Key operation


Print


## 3 Validation printing function

Your cash register can perform a validation printing.

## ■ Validation slip setting and printing

Insert a validation slip into the printer with its printed face to the front of the machine (see the figure below), then press the vp key.


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

## ■ Validation printing examples

## Validation printing of item entries

## Example <br> -Department entry



- PLU entry

| $31 / 08 / 98$ | $1116: 55$ | FL000001 |  |
| :--- | :--- | :--- | :--- |

- Deduction entry $(\Theta$ through $\Theta 4)$

| $31 / 08 / 78$ | 1116526 | - -1. | -10.00 |
| :--- | :--- | :--- | :--- |

- Refund entry

| $31 / 08 / 98$ | $1116 n 32$ | DFT. |
| :--- | :--- | :--- | :--- |

- Item percent entry (\%1 through \%4)

- Void entry



## Validation printing after the finalization of a transaction



TL or CA2 key
-When an amount tendered entry is made -When no amount tendered entry is made CH1 to CH 4 key
-When an amount tendered entry is made -When no amount tendered entry is made -When a check cashing operation is made
CR1 to CR4 key
RA key
RA2 key
PO key
PO2 key

Transaction symbol
*** TOTAL
CASH or CASH2
CHECK or CHECK2 to CHECK4 Amount tendered
CHECK or CHECK2 to CHECK4 Sales amount
CA/CHK
CREDIT1 to CREDIT4
*** RA
*** RA2
*** PO
*** PO2

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

Validation printing of the training mode


Note

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

1. Turn the mode switch to the "MGR" position.
2. $\bullet \rightarrow \mathrm{VP}$

## ■ Validation slip specification

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

- Type of paper: plain paper
- Paper thickness: 0.07 to 0.14 mm
- Paper width: 130 mm or more
- Paper height: 70 mm or more
- Print position



## 4 Printing of the employee arrival and departure times

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

1. Turn the mode switch to the "OP X/Z" position.
2. Put a card into the paper chute and perform the following key operation.

- Arrival time

Numeric key $1 \rightarrow$ VP

- Departure time

Numeric key $2 \rightarrow$ vp
3. Sample printout


## 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

1. Cashier 1 is assigned.

2. Cashier 2 is assigned.

| 2 | CASH |
| :---: | :---: |
| 3 | $\otimes$ |
| 150 | 2 |
|  | TL |

3. Cashier 1 is assigned.

| $1{ }^{\text {casab }}$ |  |
| :---: | :---: |
| 100 | 1 |
| 360 | 3 |
|  | TL |

## Comments

The entry by cashier 1 is started.

The entry by cashier 2 is started.
(The entry by cashier 1 is interrupted.)

The transaction by cashier 2 is finalized.

The entry by cashier 1 is restarted.

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.)


## 2 In case of printer's motor locking

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

1. Unplug the power cord from the outlet.
2. Insure the printer is clear of any obstructions (e.g paper jams, etc).
3. Plug the power cord into the outlet. The following format appears in the display.
"-_-_---_-_"
4. Feed the receipt and journal paper to the proper position.
5. Press the CL key.
6. The register prints the power failure symbol and continues printing.

## 3 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.

- 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.



## 4 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:
$44.5 \pm 0.5 \mathrm{~mm}$
Max. outside diameter: 80 mm
Weight:
Quality:
Paper tube:
$52.3-64.0 \mathrm{~g} / \mathrm{m}^{2}$
bond paper
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.

## (How to set the paper roll)


(How to cut the paper end)

To release the paper, press the paper release lever down. It is also used for removing a paper jam. The method for removing a paper jam is described in "Removing a paper jam" later in this section.

## - Installing the paper roll

Installing the receipt paper roll


1. Turn the mode switch to the "REG" position with the AC cord connected.
2. Remove the printer cover.
3. Set the paper roll correctly and drop it into the printer.
4. Press the receipt paper release lever down and insert the paper end into the paper chute of the printer.
5. Pull the paper end that has come out of the printer, holding down the lever.
6. Advance the paper by a required length by pressing the receipt paper feed key.
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. Set the paper roll correctly and drop it into the printer.
4. Press the journal paper release lever down, insert the paper end that has come out of the printer into the slit in the paper take-up spool, wind it two or three turns around spool shaft.
5. Set the spool on the bearing.
6. Replace the printer cover.

## Note

Make sure the ink ribbon cassette has been mounted on the printer when installing the receipt paper roll or the journal paper roll.

## 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.

## Removing the receipt paper roll



## Removing the journal paper roll



1. Remove the printer cover.
2. Press and hold the receipt paper release lever down and remove the existing paper roll from the paper roll location.

Note Be sure to pull the roll in the direction of the arrow.

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

3. Press and hold the journal paper release lever down and remove the existing paper roll from the paper roll location.

Note Be sure to pull the roll in the direction of the arrow.
4. Remove the paper roll from the take-up spool.


## Removing a paper jam

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


5 Installing the ink ribbon cassette


1. Remove the printer cover.
2. Rotate the knob on the ink ribbon cassette in the direction of the arrow to stretch the ribbon tight.
3. Put the ink ribbon cassette in the location indicated in the figure at left and fix it by using the right and left guides.
4. Rotate the knob two or three turns in the direction of the arrow to make sure it rotates smoothly. Also, make sure the ribbon is not folded.
5. To remove the cassette, lift it up.

## Precautions:

- Be sure to use an ink ribbon cassette specified by SHARP. The use of any ink ribbon cassettes other than specified could cause troubles in the printer.
- After opening the parcel, be careful not to make the surface of the ink ribbon dirty, and install it soon.
- If you preserve the ink ribbon cassette for a long time, the ink will be dry and the ink ribbon cassette's life will be shortened. Please use it soon. If you do not use it soon, put it in an airtight receptacle and preserve it in a cool and dark place.

6 Removing the till and the drawer
The till in the register is detachable. After closing your business for the day, remove the till from the drawer and keep the drawer open. 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.


## 7 Opening the drawer by hand

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


## 8 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.

## 9 Before calling for service

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

| Fault | Checking |
| :---: | :---: |
| (1) The display won't be illuminated even when the mode switch is turned to any other position than " $\downarrow$ ". | - Is power supplied to the electric outlet? <br> - 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? <br> - Is a clerk code assigned to the register? <br> - Is the mode switch set properly at the "REG" position? |
| (3) No receipt is issued. | - Is the receipt paper roll properly installed? <br> - Is there a paper jam? <br> - Is the receipt function in the "OFF" status? |
| (4) No journal paper is taken up. | - Is the take-up spool installed on the bearing properly? <br> - Is there a paper jam? |
| (5) Printing is unusual. | - Is the ink ribbon cassette installed properly? <br> - Is the ink ribbon life completed? |

## - 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 | Paper 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. |
| E39 | Power-off during validation printing | Print a validation again. |
| 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
-EFT interface board model ER-01EF
-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: $301 \times 2$ size key kits
ER-22KT7: $102 \times 2$ size key kits
ER-11DK7G: 30 regular size dummy key kits
ER-51DK7G: $105 \times 1$ size dummy key kits

## SPECIFICATIONS

| Model: | ER-A440 |
| :---: | :---: |
| Dimensions: | 355 (W) x 424 (D) $\times 308$ (H) mm |
| Weight: | 13.5 kg |
| Power source: | Official (nominal) voltage and frequency |
| Power consumption: | Stand-by 11.5W |
|  | Operating 42W (max.) |
| Working temperature: | $0^{\circ} \mathrm{C}$ to $40^{\circ} \mathrm{C}$ |
| 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 serial dot-matrix ( $7 \times 7$ font) printer |
| Printing speed: | Approx. 3.0 lines/second |
| Printing capacity: | 24 digits each for receipt and journal paper |
| Other functions: | - Logo message function |
|  | - Receipt (ON-OFF) function, journal selective function |
|  | -Receipt and journal independent paper feed function |
|  | - Validation printing function |
| Ink ribbon: | Color: Purple (single color) |
| (Cassette type) | Width: 13 mm |
|  | Length: 9 meters |
| Paper roll: | Width: $44.5 \pm 0.5 \mathrm{~mm}$ |
|  | Max. diam.: 80 mm |
|  | Weight: $52.3-64.0 \mathrm{~g} / \mathrm{m}^{2}$ (bond paper) |
| 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 |
|  | Ink ribbon cassette 1 |
|  | Paper roll 2 |
|  | Take-up spool 1 |
|  | Fixing angle bracket 1 |
|  | Instruction manual 1 copy |

[^3]
## FOR CUSTOMERS IN U.K.

## IMPORTANT

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

## BLUE: <br> BROWN:

## Neutral <br> 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 $\mathbf{L}$ 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.


## Mijöskydd

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 utsättas för öppen eld.


## SHARP.

## SHARP CORPORATION

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[^0]:    * (DC): Double-size character code

[^1]:    * When you take this report in the PGM1 mode, the PGM2 indication is replaced by a "PGM1".

[^2]:    * 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".

[^3]:    * Specifications and appearance subject to change without notice for improvement.

