

# SHARP PROGRAMMING MANUAL

CODE : 00ZXEA303VPME



**LEAD-FREE SOLDER MODEL**

## **ELECTRONIC CASH REGISTER**

### **MODEL XE-A303**

(For "V" version)

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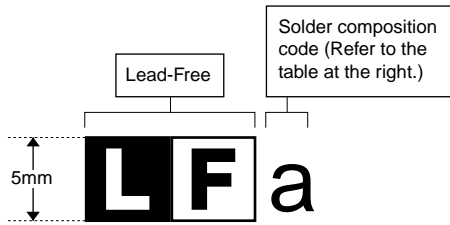
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Parts marked with "△" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

## LEAD-FREE SOLDER

The PWB's of this model employ lead-free solder. The "LF" marks indicated on the PWB's and the Service Manual mean "Lead-Free" solder. The alphabet following the LF mark shows the kind of lead-free solder.

### Example:



<Solder composition code of lead-free solder>

Solder composition	Solder composition code
Sn-Ag-Cu	a
Sn-Ag-Bi Sn-Ag-Bi-Cu	b
Sn-Zn-Bi	z
Sn-In-Ag-Bi	i
Sn-Cu-Ni	n
Sn-Ag-Sb	s
Bi-Sn-Ag-P Bi-Sn-Ag	p

### (1) NOTE FOR THE USE OF LEAD-FREE SOLDER THREAD

When repairing a lead-free solder PWB, use lead-free solder thread. Never use conventional lead solder thread, which may cause a breakdown or an accident.

Since the melting point of lead-free solder thread is about 40°C higher than that of conventional lead solder thread, the use of the exclusive-use soldering iron is recommendable.

### (2) NOTE FOR SOLDERING WORK

Since the melting point of lead-free solder is about 220°C, which is about 40°C higher than that of conventional lead solder, and its soldering capacity is inferior to conventional one, it is apt to keep the soldering iron in contact with the PWB for longer time. This may cause land separation or may exceed the heat-resistive temperature of components. Use enough care to separate the soldering iron from the PWB when completion of soldering is confirmed.

Since lead-free solder includes a greater quantity of tin, the iron tip may corrode easily. Turn ON/OFF the soldering iron power frequently.

If different-kind solder remains on the soldering iron tip, it is melted together with lead-free solder. To avoid this, clean the soldering iron tip after completion of soldering work.

If the soldering iron tip is discolored black during soldering work, clean and file the tip with steel wool or a fine filer.

# CHAPTER 1. MASTER RESET AND PROGRAM RESET

## 1. MASTER RESETTING

Master resetting clears the entire memory and resumes initial values.

Master resetting can be accomplished by using the following procedure:

Procedure:

- 1) Unplug the AC cord from the wall outlet, or set the mode switch to OFF position.
- 2) Set the mode switch to the PGM position.
- 3) While holding down both the JOURNAL FEED key and [CL] key, plugin the AC cord to the wall outlet.

The master reset can also be accomplished in the following case.

In case power failure occurs when the machine has no battery attached to it, the master reset operation is automatically performed after the power has been plugged the AC cord to the wall outlet.

(This is because if power failure occurs with no battery attached to the machine, all the memories are lost and the machine does not work properly after power recovery; this requires the master reset operation.)

## 2. PROGRAM RESETTING (INITIALIZATION)

This resetting resumes the initial program without clearing memory.

This resetting can be operated at below sequence in PGM mode.

Procedure:

- 1) Unplug the AC cord from the wall outlet.
- 2) Wait over 1 minute for discharging.
- 3) Set the mode switch to the PGM position.
- 4) While holding down the JOURNAL FEED key and RECEIPT FEED key, plugin the AC cord to the wall outlet.

Note: In case power failure occurs when the machine has no battery attached to it, the master reset operation is automatically performed after the power has been restored.

# CHAPTER 2. PROGRAM MODE

## 1. READING STORED PROGRAMS

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

### ■ Key sequence for reading stored program

Report name	Key sequence
Programmed data1 report	<b>TL</b>
Programmed data2 report	2 → <b>TL</b>
Auto key programming report	1 → <b>TL</b>
Printer density report	3 → <b>TL</b>
DEPT data report	4 → <b>TL</b>
PLU data report (*)	Start No. → <b>(X)</b> → End No. → <b>PLU</b>

(\*) PLU code range can be specified by entering the start and end numbers according to the following procedure.

When specifying a single time interval, PLU code, the start number has only to be entered.

### ■ SAMPLE PRINTOUTS

#### 1. PROGRAMMED DATA1 REPORT

HEADER	
05/02/2001 12:34PM	01 DATE/TIME/CLERK CODE
123456#123456 M.CLERK	MACHINE NO./CC-NO./CLERK NAME
F01 (-) xxxxxx	007 FUNCTION NO./TEXT/PROGRAM (*1)
-1000.00	AMOUNT WITH SIGN
F02 %1xxxxxxxx	000 FUNCTION NO./TEXT/PROGRAM (*1)
L100.00%	-10.00% HALO WITHOUT SIGN/RATE WITH SIGN
F03 %2xxxxxxxx	000
L100.00%	-100.00%
F04 NET1xxxx	FUNCTION NO./TEXT
F05 DIFFERxxxx	FUNCTION NO./TEXT
:	:
F26 ***RAxxxxxx	9 FUNCTION NO./TEXT/HALO
F27 ***POxxxxxx	9
:	:
F32 CASHxxxx	008
F33 CHECKxxxxxx	008
F34 CHECK2xxxxxx	008
F35 CREDIT1xxxxx	008
F36 CREDIT2xxxxx	008
F37 EXCH1xxxxxxx	002
ABCD	999.999999 CURRENCY SYMBOL/RATE
F38 EXCH2xxxxxxx	FUNCTION NO./TEXT
:	:

F85 #	FUNCTION NO./TEXT
F86 COPY	FUNCTION NO./TEXT
F87 EX1 CHG	FUNCTION NO./TEXT
F88 AMOUNT	FUNCTION NO./TEXT
SHARP PRESENTS THE XE-A303 SHARP IS THE BEST	
LOGO TEXT (It is according with LOGO FORMAT.)	
#5 00000000	(JOB#5) FUNCTION SELECT
#6 00000000	(JOB#6) PRINT FUNCTION
#7 00000000	(JOB#7) RECEIPT PRINT FORMAT
#8 0000	(JOB#8) EURO FUNCTIONS
#10 0000	(JOB#10) POWER SAVING PROGRAMMING
#11 0	(JOB#11) LOGO FORMAT
#12 00	(JOB#12) EURO PROGRAMMING
#13 00/00/0000	(JOB#13) EURO CHANGING DATE (Printed by Date format)
#14 00:00	(JOB#14) EURO CHANGING HOUR
#20 99999999.99	(JOB#20) SENTINEL AMOUNT
#21 999999.99	(JOB#21) CHECK CASHING LIMITATION AMOUNT
#22 999999.99	(JOB#22) CHECK CHANGE LIMITATION AMOUNT
#35 007	(JOB#35) USB Timeout time
T1 10.0000%	TAX1 RATE
123.45	LOWER TAX LIMIT
T2 4.0000%	TAX2 RATE
0.10	LOWER TAX LIMIT
T3 -5.0000%	TAX3
0.20	
T4 -----	TAX4 (g----- h:INHIBIT)
C#01 11	Clerk No./Clerk name/CODE
C#02 xxxxxxxxxxxx	12
:	:
C#25 xxxxxxxxxxxx	00

VARIOUS PROGRAM Refer to the programming section about the data of each JOB.

#### (\*1) (-)/% PROGRAM : ABC

A:	ENTRY FOR ITEM	A
	ENABLE	0
	DISABLE	1
B:	ENTRY FOR SBTL	B
	ENABLE	0
	DISABLE	1

C: LIMITATION DIGITS (for (-) key) = 0 to 7 (0 FIXED for [%n])

#### (\*2) MEDIA PROGRAM : ABC

A:	Footer print on Receipt	A
	No	0
	Yes	1
B:	Entry of amount tenderd	B
	Noncompulsory (Cash, check)/Inhibit (Credit)	0
	Compulsory	1

C: LIMITATION DIGITS (0=INHIBIT) = 0 to 8

**(\*) EXCH PROGRAM : ABC**

A:	OPEN RATE ENTRY	A
	ENABLE	0
	DISABLE	1
B:	PRESET RATE ENTRY	B
	ENABLE	0
	DISABLE	1
C:	TAB	C
	0	0
	0.0	1
	0.00	2
	0.000	3

**2. PROGRAMMED DATA2 REPORT**

HEADER	
05/02/2001 12:34PM 01	DATE/TIME/CLERK CODE
123456#123456 M.CLERK__	MACHINE NO. /CC-NO. / CLERK NAME
<b>*PGM*</b>	MODE TITLE
#61 00000000	(JOB#61) OTHERS1
#62 00000000	(JOB#62) OTHERS2
#63 00000000	(JOB#63) OTHERS3
#64 00000000	(JOB#64) OTHERS4
#65 00000000	(JOB#65) OTHERS5
#66 00000000	(JOB#66) OTHERS6
#67 00000000	(JOB#67) OTHERS7
#68 00000000	(JOB#68) OTHERS8
#69 00000000	(JOB#69) OTHERS9
#70 00000000	(JOB#70) OTHERS10
#71	
GT2 \$0000000000.00	GT2
#72	
GT3 \$0000000000.00	GT3
#76 Z1 0000	GENERAL Z1 RESET COUNTER
#77 Z2 0000	GENERAL Z2 RESET COUNTER
#85 *	DOMESTIC CURRENCY SYMBOL
#86 OO	TRAINING CLERK
#87 **TRAINING**	TRAINING MODE TEXT
#88 O	LANGUAGE MODE
	(For the fixed messages)
	: OTHERS PROGRAM
	Refer to the programming section about the data of each JOB.

**3. AUTO KEY PROGRAMMING REPORT**

HEADER	
05/02/2001 12:34PM 01	DATE/TIME/CLERK CODE
123456#123456 M.CLERK__	MACHINE NO. /CC-NO. / CLERK NAME
<b>*PGM*</b>	MODE TITLE
#01	
1	KEY TEXT
0	
0	
0	
TL	
#02	
D01	(DEPT01)
D02	
D03	
-----	DELETE (NO KEY)

**4. PRINTER DENSITY REPORT**

HEADER	
05/02/2001 12:34PM 01	DATE/TIME/CLERK CODE
123456#123456 M.CLERK__	MACHINE NO. /CC-NO. / CLERK NAME
<b>*PGM*</b>	MODE TITLE
#50	Thermal printer density
10 : 0123456789AB	Printing Sample
20 : 0123456789AB	(Light&Shade value between 10 to 90.)
30 : 0123456789AB	
40 : 0123456789AB	
50 : 0123456789AB	
60 : 0123456789AB	
70 : 0123456789AB	
80 : 0123456789AB	
90 : 0123456789AB	

**5. DEPT DATA REPORT**

HEADER	
05/02/2001 12:34PM 01	DATE/TIME/CLERK CODE
123456#123456 M.CLERK__	MACHINE NO. /CC-NO. / CLERK NAME
<b>*PGM*</b>	MODE TITLE
D01 DPT.01xxxxxx	DEPT CODE/TAXABLE/PROGRAM (*) TEXT
G01 -1234.56	DEPT GROUP/PRICE WITH SIGN
D02 DPT.02	
G02 -1234.56	
:	
:	
D99 DPT.99	(MAX department is decided by PGM selection.)

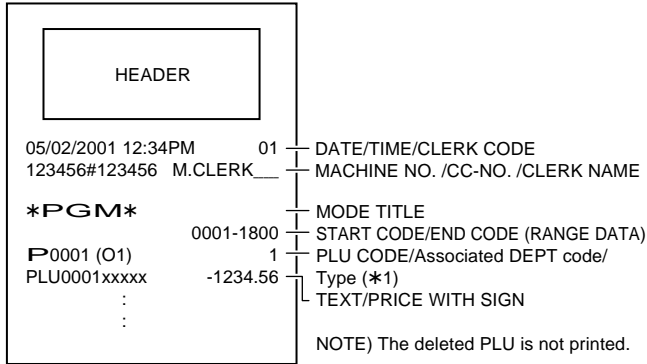
**(\*) DEPT PROGRAM : ABC**

A:	REGISTRATION TYPE	A
	NORMAL	0
	SICS	1

B: LIMITATION DIGITS = 0 to 8

C:	AMOUNT ENTRY TYPE	C
	Inhibited	0
	Open	1
	Preset	2
	Open and Preset	3

## 6. PLU PROGRAMMING REPORT



P0001 ---- When PLU is deleted at the programming JOB.

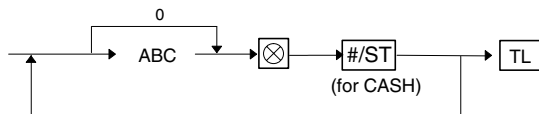
### (\*1) PROGRAM : Y

Y:	PROGRAM	Y
	SUBDEPT	0
	PLU	1

## 2. USER PROGRAMMING

### 1) PROGRAMMING FOR MEDIA KEYS & FUNCTION KEYS

([#/ST] key is used for programming of CASH.)

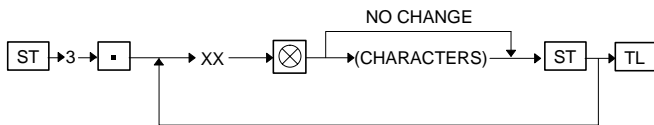


A:	Footer print on Receipt	A	
	No	0	★
	Yes	1	
B:	Entry of amount tenderd	B	
	Non-compulsory	0	★
	Compulsory	1	

C: LIMITATION DIGITS (0 = INHIBIT)  
= 0 to 8

MRS = 008

### 2) PROGRAMMING OF FUNCTION TEXT



XX: FUNCTION CODE (Refer to the FUNCTION LIST)  
(CHARACTERS): CHARACTER (Max. 12 Characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.

THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

YYY → [00] KEY

YYY: CHARACTER CODE (3 DIGITS)

( or [000] KEY ACCORDING TO PGM PRESET)

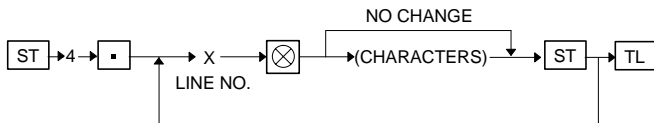
MRS = Refer to the following table

## FUNCTION LIST

F-NO.	FUNCTION	DEFAULT TEXT 123456789012
1	(-)	( - )
2	%1	%1
3	%2	%2
4	NET1	<b>NET1</b>
5	DIFFER	DIFFER
6	TAXABLE1 ST	TAX1 ST
7	TAXABLE2 ST	TAX2 ST
8	TAXABLE3 ST	TAX3 ST
9	TAXABLE4 ST	TAX4 ST
10	VAT/TAX 1	VAT 1
11	VAT/TAX 2	VAT 2
12	VAT/TAX 3	VAT 3
13	VAT/TAX 4	VAT 4
14	TOTAL TAX (on Report)	TTL TAX
15	NET WITHOUT TAX (on Report)	<b>NET</b>
16	NET2	<b>NET2</b>
17	COUPON PLU	CP PLU
18	REFUND	REFUND
19	VOID	∞
20	VOID MODE	∞ MODE
21	MANAGER VOID	MGR ∞
22	SBTL VOID	SBTL ∞
23	HASH VOID	HASH ∞
24	HASH REFUND	HASH RF
25	NO SALE	NO SALE
26	RA	***RA
27	PO	***PO
28	CHECK CASHING	CA/CHK
29	CUSTOMER (TRANS. COUNT)	GUEST
30	PAID TOTAL	PAID TL
31	AVERAGE	AVE.
32	CASH	<b>CASH</b>
33	CHECK1	CHECK1
34	CHECK2	CHECK2
35	CREDIT1	CREDIT1
36	CREDIT2	CREDIT2
37	EXCHANGE (PRESET RATE)	EXCH1
38	EXCHANGE (OPEN RATE)	EXCH2
39	EXCHANGE IS	EXCH1 IS
40	EXCHANGE1 CHECK	EX1 CHK
41	EXCHANGE1 CREDIT TOTAL	EX1 CR
42	CASH IN DRAWER	****CID
43	CASH/CHECK IS	CA/CH IS
44	CASH/CHECK IN DRAWER	CA/CH ID
45	CHECK CHANGE	CHK/CG
46	DOMESTIC CURRENCY1	DOM. CUR1
47	DOMESTIC CURRENCY2	DOM. CUR2
48	DOMESTIC CURRENCY FOR EX1 CHECK	DOM. CUR1
49	DOMESTIC CURRENCY FOR EX1 CREDIT	DOM. CUR1
50	CHECK IN DRAWER	*CH ID
51	GROUP1	GROUP1
52	GROUP2	GROUP2

F-NO.	FUNCTION	DEFAULT TEXT 123456789012
53	GROUP3	GROUP3
54	GROUP4	GROUP4
55	GROUP5	GROUP5
56	GROUP6	GROUP6
57	GROUP7	GROUP7
58	GROUP8	GROUP8
59	GROUP9	GROUP9
60	(+) DEPT TOTAL	*DEPT TL
61	(-) DEPT TOTAL	DEPT (-)
62	HASH (+) DEPT TOTAL	*HASH TL
63	HASH (-) DEPT TOTAL	HASH (-)
64	NET 1 (TAXABLE1-VAT1)	NET 1
65	NET 2 (TAXABLE2-VAT2)	NET 2
66	NET 3 (TAXABLE3-VAT3)	NET 3
67	NET 4 (TAXABLE4-VAT4)	NET 4
68	SUBTOTAL	SUBTOTAL
69	MDS SBTL	MDSE ST
70	TOTAL	***TOTAL
71	CHANGE	CHANGE
72	ITEMS	ITEMS
73	DUE (on DISPLAY)	DUE
74	CCD	<b>CCD</b>
75	CCD DIFFER	CCD DIF.
76	CCD DIFFER TOTAL	DIF. TL
77	DEPT. REPO. TITLE	<b>DEPT</b>
78	GROUP. REPO. TITLE	<b>GROUP</b>
79	PLU REPO. TITLE	<b>PLU</b>
80	TRANS. REPO. TITLE	<b>TRANS.</b>
81	CID REPO. TITLE	<b>TL - ID</b>
82	CLERK REPO. TITLE	<b>CLERK</b>
83	HOURLY REPO. TITLE	<b>HOURL Y</b>
84	DAILY NET REPO. TITLE	<b>DAILY</b>
85	NON ADD CODE TEXT (8chara)	#
86	COPY RECEIPT TITLE	<b>COPY</b>
87	EXCHANGE1 CHANGE (on DISPLAY)	EX1 CHG
88	AMOUNT (for AMOUNT ENTRY DISPLAY)	AMOUNT

## 2) PROGRAMMING OF LOGO TEXT



X: LINE NO. (1-6)

(CHARACTERS): CHARACTER (Max. 30 Characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.

THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

YYY → [00] KEY

YYY: CHARACTER CODE (3 DIGITS)

(or [000] KEY ACCORDING TO PGM PRESET)

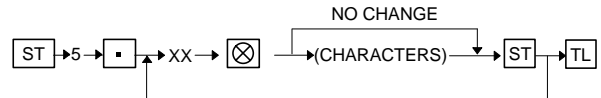
(Sample)

123456789012345678901234567890

MRS =

**SHARP**  
PRESENTS THE  
**XE-A303**  
**SHARP**  
**IS**  
**THE BEST**

## 3) PROGRAMMING OF CLERK NAME



XX: CLERK NO. (1-25)

(CHARACTERS): CHARACTER (Max. 12 Characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.

THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

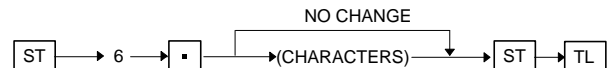
YYY → [00] KEY

YYY: CHARACTER CODE (3 DIGITS)

(or [000] KEY ACCORDING TO PGM PRESET)

MRS = CLERKxx (xx: CLERK code 1 to 4)

## 4) FOREIGN CURRENCY SYMBOL PROGRAMMING



(CHARACTERS): CHARACTER (Max. 4 Characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.

THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

YYY → [00] KEY

YYY: CHARACTER CODE (3 DIGITS)

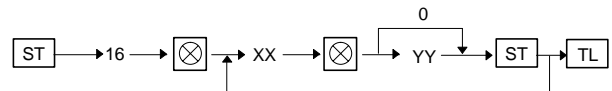
(or [000] KEY ACCORDING TO PGM PRESET)

MRS = \_\_\_\_ ( : space code)

Note: This symbol is printed as the amount of EXCHANGE for PRESET RATE only.

The amount symbol of EXCHANGE for OPEN RATE is not printed.

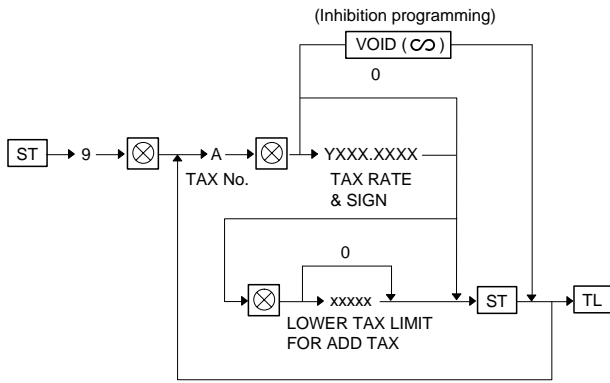
## 5) CLERK CODE DEFINITION



XX: CLERK NO. (1 to 25)

YY: CLERK CODE (00 to 99)

## 6) TAX RATE PROGRAMMING



- A: TAX 1 PROGRAMMING = 1
- TAX 2 PROGRAMMING = 2
- TAX 3 PROGRAMMING = 3
- TAX 4 PROGRAMMING = 4

### % TAX RATE & SIGN

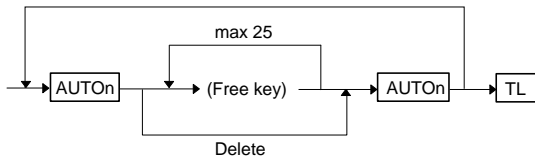
Y: SIGN	Y
+	0
-	1

XXX.XXXX: RATE = 0.0000 to 100.0000 %

LOWER TAX LIMITATION 0.00 to 999.99  
(This is invalid in VAT system.)

MRS = DELETE

## 7) AUTO KEY PROGRAMMING



It must be pushed same [AUTO] key as the programming [AUTO] key at the end of any key entry.

Note: [ESC] key cannot be set at [AUTO] key programming.

It acts as a key of ERROR ESCAPE function in this programming.

### < Auto key function >

This machine has [AUTO] key which can be programmed the key-sequence data.

When [AUTO] key is depressed, the machine works as same as the programmed key-sequence is entered.

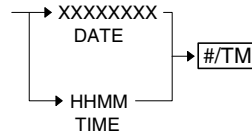
Executing mode : REG, MGR, OPXZ, X1/Z1, X2/Z2

Setting mode : PGM

## 8) EURO STATUS FUNCTION

The ECR has a EURO STATUS in the preset memory. It is changed by EURO CHANGING JOB and confirmed by EURO STATUS READING JOB at Z2 mode. Refer XZ report section.

## 9) DATE, TIME PROGRAMMING



DATE) XXXXXXXX: YYYYMMDD (Year-month-day) or DDMMYYYY (Day-month-Year) or MMDDYYYY (Month-day-Year)  
(YYYY: 2000-2099)  
(MM: 01-12)  
(DD: 01-31)

The date entry format complies with the applicable PGM-mode programming.

TIME) HH: Hour (00 to 23)  
MM: Minute (00 to 59)

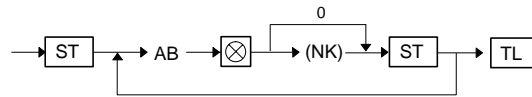
MRS = DATE: 01012000 (DD/MM/YYYY)

TIME: 0000

## 10) VARIOUS PROGRAMMING (EACH FUNCTIONS PROGRAMMING)

There are programmed by depressing [ST] key after a data that want to set. And it is operated continuously until depressing the [TL] key

(Programming sequence)



AB : JOB No.

NK : PROGRAMMING DATA. (Numeric Keys)

### [JOB#1] MACHINE No. (6digits) -- XXXXXX --

MRS = 000000

### [JOB#2] CONSECUTIVE No. (6digits) -- XXXXXX --

MRS = 000000

### [JOB#5] FUNCTION SELECT -- ABCDEFGH --

MRS = 00000001

A: PO in REG mode	A	
ENABLE	0	★
DISABLE	1	
B: RA in REG mode	B	
ENABLE	0	★
DISABLE	1	
C: SUBTOTAL VOID in REG mode	C	
ENABLE	0	★
DISABLE	1	



D:	INDIRECT VOID in REG mode	D	
	ENABLE	0	★
	DISABLE	1	
E:	DIRECT VOID in REG mode	E	
	ENABLE	0	★
	DISABLE	1	
F:	REFUND in REG mode	F	
	ENABLE	0	★
	DISABLE	1	
G:	NO SALE in REG mode	G	
	ENABLE	0	★
	DISABLE	1	
H:	FRACTIONAL QUANTITY	H	
	YES (3digits decimal place)	0	
	NO	1	★

**[JOB#6] PRINT FORMAT -- ABCDEFGH --**

MRS = 00000111

A: Not used (Fixed at "0")

B:	PRINT	B	
	FULL PRINT	0	★
	JOURNAL SELECT	1	
C:	TIME PRINTING (for all receipt)	C	
	PRINT	0	★
	NOT PRINT	1	
D:	DATE PRINTING (for all receipt)	D	
	PRINT	0	★
	NOT PRINT	1	
E:	CONSECUTIVE NO. PRINTING	E	
	PRINT	0	★
	NOT PRINT	1	
F:	SEPARATER LINE IN XZ REPORT	F	
	1 LINE FEED	0	
	SEPARATOR LINE	1	★
G:	ZERO SKIP IN PLU REPORT	G	
	NOT SKIP	0	
	SKIP	1	★
H:	ZERO SKIP IN GENERAL, CLERK, HOURLY, DAILY REPOT	H	
	NOT SKIP	0	
	SKIP	1	★

**[JOB#7] RECEIPT PRINT FORMAT -- ABCDEFGH --**

MRS = 00000000

A, B: Not used (Fixed at "00")

C:	SUBTOTAL PRINT AT [ST] - KEY	C	
	NOT PRINT	0	★
	PRINT	1	
D:	Not used (Fixed at "0")		
E:	VAT/TAX AMOUNT PRINTING	E	
	PRINT	0	★
	NOT PRINT	1	
F:	TAXABLE AMOUNT PRINTING	F	
	PRINT	0	★
	NOT PRINT	1	
G:	NET AMOUNT PRINTING	G	
	PRINT	0	★
	NOT PRINT	1	
H:	PURCHASE NO. PRINTING	H	
	PRINT	0	★
	NOT PRINT	1	

**[JOB#8] EURO FUNCTIONS -- ABCD --**

MRS = 0000

A:	Printing of EX amount for Total and Change	A	
	No	0	★
	Yes	1	
B:	Not used (Fixed at "0")		
C:	CHECK,CREDIT operation for EX	C	
	No	0	★
	Yes	1	
D:	EXCHANGE Calculation method	D	
	Multiplication	0	★
	Division	1	

**[JOB#10] POWER SAVING -- YXXX --**

MRS = 0030

Y:	POWER SAVING function when a time is displayed	Y	
	Yes (Enable)	0	★
	No (Disable)	1	

XXX: POWER SAVING TIME to POWER OFF  
= 001--254 (minutes)  
or 999 (Inhibit)

**[JOB#11] LOGO PRINTING -- A --**

MRS = 5

A:	LOGO MESSAGE CONTROL	A	
	3-LINE HEADER INSTEAD OF GRAPHIC LOGO	0	
	GRAPHIC LOGO ONLY	1	
	GRAPHIC LOGO AND 3-LINE FOOTER	2	
	6-LINE HEADER	3	
	GRAPHIC LOGO AND 3-LINE HEADER	4	
	3-LINE HEADER AND 3-LINE FOOTER	5	★

**[JOB#12] EURO Programming -- AB --**

MRS = 00

A: Automatic converting the unit price at EURO	A	
YES	0	★
NO	1	

B: The EURO CHANGING JOB at the date of exchanging the currency between LOCAL and EURO.	B	
Compulsory	0	★
Non-compulsory	1	

**[JOB#13] The date of exchanging the currency between LOCAL and EURO -- XXXXXXXX --**

MRS = 00000000 (DD/MM/YYYY)

XXXXXXX: (DATE)/00000000 (Function Inhibit)

DATE) YYYYMMDD (Year-month-day) or  
 DDMMYYYY (Day-month-Year) or  
 MMDDYYYY (Month-day-Year)  
 [YYYY:2000-2099]  
 [MM:01-12]  
 [DD:01-31]

The date entry format complies with the applicable PGM-mode programming.  
 In case of date setting is 0, EURO date function is not work.

**[JOB#14] The Time (hour only) of exchanging the currency between LOCAL and EURO -- XX --**

MRS = 00

XX: Hour (00-23)

**[JOB#20] SENTINEL (CID HALO) -- XXXXXXXXXX --**

MRS = 999999999

XXXXXXXXX: SENTINEL AMOUNT (9digits)

**[JOB#21] CHECK CASHING (HALO) -- XXXXXXXX --**

MRS = 99999999

XXXXXXXXX: LIMITATION AMOUNT (8digits)

**[JOB#22] CHECK CHANGE (HALO) -- XXXXXXXX --**

MRS = 99999999

XXXXXXXXX: LIMITATION AMOUNT (8digits)

**[JOB#35] USB Communication TIME OUT -- XXX --**

MRS = 007

XXX: Time out time (1 - 255 sec)

**[JOB#50] THERMAL PRINTER DENSITY CONTROL -- XX --**

MRS = 50

XX: density (00-99)

00: 70 % for standard  
 50: 100 % (Standard density)  
 99: 130 % for standard

**[JOB#61] OTHERS1 PROGRAMMING -- ABCDEFGH --**

MRS = 00100112

A, B: Not used (Fixed at "00")

C: Programming of MINUS dept/PLU	C	
Disable	0	
Enable	1	★

D: Fractional treatment	D	
Round off (4-DOWN, 5-UP)	0	★
Raising to unit	1	
Disregarding	2	

E: 00 key or 000 key selection for 00 key position	E	
00 key	0	★
000 key	1	

F: Time format	F	
12hour	0	
24hour	1	★

G: Date format	G	
M-D-Y	0	
D-M-Y	1	★
Y-M-D	2	

H: TAB	H	
0	0	
1	1	
2	2	★
3	3	

**[JOB#62] OTHERS2 PROGRAMMING -- ABCDEFGH --**

MRS = 01000000

A: Not used (Fixed at "0")

B: ERROR BEEP for missoperation	B	
LOCK ERROR	0	
MISSOPERATION	1	★

C: Key catch sound	C	
Yes	0	★
No	1	

D: Buffered Keyboard	D	
Yes	0	★
No	1	

E: VOID mode	E	
Enable	0	★
Disable	1	

F: Printing of VOID MODE in X2/Z2 report	F	
Yes	0	★
No	1	

G: Printing of VOID MODE in X1/Z1 report	G	
Yes	0	★
No	1	

H: Addition to the hourly total in VOID MODE	H	
No	0	★
Yes	1	

**[JOB#63] OTHERS3 PROGRAMMING -- ABCDEFGH --**

MRS = 01000001

A:	Receiving at the time of NO SALE	A	
	Yes	0	★
	No	1	
B:	NO SALE after non-add code entry	B	
	Disable	0	
	Enable	1	★
C:	NON-ADD code entry	C	
	Enable	0	★
	Disable	1	
D:	Copy Receipt	D	
	No	0	★
	Yes	1	
E:	Entry that causes the merchandise SUBTOTAL to be smaller than zero.	E	
	Enable	0	★
	Disable	1	
F:	Subtotal entry before tendering	F	
	Noncompulsory	0	★
	Compulsory	1	
G:	Subtotal entry before direct non-tender finalization	G	
	Noncompulsory	0	★
	Compulsory	1	
H:	Direct non-tender finalization after tendering	H	
	Disable	0	
	Enable	1	★

**[JOB#64] OTHERS4 PROGRAMMING -- ABCDEFGH --**

MRS = 00000000

A:	Printing of GT1 on Z report	A	
	Yes	0	★
	No	1	
B:	Printing of GT2 on Z report	B	
	Yes	0	★
	No	1	
C:	Printing of GT3 on Z report	C	
	Yes	0	★
	No	1	
D:	Printing of Training GT on Z report	D	
	Yes	0	★
	No	1	
E:	Printing of Z counter on Z report	E	
	Yes	0	★
	No	1	
F:	Printing of DATA on PLU resetting report	F	
	Yes	0	★
	No	1	
G:	Reset GT 1, 2, 3 at the general Z1 report	G	
	No	0	★
	Yes	1	
H:	OP X/Z report	H	
	Enable	0	★
	Disable	1	

**[JOB#65] OTHERS5 PROGRAMMING -- ABCDEFGH --**

MRS = 00000000

A:	Printing of GT1 on X report	A	
	No	0	★
	Yes	1	
B:	Printing of GT2 on X report	B	
	No	0	★
	Yes	1	
C:	Printing of GT3 on X report	C	
	No	0	★
	Yes	1	
D:	Printing of Training GT on X report	D	
	No	0	★
	Yes	1	
E:	CLERK SYSTEM	E	
	NORMAL	0	★
	OVERLAPPED CLERK	1	
F:	IN CASE OF INDIVIDUAL AND ALL CLERK CCD, X REPORT BEFORE CCD ENTRY	F	
	DISABLE	0	★
	ENABLE	1	
G:	LOOKING OF REG MODE ENTRY AFTER INDIVIDUAL CLERK RESETTING	G	
	DISABLE	0	★
	ENABLE	1	
H:	CCD COMPULSORY	H	
	NON-COMPULSORY	0	★
	FOR INDIVIDUAL CLERK	1	
	FOR ALL CLERK	2	

**[JOB#66] OTHERS6 PROGRAMMING -- ABCDEFGH --**

MRS = 10010000

A:	AFTER-TRANSACTION RECEIPT	A	
	TOTAL ONLY	0	
	DETAILS	1	★
B:	AMOUNT PRINTING WHEN PLU UNIT PRICE IS 0	B	
	No	0	★
	Yes	1	
C:	CONVERSION SBTL PRINTING OF NATIVE SBTL	C	
	Yes	0	★
	No	1	
D:	VAT/TAX-assignment print	D	
	PRINT	0	
	NOT	1	★
E, F: Not used (Fixed at "00")			
G:	Logo Text Print on Journal	G	
	No	0	★
	Yes	1	
H:	FOOTER PRINT CONTROL	H	
	ALL RECEIPTS	0	★
	ON SELECTED FUNCTION KEY AT THE TIME OF FINALIZATION	1	

**[JOB#67] OTHERS7 PROGRAMMING -- ABCDEFGH --**

MRS = 00000000

MRS = 11821012 (only for SCA)

A: Printing of rounding amount (for SCA)	A
No	0
Yes	1

B: TOTAL AMOUNT ROUNDING when a transaction is finalized directly by CHECK or CREDIT key (for SCA) (This selection is not effective at Manual TAX system)	B
YES (Rounding)	0
NO (Not rounding)	1

C: ROUNDING UP OF THE UNIT DIGIT OF AMOUNT = 0 to 9

D: ROUNDING DOWN OF THE UNIT DIGIT OF AMOUNT = 0 to 9

Example) CD=00:COMMON DESTINATION  
82: SWITZERLAND  
82: NETHERLAND  
54: NORWAY

Item C and D must be handled as a pair. Its action is as follow.

Case of C=0 :

Unit Digit of Amount < or = Value of (D) → Rounding Down

Value of (D) < or = Unit Digit of Amount → Rounding to 5

Other cases :

Unit Digit of Amount < or = Value of (D) → Rounding Down

Value of (D) < Unit Digit of Amount < Value of (C) → Rounding to 5

Value of (C) < or = Unit Digit of Amount → Rounding Up

E: APPLICATION OF ROUNDING	E
ITEM & PAYMENT	0
PAYMENT	1

F: LIMIT ON THE LEAST SIGNIFICANT DIGIT IN ENTERING THE AMOUNT OF ITEM	F
ARBITRARY	0
0 ONLY	1
0 AND 5 ONLY	2

G: DIFFERENCE MEMORY (DIFFERENCE BETWEEN BEFORE-ROUNDING AND AFTER-ROUNDING)	G
No	0
Yes	1

H: LIMIT ON THE LEAST SIGNIFICANT DIGIT IN ENTERING THE AMOUNT OF PAYMENT	H
ARBITRARY	0
0 ONLY	1
0 AND 5 ONLY	2

**[JOB#68] OTHERS8 PROGRAMMING -- ABCDEFGH --**

MRS = 00000000

MRS = 10000000 (only for SCA)

A: Printing of split pricing entry	A
Normal	0
SCA format	1

B, C, D, E, F, G, H: Not used (Fixed at "0000000")

**[JOB#69] OTHERS9 PROGRAMMING -- ABCDEFGH --**

MRS = 00001000

A, B, C: Not used (Fixed at "000")

D: Rounding of foreign currency for Exchange	D
Raising to unit	0
Round off (4-DOWN, 5-UP)	1

E: TAX SYSTEM	E
AUTO TAX1-4	0
AUTO VAT1-4	1
MANUAL VAT1-4	2
MANUAL VAT1	3
MANUAL TAX1-4	4
AUTO VAT1 & AUTO TAX 2-4	5

F: TAX PRINTING WHEN TAXABLE SUBTOTAL IS ZERO	F
No	0
Yes	1

G: TAX PRINTING WHEN TAX IS ZERO	G
Yes	0
No	1

H: ROUNDING SYSTEM	H
NORMAL	0
SWEDEN	1
DENMARK	2

**[JOB#70] OTHERS10 PROGRAMMING -- ABCDEFGH --**

MRS = 00000000

A: SPLIT PRICING COUNRING	A
Quantity	0
Package	1

B, C, D, E, F, G, Not used (Fixed at "0000000")  
H:

**[JOB#71] GT2 PROGRAMMING -- XXXXXXXXXXXXXXX --**

MRS = 0000000000000

XXXXXXXXXXXX: GT (13digits)

**[JOB#72] GT3 PROGRAMMING --- XXXXXXXXXXXXXXX --**

MRS = 0000000000000

XXXXXXXXXXXX: GT (13digits)

**[JOB#76] GENERAL Z1 RESET REPORT COUNTER -- XXXX --**

MRS = 0000

XXXX: RESET COUNTER (4digits)

**[JOB#77] GENERAL Z2 RESET REPORT COUNTER -- XXXX --**

MRS = 0000

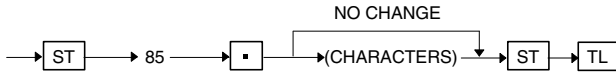
XXXX: RESET COUNTER (4digits)

**[JOB#86] TRAINING CLERK PROGRAMMING -- XX --**

MRS = 0

X: CLERK No. = 0 (INHIBIT), 1 to 25

## 12) DOMESTIC CURRENCY SYMBOL PROGRAMMING



(CHARACTERS): CHARACTER (Max. 4 Characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.

THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

YYY → [00] KEY

YYY: CHARACTER CODE (3 DIGITS)

(or [000] KEY ACCORDING TO PGM PRESET)

MRS = \_\_\* ( \_: space code)

This symbol is printed with (+) amount of domestic currency.

The programmed characters is printed at left side of amount.

Ex) Case of " DM ":

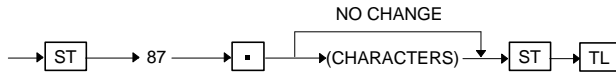
```
| DEPT.01      DM1.00 |
                ↑
            Programmed symbol
```

If some space characters are programmed at the left side of symbol (like " \*"), they are not counted as the number of character of the currency symbol. (In case of " DM", the number of character is 2.)

Ex) Case of " DM": (The currency symbol means "DM")

```
|AAAADPARTMENT01_DM10000.00 |
                            ↑
                    Programmed symbol
```

## 13) TRAINING MODE TEXT PROGRAMMING



(CHARACTERS): CHARACTER (Max. 12 characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.

THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

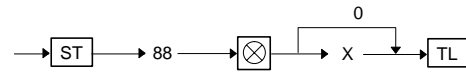
YYY → [00] KEY

YYY: CHARACTER CODE (3 DIGITS)

(or [000] KEY ACCORDING TO PGM PRESET)

MRS = \*\*TRAINING\*\*

## 14) TEXT CHANGING (TO DEFAULT TEXT)



X: 0 = English text

1 = German text

2 = French text

3 = Spanish text

MRS = 0

When this job is executed, below texts are set as default data.

(a) Function text

(b) Each message text (LOGO, etc..)

(c) CLERK name

HEADER		
05/02/2001 12:34PM	01	DATE/TIME/CLERK CODE
123456#123456	M.CLERK	MACHINE NO. /CC-NO. / CLERK NAME
*PGM*		MODE TITLE
#88	0	LANGUAGE MODE

## 15) RESETTING OF ALL COUNTER AND TOTALIZER

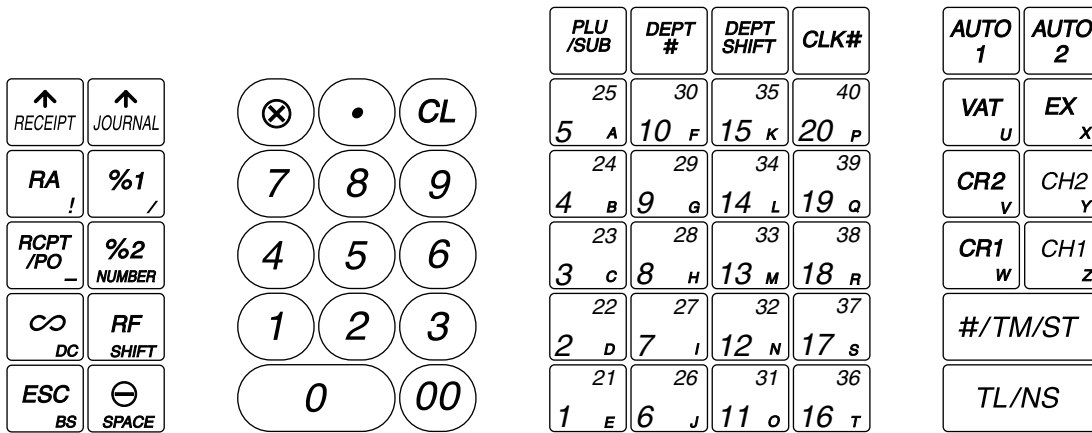


All counter, totalizer, all GTs, and all Z counter are reset.

HEADER		
05/02/2001 12:34PM	01	DATE/TIME/CLERK CODE
123456#123456	M.CLERK	MACHINE NO. /CC-NO. / CLERK NAME
*PGM*		MODE TITLE
#89		JOB#

# 4. CHARACTER ASSIGNMENT METHOD

## PROGRAMMING KEY LAYOUT



Note: The small characters on the bottom or lower right in each key indicates functions or characters which can be used for character entries for text programming.

## THE METHOD OF CHARACTER ENTRY AT TEXT PROGRAMMING

The character can be entered by using character key or character code.

When the character can be entered in the text programming, the key layout is changed from "Function and DEPT key layout" to "CHARACTER KEY LAYOUT".

In "CHARACTER KEY LAYOUT", any key except the Numeric keys and [CL], [SBTL], [TL] are assigned either the character or the control key for character entry.

Any character can be entered by following method.

### By character key:

- [SHIFT] (CHARACTER KEY) : Characters on Character key layout.
- [NUMBER] (NUMERIC KEY) : Numeric character ("0", "1", . . . , "9")

### By Numeric key (Character Code) :

- xxx — [00] —
- xxx: Character Code

### (The list of Control Key)

Key	Action
SHIFT	Entry to shift the following character key. (ex. [SHIFT] → [A]: Enter the character "a".)
NUMBER	Entry the following numeric key as the number character. (ex. [NUMBER] → [1]: Enter the character "1".)
(DC)	Double size character: Change the following character to the double size character.
BS	Back Space: Delete the last character.

The status of [SHIFT], [NUMBER] and [DC] are keeping until pushing same control key in each text entry. (STAY DOWN type)

And the corresponding indication is lighted up on the display while their status is "on".

### (Example)

- [SHIFT] → [A] [B] [C] → [SHIFT] → [A] [B] [C] : Text "abcABC".
- [NUMBER] → [1] [2] [3] → [NUMBER] → [1] [2] [3] : Text "123" and numeric number 123.
- [DC] → [A] [B] [C] → [(DC)] → [A] [B] [C] : Text "ABCABC".

<Character Code Table for text programming> Printer

CODE	CHARACTER
001	á
002	â
003	ê
004	î
005	ì
006	í
007	ô
008	ó
009	û
010	ú
011	œ
012	Û
013	Ú
014	ö
015	ó
016	Λ
017	Ψ
018	Γ
019	∞
020	Ω
021	Δ
022	Θ
023	Ξ
024	Π
025	Σ
026	Υ
027	Φ
028	Ú
029	Ú
030	Ó
031	Ó
032	(Space)
033	!
034	"
035	#
036	\$
037	%
038	&
039	'
040	(
041	)
042	*
043	+
044	,
045	-
046	.
047	/
048	0

CODE	CHARACTER
049	1
050	2
051	3
052	4
053	5
054	6
055	7
056	8
057	9
058	:
059	;
060	<
061	=
062	>
063	?
064	@
065	A
066	B
067	C
068	D
069	E
070	F
071	G
072	H
073	I
074	J
075	K
076	L
077	M
078	N
079	O
080	P
081	Q
082	R
083	S
084	T
085	U
086	V
087	W
088	X
089	Y
090	Z
091	Ä
092	Ö
093	Ü
094	^
095	_
096	`
097	a

CODE	CHARACTER
098	b
099	c
100	d
101	e
102	f
103	g
104	h
105	i
106	j
107	k
108	l
109	m
110	n
111	o
112	p
113	q
114	r
115	s
116	t
117	u
118	v
119	w
120	x
121	y
122	z
123	{
124	
125	}
126	ß
127	ç
128	!!
129	1
130	2
131	3
132	4
133	1/2
134	F <sub>T</sub>
135	←
136	→
137	∞
138	∞
139	▶
140	◀
141	F
142	T
143	↓
144	ç
145	°
146	ı

CODE	CHARACTER
147	ù
148	à
149	Æ
150	φ
151	Å
152	π
153	é
154	è
155	Pt
156	i
157	Ñ
158	Õ
159	£
160	¥
161	。
162	Γ
163	J
164	、
165	.
166	T <sub>1</sub>
167	T <sub>2</sub>
168	T <sub>3</sub>
169	T <sub>4</sub>
170	1 <sub>2</sub>
171	1 <sub>3</sub>
172	1 <sub>4</sub>
173	2 <sub>3</sub>
174	2 <sub>4</sub>
175	3 <sub>4</sub>
176	日
177	Á
178	Í
179	
180	Ā
181	ā
182	Ē
183	ē
184	Ī
185	ī
186	Ū
187	ū
188	Ŋ
189	ŋ
190	Č
191	Š
192	ç
193	İ
194	Ğ
195	Ş

CODE	CHARACTER
196	Ğ
197	ğ
198	Ɔ
199	Ɔ
200	Ł
201	ł
202	Ž
203	ž
204	Đ
205	đ
206	Ć
207	ć
208	€
209	˘
210	ě
211	š
212	č
213	ž
214	ý
215	ú
216	ň
217	ˇ
218	˙
219	ř
220	
221	
222	
223	
224	*
225	§
226	Ø
227	^
228	↑
229	]
230	[
231	ˆ
232	ä
233	ö
234	ü
235	æ
236	å
237	É
238	ñ
253	(DC)

(DC): Double Code

: ECR Control Character (Not used for text)

<Character Code Table for text programming> for DISPLAY

CODE	CHARACTER	CODE	CHARACTER	CODE	CHARACTER	CODE	CHARACTER	CODE	CHARACTER
001	á	049	1	098	b	147	ù	196	(Space)
002	â	050	2	099	c	148	à	197	(Space)
003	ê	051	3	100	d	149	Æ	198	(Space)
004	î	052	4	101	e	150	φ	199	(Space)
005	ï	053	5	102	f	151	Å	200	(Space)
006	(Space)	054	6	103	g	152	□	201	(Space)
007	ô	055	7	104	h	153	é	202	ž
008	ó	056	8	105	i	154	è	203	(Space)
009	û	057	9	106	j	155	Pt	204	(Space)
010	ú	058	:	107	k	156	ı	205	(Space)
011	(Space)	059	;	108	l	157	Ñ	206	ć
012	ű	060	<	109	m	158	Õ	207	€
013	ú	061	=	110	n	159	(Space)	208	P
014	ö	062	>	111	o	160	¥	209	(Space)
015	ó	063	?	112	p	161	.	210	ě
016	Λ	064	@	113	q	162	[	211	š
017	Ψ	065	A	114	r	163	]	212	č
018	Γ	066	B	115	s	164	,	213	ž
019	(Space)	067	C	116	t	165	(Space)	214	ý
020	Ω	068	D	117	u	166	(Space)	215	ú
021	Δ	069	E	118	v	167	(Space)	216	ň
022	Θ	070	F	119	w	168	(Space)	217	˘
023	Ξ	071	G	120	x	169	(Space)	218	(Space)
024	Π	072	H	121	y	170	(Space)	219	ř
025	Σ	073	I	122	z	171	(Space)	220	(Space)
026	Υ	074	J	123	{	172	(Space)	221	(Space)
027	Φ	075	K	124		173	(Space)	222	(Space)
028	Ú	076	L	125	}	174	(Space)	223	(Space)
029	Ú	077	M	126	β	175	(Space)	224	*
030	Ő	078	N	127	¢	176	(Space)	225	(Space)
031	Ó	079	O	128	!	177	Á	226	∅
032	(Space)	080	P	129	1	178	(Space)	227	^
033	!	081	Q	130	2	179	(Space)	228	(Space)
034	"	082	R	131	3	180	(Space)	229	]
035	#	083	S	132	4	181	(Space)	230	[
036	\$	084	T	133	(Space)	182	(Space)	231	(Space)
037	%	085	U	134	(Space)	183	(Space)	232	ä
038	&	086	V	135	←	184	(Space)	233	ö
039	'	087	W	136	→	185	(Space)	234	ü
040	(	088	X	137	(Space)	186	(Space)	235	æ
041	)	089	Y	138	(Space)	187	(Space)	236	å
042	*	090	Z	139	▶	188	(Space)	237	É
043	+	091	Ä	140	◀	189	(Space)	238	ñ
044	,	092	Ö	141	F	190	Č		
045	-	093	Ü	142	T	191	Š		
046	.	094	^	143	(Space)	192	ç		
047	/	095	_	144	ç	193	İ		
048	0	096	`	145	•	194	(Space)		
		097	a	146	ı	195	Ş	253	(DC)

(DC): Double Code

□ : ECR Control Character (Not used for text)



## 5. EASY PROGRAMMING

Easy programming roughly consists of the following two types of programming.

1. Direct key or code entry type.
2. Guidance message type on usual programming.

Reports that show the contents of individual programming can be printed.

### [PURPOSE]

It aims to be able to program easily by using the guidance messages by the easy programming.

### [OPERATION]

Perform the programming to enter the parameter according to the guidance message.

The guidance message is displayed on the LCD-display every time.

It shows the information related the entry data at each step.

Each programming data and the text data is entered by using a key-board.

It is used some key as special key to enter each data at the Easy Programming operation.

There are follows.

	KEY	CONTENTS OF USE
a	Numerical key (0, 1 to 9)	Used for numerical number entry.
b	Double-zero key ([00])	Used for parameter entry and character code entry.
c	Clear key ([CL])	Used for cancel entry.
d	Point key ([.])	Used for decimal point entry and right moving entry (As right cursor key).
e	Multiplication key ([X])	Used for left moving entry (As left cursor key).
f	Subtotal key ([ST])	Used for data decision entry.
g	Finalization key ([TL])	Used for programming termination entry.

## 1. DIRECT KEY OR CODE ENTRY TYPE

### <Programming method>

At PGM mode, it becomes set up mode, as it pushes a key of a direct key or code entry that it wants to set up.

### For example:

Push [DEPT1] key, if you want to set up DEPT1 items.

Push [%1] key, if you want to set up %1 item.

After that, every time it pushes [ST] key, a set up item changes with price, text, programming ...

To change a programming content, it changes it using a numeric key.

As additional way, [00] key can be used as a incremental while an indicator lights on.

i.e. By pushing [00] key for a digit of parameters, a figure changes 0 → 1 → 2 → ...

The data is changed by pushing [ST] key, and the display shows a content of the next item.

After that, the operator program the next set up item.

If a set up ends, it pushes [TL] key.

It shows the list of programmable data by this method ("Direct key entry type") on the next page.

It shows every set up item and example of display to the following.

### <KEY SEQUENCE>

#### <DEPT>

Function	key	Step	Programmable data	Entry type	Default (MRS)
DEPT	[DEPTn] or DEPT code + [DEPT#]	1	Text	(CHARACTER)	DEPT. xx
		2	Price	(NUMERIC)	0
		3	Entry type	(TOGGLE)	OPEN
		4	Selection of TAX1	(TOGGLE)	(*1)
		5	Selection of TAX2	(TOGGLE)	(*1)
		6	Selection of TAX3	(TOGGLE)	(*1)
		7	Selection of TAX4	(TOGGLE)	(*1)
		8	Registration type	(TOGGLE)	NORMAL
		9	Group no.	(NUMERIC)	(*1) (*2)
		10	Limitation digits	(NUMERIC)	8

(\*1) DEPT01 - 10 : VAT 1 / Group 1  
 DEPT11 - 20 : VAT 2 / Group 1  
 DEPT21 : VAT 1 / Group 10  
 DEPT22 - 99 : VAT 1 / Group 1

(\*2) Group 1-9 : (+) department  
 Group 10 : (-) department  
 Group 11 : (+) Hash department  
 Group 12 : (-) Hash department

#### <PLU>

Function	key	Step	Programmable data	Entry type	Default (MRS)
PLU	PLUn or PLU code + [PLU/ SUB]	1	Text	(CHARACTER)	PLU. xxxx
		2	Price	(NUMERIC)	0
		3	Dept code	(NUMERIC)	01
		4	Sign	(TOGGLE)	(+)
		5	Type	(TOGGLE)	PLU

<(-)>

Function	key	Step	Programmable data	Entry type	Default (MRS)
(-)	(-)	1	Text	(CHARACTER)	(*)
		2	Unit price	(NUMERIC)	0
		3	Sign	(TOGGLE)	(-)
		4	Item	(TOGGLE)	Enable
		5	Subtotal	(TOGGLE)	Enable
		6	Limitation digits	(NUMERIC)	8

(\*) Please refer function list. (Programming of function text)

<%n>

Function	key	Step	Programmable data	Entry type	Default (MRS)
%n	%n	1	Text	(CHARACTER)	(*)
		2	Rate	(NUMERIC)	0.00
		3	Sign	(TOGGLE)	(-)
		4	Item	(TOGGLE)	Enable
		5	Subtotal	(TOGGLE)	Enable
		6	% RATE halo	(NUMERIC)	100.00

(\*) Please refer function list. (Programming of function text)

<EXCHANGE>

Function	key	Step	Programmable data	Entry type	Default (MRS)
EX	EX	1	Text	(CHARACTER)	(*)
		2	Rate	(NUMERIC)	0.000000
		3	OPEN RATE ENTRY	(TOGGLE)	Enable
		4	PRESET RATE ENTRY	(TOGGLE)	Enable
		5	TAB	(NUMERIC)	2

(\*) Please refer function list. (Programming of function text)

<RA, PO, CH1, CH2, CR1, CR2>

Function	key	Step	Programmable data	Entry type	Default (MRS)
RA PO CH1 CH2 CR1 CR2	RA PO CH1 CH2 CR1 CR2	1	Text	(CHARACTER)	(*1)
		2	Footer print on receipt	(TOGGLE)	NO
		3	Entry of amount tendered	(TOGGLE)	(*2)
		4	Limitation digits	(NUMERIC)	(*3)

(\*1) Please refer function list. (Programming of function text)

(\*2) Noncompulsory (Cash, check), inhibit (Credit)

(\*3) 8 (CA, CH1, CH2, CR1, CR2), 9 (RA, PO)

It shows every set up item and example of display to the following.

<The details of "ENTRY TYPE">

As it pushes [ST], a set up item advances the next step.

As it pushes [TL], and the set up data writes to the memory, and a set up of the function ends.

Set up as it pushes other DIRECT PLU KEY on the way (exclude text programming), and the set up data writes to the memory, a set up of the next setting starts.

The guidance message is displayed at each programming step.

The following guidance messages are used for easy programming operation.

<Programming for DEPT>

KEY ENTRY	OPERATER 1234567890123456	NOTE
[DPT1]	DEPT. 01 01 0.00	DEPT1 TEXT DEPT1 CODE
	ENTER [00] KEY 01 0.00	A text changes to ENTER [00]-KEY.
->[00]	ENTER TEXT 01 0.00	Message of "ENTER TEXT" is displayed.
	DEPT. 01 01 068	Current DEPT1 text is displayed. Then the cursor is blinking. (*)
->066	DEPT. 01 01 066	Text code is inputted.
->[00]	DEPT. 01 01 069	If [00] key is entered and inputted text is addressed. Then the cursor is blinking.
->EER (_ is set space)	BEER _ 01 032	text
->[ST]	PRICE 01 123	Guidance message Current setting is displayed.
->200	PRICE 01 200	
->[ST]	DEPT ENTRY TYPE 01 OPEN & PRESET	Guidance message Current setting is displayed.
->[00]	DEPT ENTRY TYPE 01 INHIBITED	
->[00]	DEPT ENTRY TYPE 01 OPEN	
->[00]	DEPT ENTRY TYPE 01 PRESET	
->[00]	DEPT ENTRY TYPE 01 OPEN	
->[ST]	SELECT OF TAX1 TAX1 YES	Guidance message Current setting is displayed.
->[00]	SELECT OF TAX1 TAX1 NO	Guidance message Current setting is displayed.
->[ST]	SELECT OF TAX2 TAX2 NO	Guidance message
->[00]	SELECT OF TAX2 TAX2 YES	Guidance message
->[ST]	SELECT OF TAX3 TAX3 NO	Guidance message

KEY ENTRY	OPERATER 1234567890123456	NOTE
->[ST]	SELECT OF TAX4 TAX4 NO	Guidance message
->[ST]	REGIST. TYPE 01 NORMAL	Guidance message Current setting is displayed.
->[00]	REGIST. TYPE 01 SICS	
->[ST]	GROUP NO. 01 01	Guidance message
->11	GROUP NO. 01 11	Guidance message
->[ST]	LIMIT DIGITS 01 8	Guidance message Current setting is displayed.
->7	LIMIT DIGITS 01 7	Guidance message
->[ST]	DEPT. 02 02 0.00	DEPT2 TEXT DEPT2 CODE
	ENTER [00] KEY 02 0.00	RETURN TO 1'st STEP
->[TL]	PGM 0.00	DEPT1 SET UP TERMINATE

(\*) In case of text setting, you can use [X] or [.] key.  
If you push [X] key, the cursor moves to the left. And if you push [.] key, the cursor moves to the right.

#### <CANCEL OPERATION>

KEY ENTRY	OPERATER 1234567890123456	NOTE
[DPT5]	DEPT. 05 05 0.00	DEPT5 TEXT DEPT CODE
	ENTER [00] KEY 05 0.00	ENTER [00]-KEY TO CHANGE TEXT
->[00]	ENTER TEXT 05 0.00	Message of "ENTER TEXT" is displayed.
	DEPT. 05 05 068	
->DRINK _	DRINK _ 05 032	
->[ST]	PRICE 05 100	Guidance message
->200	PRICE 05 200	
->[ST]	DEPT ENTRY TYPE 01 OPEN	PRICE IS DECIDED
->[CL]	DEPT ENTRY TYPE 01 OPEN	
->[CL]	PGM 0.00	DEPT5 SET UP TERMINATE

In this case, price (200) and text (DRINK) are not written to the preset memory.

#### <Programming for PLU>

KEY ENTRY	OPERATER 1234567890123456	NOTE
[PLU1]	PLU. 0001 0001 0.00	PLU1 TEXT PLU CODE
	ENTER [00] KEY 0001 0.00	
->[00]	ENTER TEXT 0001 0.00	Message of "ENTER TEXT" is displayed.
	PLU. 0001 0001 080	Current PLU1 text is displayed. Then the cursor is blinking. (*)
->066	PLU. 0001 0001 066	Text code is inputted.
->[00]	PLU. 0001 0001 076	If [00] key is entered and inputted text is addressed. Then the cursor is blinking.
->EER _ (_ is set space)	BEER _ 0001 032	text
->[ST]	PRICE 0001 100	Guidance message Current setting is displayed.
->200	PRICE 0001 200	Guidance message
->[ST]	ENTER DEPT# 0001 01	Guidance message/PLU code
->02	ENTER DEPT# 0001 02	Inputted DEPT no. If you want to set PLU delete. Please set 0.
->[ST]	SIGN 0001 (+)	Guidance message Current setting is displayed.
->[00]	SIGN 0001 (-)	
->[00]	SIGN 0001 (+)	
->[ST]	ENTER PLU TYPE 0001 PLU	Guidance message Current setting is displayed.
->[00]	ENTER PLU TYPE 0001 SUBDEPT	
->[00]	ENTER PLU TYPE 0001 PLU	
->[ST]	PLU. 0002 0002 0.00	PLU2 TEXT / PLU CODE
	ENTER [00] KEY 0002 0.00	RETURN TO 1'st STEP
->[TL]	PGM 0.00	PLU1 SET UP TERMINATE

(\*) In case of text setting, you can use [X] or [.] key.  
If you push [X] key, the cursor moves to the left. And if you push [.] key, the cursor moves to the right.

<PROGRAMMING FOR (-)>

KEY ENTRY	OPERATER 1234567890123456	NOTE			
[(-)]	<table border="1"> <tr> <td>(-) PROGRAMMING</td> <td>XX</td> <td>0.00</td> </tr> </table>	(-) PROGRAMMING	XX	0.00	(-) PROGRAMMING Function no.
(-) PROGRAMMING	XX	0.00			
	<table border="1"> <tr> <td>ENTER [00] KEY</td> <td>XX</td> <td>0.00</td> </tr> </table>	ENTER [00] KEY	XX	0.00	Function no.
ENTER [00] KEY	XX	0.00			
->[00]	<table border="1"> <tr> <td>ENTER TEXT</td> <td>XX</td> <td>0.00</td> </tr> </table>	ENTER TEXT	XX	0.00	Function no.
ENTER TEXT	XX	0.00			
	<table border="1"> <tr> <td>= (= =)</td> <td>XX</td> <td>253</td> </tr> </table>	= (= =)	XX	253	Current (-) text is displayed. Function no.
= (= =)	XX	253			
->[ST]	<table border="1"> <tr> <td>ENTER AMOUNT</td> <td>XX</td> <td>0</td> </tr> </table>	ENTER AMOUNT	XX	0	Message of "ENTER AMOUNT" is displayed.
ENTER AMOUNT	XX	0			
->200	<table border="1"> <tr> <td>ENTER AMOUNT</td> <td>XX</td> <td>200</td> </tr> </table>	ENTER AMOUNT	XX	200	
ENTER AMOUNT	XX	200			
->[ST]	<table border="1"> <tr> <td>SIGN</td> <td>XX</td> <td>(-)</td> </tr> </table>	SIGN	XX	(-)	Guidance message
SIGN	XX	(-)			
->[00]	<table border="1"> <tr> <td>SIGN</td> <td>XX</td> <td>(+)</td> </tr> </table>	SIGN	XX	(+)	
SIGN	XX	(+)			
->[ST]	<table border="1"> <tr> <td>ENTRY FOR ITEM</td> <td>XX</td> <td>ITEM ENABLE</td> </tr> </table>	ENTRY FOR ITEM	XX	ITEM ENABLE	Guidance message
ENTRY FOR ITEM	XX	ITEM ENABLE			
->[00]	<table border="1"> <tr> <td>ENTRY FOR ITEM</td> <td>XX</td> <td>ITEM DISABLE</td> </tr> </table>	ENTRY FOR ITEM	XX	ITEM DISABLE	
ENTRY FOR ITEM	XX	ITEM DISABLE			
->[ST]	<table border="1"> <tr> <td>ENTRY FOR SBTL</td> <td>XX</td> <td>SBTL DISABLE</td> </tr> </table>	ENTRY FOR SBTL	XX	SBTL DISABLE	Guidance message
ENTRY FOR SBTL	XX	SBTL DISABLE			
->[00]	<table border="1"> <tr> <td>ENTRY FOR SBTL</td> <td>XX</td> <td>SBTL ENABLE</td> </tr> </table>	ENTRY FOR SBTL	XX	SBTL ENABLE	
ENTRY FOR SBTL	XX	SBTL ENABLE			
->[ST]	<table border="1"> <tr> <td>LIMIT DIGITS</td> <td>XX</td> <td>8</td> </tr> </table>	LIMIT DIGITS	XX	8	Guidance message Current setting is displayed.
LIMIT DIGITS	XX	8			
->8	<table border="1"> <tr> <td>LIMIT DIGITS</td> <td>XX</td> <td>8</td> </tr> </table>	LIMIT DIGITS	XX	8	
LIMIT DIGITS	XX	8			
[ST]	<table border="1"> <tr> <td>ENTER [TL / NS] KEY</td> <td></td> <td>0.00</td> </tr> </table>	ENTER [TL / NS] KEY		0.00	
ENTER [TL / NS] KEY		0.00			

<PROGRAMMING FOR %>

KEY ENTRY	OPERATER 1234567890123456	NOTE			
[%1]	<table border="1"> <tr> <td>%1 PROGRAMMING</td> <td>XX</td> <td>0.00</td> </tr> </table>	%1 PROGRAMMING	XX	0.00	% PROGRAMMING
%1 PROGRAMMING	XX	0.00			
	<table border="1"> <tr> <td>ENTER [00] KEY</td> <td>XX</td> <td>0.00</td> </tr> </table>	ENTER [00] KEY	XX	0.00	
ENTER [00] KEY	XX	0.00			
->[00]	<table border="1"> <tr> <td>ENTER TEXT</td> <td>XX</td> <td>0.00</td> </tr> </table>	ENTER TEXT	XX	0.00	Message of "ENTER TEXT" is displayed.
ENTER TEXT	XX	0.00			
	<table border="1"> <tr> <td>=%=1=</td> <td>XX</td> <td>253</td> </tr> </table>	=%=1=	XX	253	Current % text is displayed. Then the cursor is blinking.
=%=1=	XX	253			
->[ST]	<table border="1"> <tr> <td>ENTER RATE</td> <td>XX</td> <td>0.00</td> </tr> </table>	ENTER RATE	XX	0.00	Message of "ENTER RATE" is displayed.
ENTER RATE	XX	0.00			
->12.34	<table border="1"> <tr> <td>ENTER RATE</td> <td>XX</td> <td>12.34</td> </tr> </table>	ENTER RATE	XX	12.34	
ENTER RATE	XX	12.34			

KEY ENTRY	OPERATER 1234567890123456	NOTE			
->[ST]	<table border="1"> <tr> <td>SIGN</td> <td>XX</td> <td>(-)</td> </tr> </table>	SIGN	XX	(-)	Guidance message
SIGN	XX	(-)			
->[00]	<table border="1"> <tr> <td>SIGN</td> <td>XX</td> <td>(+)</td> </tr> </table>	SIGN	XX	(+)	
SIGN	XX	(+)			
->[ST]	<table border="1"> <tr> <td>ENTRY FOR ITEM</td> <td>XX</td> <td>ITEM ENABLE</td> </tr> </table>	ENTRY FOR ITEM	XX	ITEM ENABLE	Guidance message
ENTRY FOR ITEM	XX	ITEM ENABLE			
->[00]	<table border="1"> <tr> <td>ENTRY FOR ITEM</td> <td>XX</td> <td>ITEM DISABLE</td> </tr> </table>	ENTRY FOR ITEM	XX	ITEM DISABLE	
ENTRY FOR ITEM	XX	ITEM DISABLE			
->[ST]	<table border="1"> <tr> <td>ENTRY FOR SBTL</td> <td>XX</td> <td>SBTL DISABLE</td> </tr> </table>	ENTRY FOR SBTL	XX	SBTL DISABLE	Guidance message
ENTRY FOR SBTL	XX	SBTL DISABLE			
->[00]	<table border="1"> <tr> <td>ENTRY FOR SBTL</td> <td>XX</td> <td>SBTL ENABLE</td> </tr> </table>	ENTRY FOR SBTL	XX	SBTL ENABLE	
ENTRY FOR SBTL	XX	SBTL ENABLE			
->[ST]	<table border="1"> <tr> <td>% HALO PROG.</td> <td>XX</td> <td>100.00</td> </tr> </table>	% HALO PROG.	XX	100.00	Guidance message Current setting is displayed.
% HALO PROG.	XX	100.00			
->90.00	<table border="1"> <tr> <td>% HALO PROG.</td> <td>XX</td> <td>90.00</td> </tr> </table>	% HALO PROG.	XX	90.00	
% HALO PROG.	XX	90.00			
[ST]	<table border="1"> <tr> <td>%2 PROGRAMMING</td> <td>XX</td> <td>0.00</td> </tr> </table>	%2 PROGRAMMING	XX	0.00	% PROGRAMMING
%2 PROGRAMMING	XX	0.00			
	<table border="1"> <tr> <td>ENTER [00] KEY</td> <td>XX</td> <td>0.00</td> </tr> </table>	ENTER [00] KEY	XX	0.00	
ENTER [00] KEY	XX	0.00			

<PROGRAMMING FOR EXCHANGE>

KEY ENTRY	OPERATER 1234567890123456	NOTE			
[EX]	<table border="1"> <tr> <td>EXCHANGE PROG.</td> <td>XX</td> <td>0.00</td> </tr> </table>	EXCHANGE PROG.	XX	0.00	EXCHANGE PROGRAMMING
EXCHANGE PROG.	XX	0.00			
	<table border="1"> <tr> <td>ENTER [00] KEY</td> <td>XX</td> <td>0.00</td> </tr> </table>	ENTER [00] KEY	XX	0.00	
ENTER [00] KEY	XX	0.00			
->[00]	<table border="1"> <tr> <td>ENTER TEXT</td> <td>XX</td> <td>0.00</td> </tr> </table>	ENTER TEXT	XX	0.00	Message of "ENTER TEXT" is displayed.
ENTER TEXT	XX	0.00			
	<table border="1"> <tr> <td>EXCH1</td> <td>XX</td> <td>0.00</td> </tr> </table>	EXCH1	XX	0.00	Current EXCH1 text is displayed. Then the cursor is blinking.
EXCH1	XX	0.00			
->[ST]	<table border="1"> <tr> <td>ENTER EX RATE</td> <td>XX</td> <td>0.000000</td> </tr> </table>	ENTER EX RATE	XX	0.000000	Message of "ENTER EX RATE" is displayed.
ENTER EX RATE	XX	0.000000			
->123.456789	<table border="1"> <tr> <td>ENTER EX RATE</td> <td>XX</td> <td>123.456789</td> </tr> </table>	ENTER EX RATE	XX	123.456789	
ENTER EX RATE	XX	123.456789			
->[ST]	<table border="1"> <tr> <td>OPEN RATE ENTRY</td> <td>XX</td> <td>OPEN ENABLE</td> </tr> </table>	OPEN RATE ENTRY	XX	OPEN ENABLE	Guidance message
OPEN RATE ENTRY	XX	OPEN ENABLE			
->[00]	<table border="1"> <tr> <td>OPEN RATE ENTRY</td> <td>XX</td> <td>OPEN DISABLE</td> </tr> </table>	OPEN RATE ENTRY	XX	OPEN DISABLE	
OPEN RATE ENTRY	XX	OPEN DISABLE			
->[ST]	<table border="1"> <tr> <td>PRESET RATE</td> <td>XX</td> <td>PRESET ENABLE</td> </tr> </table>	PRESET RATE	XX	PRESET ENABLE	Guidance message
PRESET RATE	XX	PRESET ENABLE			
->[00]	<table border="1"> <tr> <td>PRESET RATE</td> <td></td> <td>PRESET DISABLE</td> </tr> </table>	PRESET RATE		PRESET DISABLE	
PRESET RATE		PRESET DISABLE			
->[ST]	<table border="1"> <tr> <td>TAB</td> <td>XX</td> <td>2</td> </tr> </table>	TAB	XX	2	Guidance message
TAB	XX	2			

KEY ENTRY	OPERATER 1234567890123456	NOTE
->3	TAB XX 3	
->[ST]	ENTER [TL / NS] KEY 0. 00	Guidance message

**<PROGRAMMING FOR MEDIA KEYS & FUNCTION KEYS>  
([RA], [PO], [CH1], [CH2], [CR1], [CR2])**

KEY ENTRY	OPERATER 1234567890123456	NOTE
[CH1]	CH1 PROGRAMMING XX 0. 00	CH1 PROGRAMMING (Each media or function key messages is displayed)
	ENTER [00] KEY XX 0. 00	
->[00]	ENTER TEXT XX 0. 00	Message of "ENTER TEXT" is displayed.
	CHECK1 XX 067	Current CH1 text is displayed. Then the cursor is blinking.
->[ST]	FOOTER PRINT XX NO	In case of RA/PO setting, this setting is skipped.
->[00]	FOOTER PRINT XX YES	
->[ST]	AMOUNT TENDERD XX COMPULSORY	In case of RA/PO setting, this setting is skipped.
->[00]	AMOUNT TENDERD NON COMPULSORY	In case of CR1/CR2 setting this message is "inhibit".
->[00]	AMOUNT TENDERD XX COMPULSORY	
->[ST]	LIMIT DIGITS XX 8	Guidance message
->0	LIMIT DIGITS XX 0	
->[ST]	CH2 PROGRAMMING XX 0. 00	Guidance message
->	ENTER [00] KEY XX 0. 00	Guidance message

**2. GUIDANCE MESSAGE TYPE**

**<Sample operation & display>**

**PROGRAMMING OF FNCTION TEXT**

KEY ENTRY	OPERATER 1234567890123456	NOTE
[ST] ->3	PGM 3	MODE Numeric entry.
->[*]	FUNC. TEXT PROG. 3	FUNCTION TEXT PROGRAMMING TITLE
	ENTER FUNC. NO. 0	Enter function no. Numeric entry.

KEY ENTRY	OPERATER 1234567890123456	NOTE
->4	ENTER FUNC. NO. 4	Enter function no. Numeric entry.
->[X]	=N=E=T=1 04 078	Enter next key. Numeric entry.
->DIFFER	DIFFER 04 032	Text entry. Numeric entry.
->[ST]	ENTER FUNC. NO. 0. 00	Enter function no. Numeric entry.
->[TL]	PGM 0. 00	

**PROGRAMMING OF LOGO TEXT**

KEY ENTRY	OPERATER 1234567890123456	NOTE
[ST] ->4	PGM 4	MODE Numeric entry.
->[*]	LOGO TEXT PROG. 4	LOGO TEXT PROGRAMMING TITLE
	ENTER LINE NO. 0. 00	Enter line no. Numeric entry.
->1	ENTER LINE NO. 1	Enter line no. Numeric entry.
->[X]	=S=H=A 1 032	Enter next key. Numeric entry.
->SHARP	=S=H=A=R=P= 1 032	Text entry. Numeric entry.
->[ST]	ENTER LINE NO. 0. 00	Enter line no. Numeric entry.
->[TL]	PGM 0. 00	

**PROGRAMMING OF CLERK NAME**

KEY ENTRY	OPERATER 1234567890123456	NOTE
[ST] ->5	PGM 5	MODE Numeric entry.
->[*]	CLERK NAME PROG. 5	CLERK NAME PROGRAMMING TITLE
	ENTER CLERK NO. 0. 00	Enter clerk no. Numeric entry.
->1	ENTER CLERK NO. 1	Enter clerk no. Numeric entry.
->[X]	CLERK 01 01 076	Enter next key. Numeric entry.
->TOMMY	TOMMY 01 032	Text entry. Numeric entry.
->[ST]	ENTER CLERK NO. 0. 00	Enter clerk no. Numeric entry.

KEY ENTRY	OPERATER 1234567890123456	NOTE
->[TL]	PGM 0. 00	

#### FOREIGN CURRENCY SYMBOL PROGRAMMING

KEY ENTRY	OPERATER 1234567890123456	NOTE
[ST] ->6	PGM 6	MODE Numeric entry.
->[*]	FOREIGN CURRENCY 6	FOREIGN CURRENCY SYMBOL PROGRAMMING TITLE
	Enter next key. 01 032	Numeric entry.
->\	\ 032	Text entry. Numeric entry.
->[ST]	ENTER [TL / NS] KEY 0. 00	Enter TL key. Numeric entry.
->[TL]	PGM 0. 00	

#### TAX RATE PROGRAMMING

KEY ENTRY	OPERATER 1234567890123456	NOTE
[ST] ->9	PGM 9	MODE Numeric entry.
->[X]	TAX RATE PROG. 9	TAX RATE PROGRAMMING TITLE
	ENTER TAX NO. 0. 00	Enter tax no. Numeric entry.
->1	ENTER TAX NO. 1	Enter tax no. Numeric entry.
->[X]	ENTER TAX RATE 1 0. 00	Enter tax rate. Numeric entry.
->15	ENTER TAX RATE 1 15	Text entry. Numeric entry.
->[X]	ENTER LOWER TAX 1 0. 00	Enter LOWER TAX LIMIT Numeric entry.
->10	ENTER LOWER TAX 1 10	Text entry. Numeric entry.
->[ST]	ENTER TAX NO. 0. 00	Enter next key. Numeric entry
->[TL]	PGM 0. 00	

#### CLERK CODE DEFINITION

KEY ENTRY	OPERATER 1234567890123456	NOTE
[ST] ->16	PGM 16	MODE Numeric entry.
->[X]	CLERK NO. 0. 00	CLERK CODE DEFINITION
->1	CLERK NO. 1	Numeric entry.
->[X]	CLERK CODE 01 0. 00	CLERK CODE DEFINITION
->99	CLERK CODE 01 99	Numeric entry.
->[ST]	CLERK NO. 01 99	CLERK CODE DEFINITION
->[TL]	PGM 0. 00	Enter TL KEY Numeric entry.

#### AUTO KEY PROGRAMMING

KEY ENTRY	OPERATER 1234567890123456	NOTE
[AUTO1]	AUTO KEY PROG. 1 0. 00	Auto key programming title. Numeric entry.
->[DPT1]	PGM 1 01	DEPT1 entry
->[1]	PGM 1 02	1 key entry.
->[0]	PGM 1 03	0 key entry.
->[0]	PGM 1 04	0 key entry.
->[DPT2]	PGM 1 05	DEPT2 entry
->[AUTO1]	ENTER [TL / NS] KEY 0. 00	Enter TL key. Numeric entry.
->[TL]	PGM 0. 00	

#### VARIOUS PROGRAMMING

KEY ENTRY	OPERATER 1234567890123456	NOTE
[ST] ->AB	PGM AB	MODE Numeric entry.
->[X]	GUIDANCE TEXT 0. 00	Guidance text. (*) Job No.
->(NK)	GUIDANCE TEXT NK	Guidance text. Job No. Programming data.
->[ST]	ENTER [TL / NS] KEY 0. 00	Enter TL key.
->[TL]	PGM 0. 00	

(\*) GUIDANCE TEXT

JOB-NO.	JOB TITLE	GUIDANCE TEXT 1234567890123456
1	MACHINE No.	MACHINE NO.
2	CONSECUTIVE No.	CONSECUTIVE NO.
5	FUNCTION SELECT	FUNCTION SELECT
6	PRINT FORMAT	PRINT FORMAT
7	RECEIPT PRINT FORMAT	RCPT PRT FORMAT
8	EURO FUNCTIONS	EURO FUNCTIONS
10	POWER SAVING	POWER SAVING
11	LOGO PRINTING	LOGO PRINTING
12	EURO Programming	EURO PROG.
13	The date of exchanging the between LOCAL and EURO	EURO EX DATE
14	The Time (hour only) of exchanging the currency between LOCAL and EURO	EURO EX TIME
20	SENTINEL (CID HALO)	SENTINEL AMOUNT
21	CHECK CASHING (HALO)	CHECK CASH HALO
22	CHECK CHANGE (HALO)	CHECK CHNG HALO
35	USB TIME OUT	USB TIME OUT
50	THERMAL PRINTER DENSITY CONTROL	PRINTER DENSITY
61	OTHERS1 PROGRAMMING	OTHERS1 PROG.
62	OTHERS2 PROGRAMMING	OTHERS2 PROG.
63	OTHERS3 PROGRAMMING	OTHERS3 PROG.
64	OTHERS4 PROGRAMMING	OTHERS4 PROG.
65	OTHERS5 PROGRAMMING	OTHERS5 PROG.
66	OTHERS6 PROGRAMMING	OTHERS6 PROG.
67	OTHERS7 PROGRAMMING	OTHERS7 PROG.
68	OTHERS8 PROGRAMMING	OTHERS8 PROG.
69	OTHERS9 PROGRAMMING	OTHERS9 PROG.
70	OTHERS10 PROGRAMMING	OTHERS10 PROG.
71	GT2 PROGRAMMING	GT2 PROG.
72	GT3 PROGRAMMING	GT3 PROG.
76	GENERAL Z1 RESET REPORT COUNTER	Z1RESET COUNTER
77	GENERAL Z2 RESET REPORT COUNTER	Z2RESET COUNTER
86	TRAINING CLERK PROGRAMMING	TRAINING CLERK

**DOMESTIC CURRENCY SYMBOL PROGRAMMING**

KEY ENTRY	OPERATER 1234567890123456	NOTE
[ST] ->85	PGM 85	MODE Numeric entry.
->[.]	DOM. CURRENCY 85.	DOMESTIC CURRENCY SYMBOL . PROGRAMMING TITLE.
->	_ * 032	
->224 ->[00]	*_ * 032	Guidance text. DIGITS
->[ST]	ENTER [TL/ NS] KEY 0. 00	Enter TL key.
->[TL]	PGM 0. 00	

**TRAINING MODE TEXT PROGRAMMING**

KEY ENTRY	OPERATER 1234567890123456	NOTE
[ST] ->87	PGM 87	MODE Numeric entry.
->[.]	TRAINING TEXT 87.	TRAINING MODE TEXT PRO- GRAMMING In a moment, display for text programming will change.
->	**TRAINING** 042	CHARACTER
->TRAINING	TRAINING 032	
->[ST]	ENTER [TL/ NS] KEY 0. 00	Enter TL key.
->[TL]	PGM 0. 00	

**TEXT CHANGING (To Default text)**

KEY ENTRY	OPERATER 1234567890123456	NOTE
[ST] ->88	PGM 88	MODE Numeric entry.
->[X]	LANGUAGE CHANGE 88	TEXT CHANGING (To default text). TITLE
->1	LANGUAGE CHANGE 1	Text no.
->[TL]	VIELEN DANK 1	In English "THANK YOU".
	PGM 0. 00	

**Resetting of all counter and totalizer**

KEY ENTRY	OPERATER 1234567890123456	NOTE
[ST] ->89	PGM 89	MODE Numeric entry.
->[X]	MEMORY RESETT ING 89	Resetting of all counter and totalizer TITLE.
->[TL]	PGM 0. 00	

## CHAPTER 3. OP X/Z, X1/Z1, X2/Z2 MODE

In general, the following sales reports are available:

- 1) OP X/Z reports (individual clerk reports)
- 2) X1/Z1 reports (Daily sales total X and Z reports)
- 3) X2/Z2 reports (Periodic total X and Z reports)
- 4) Flash-read reports (Display sales amount)

In addition to the above reports that are to be used, reports for checking the program are also available.

### [Purpose]

The above reports are each used to check sales data. The standard purposes of taking these reports are as follows:

OP X/Z reports: These reports are taken by operators in order to report their own sales data.

X1/Z1 reports: These reports are taken by the supervisor or manager in order to check and report daily sales totals at that point.

X2/Z2 reports: These reports are taken by the owners or manager in order to check and report periodic (weekly or monthly) totals.

Flash-read: These reports are taken by the owner or manager in order to check and display sales totals at that point.

### [Operation]

In the table below those reports marked with a circle "O" can be executed.

#### PRINTING REPORT

REPORT NAME	KEY ENTRY	MODE						DATA FOR READING	
		OPX/Z		X1/Z1		X2/Z2			
		X	Z	X1	Z1	X2	Z2		
GENERAL	[TL/NS]	–	–	O	O	O	O		*1
DEPARTMENT	[DEPT#]	–	–	O	–	O	–		
DEPT IND. GROUP	NK → [x] → [DEPT#]	–	–	O	–	O	–	GROUP NO.	
DEPT GROUP TOTAL	[0] → [x] → [DEPT#]	–	–	O	–	O	–		
PLU BY RANGE	[PLU]	–	–	O	O	O	O	PLU CODE	*1, *2
PLU BY DEPT	NK → [DEPT SHIFT] → [PLU]	–	–	O	–	O	–	DEPT. CODE	
TRANSACTION	[1] → [TL/NS]	–	–	O	–	O	–		
TL-ID	[2] → [TL/NS]	–	–	O	–	O	–		
CLERK (ALL)	[CLK#]	–	–	O	O	O	O		*1
CLERK (INDIVISUAL)	[CLK#]	O	O	–	–	–	–		*1, *3
HOURLY (ALL)	[#/TM/ST]	–	–	O	O	–	–		*1
HOURLY (RANGE)	[#/TM/ST]	–	–	O	–	–	–	TIME (HOUR)	*1, *5
DAILY NET	[#/TM/ST]	–	–	–	–	O	O		*1

#### FLASH READING REPORT

REPORT NAME	KEY ENTRY	MODE						DATA FOR READING	
		OPX/Z		X1/Z1		X2/Z2			
		X	Z	X1	Z1	X2	Z2		
DEPARTMENT	[DPTn] or [DEPT SHIFT] → [DPTn] or NK → [DEPT#]	O	–	–	–	–	–	DEPT CODE	*4
CID	[X]	O	–	–	–	–	–		*4
SALES TOTAL	[TL/NS]	O	–	–	–	–	–		*4

#### OTHERS OPERATION

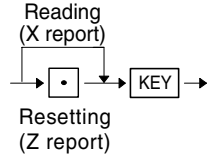
REPORT NAME	JOB#	MODE						DATA FOR READING	
		OPX/Z		X1/Z1		X2/Z2			
		X	Z	X1	Z1	X2	Z2		
EURO CHARGE	800	–	–	–	–	O	O		*6



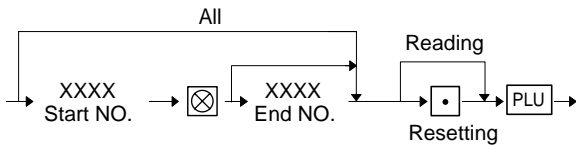
MODE: X : Daily operator X report Z : Daily operator Z report  
 X1 : Daily X report Z1 : Daily Z report  
 X2 : Periodic X report Z2 : Periodic Z report  
 (X report): The corresponding data is held in the ECR.  
 (Z report): The corresponding data is cleared in the ECR.

- Stop of printing reports (Report cancel function):  
 This ECR has the function of report stopping for PLU report.

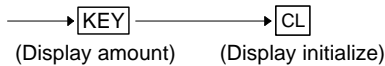
\*1 To read respective reports, it is necessary to follow the procedure below.



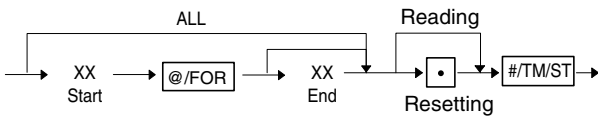
\*2 PLU code range can be specified by entering the start and end numbers according to the following procedure.  
 When specifying a single PLU code, the start number has only to be entered.



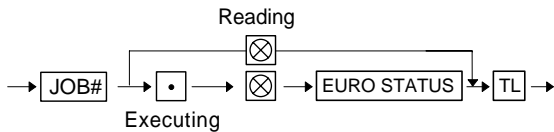
- \*3 The clerk code does not need to enter at the OPX/Z mode. In OPX/Z mode, it is issued the report of the assigned clerk.
- \*4 Reading display only.  
 The displayed amount can be cleared by [CL] key..



\*5 Hourly range can be specified by entering the start and end hour according to the following procedure.  
 When specifying a single hour, the start hour has only to be entered.



\*6 To read respective contents, it is necessary to follow the procedure below.



**[Action]**

Individual counters for the following Z reports are incremented when those reports are printed.

- 1) General daily total report (Z1)
- 2) General periodic total report (Z2)

**[Additional function]**

(1) Overflow mark

If the amount or quantity in any totalizer other than GT to be printed on X or Z reports exceeds a programmed limit, the indication mark (overflow mark) is printed for the totalizer concerned.  
 The overflow mark may be printed even if a totalizer does not reach the maximum amount. This occurs, for example, when the amount or quantity in the totalizer gets smaller than the maximum amount due to the entry of a negative amount after the overflowing of the totalizer. This means that when the totalizer overflows once, the overflow mark (for example, "!!") is printed.

(2) MODE TITLE

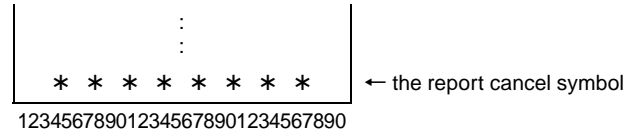
Each report prints a MODE TITLE at a header of report.  
 The Report Titles are as follows.

OPX report	*OPX*
OPZ report	*OPZ*
X1 report	*X 1*
Z1 report	*Z 1*
X2 report	*X 2*
Z2 report	*Z 2*

(3) Report cancel function

It can be cancelled by turned the mode switch to MGR position while the data is printed. (In this case, the contents of memory are not cleared.)

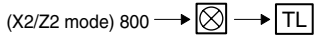
<Print sample of Report cancel>



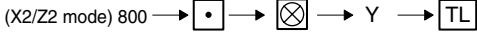
# CHANGING EURO FUNCTION (Z2 MODE JOB)

This job is own to be able to be changed easily from local currency system to EURO currency system in X2/Z2 mode.

## (Reading the current EURO status)



## (Changing EURO Function)



- Y : 1 = EURO STATUS (B)
- 2 = EURO STATUS (C)
- 3 = EURO STATUS (D)

About EURO STATUS are shown the following pages.  
It is executing automatically to change from status (A) to status (B), (C), (D).  
Selectable type is one of below 4 types.  
And the selectable type is decided as below for each status.

CURRENT STATUS ↓	Selectable STATUS			
	(A)	(B)	(C)	(D)
(A)	—	×	×	×
(B)	—	—	×	×
(C)	—	—	—	×
(D)	—	—	—	—

Marked "x" is selectable

## [Action]

It is executed some of below JOBS which is needed for each status.

- 1) Issue General Z1 report.
- 2) Issue General Z2 report.
- 3) Clear GT1/2/3 and Training GT.
- 4) Convert the unit price of DEPT/PLU from LOCAL currency to EURO.  
If new unit price is over the max digits, its price is set as "0.00".
- 5) Convert the HALO amount and HALO digits from LOCAL currency to EURO.  
If new HALO amount is over the max digits, its price is set as "0.00".
- 6) Change PGM function "EX1 AMOUNT PRINTING FOR TOTAL AND CHANGE YES/NO".
- 7) Change PGM function "EX1 CALCULATTION METHOD DIVISION/MULTIPLICATION".
- 8) Set "Domestic currency symbol" as EURO SYMBOL.
- 9) Set "Domestic TAB" as "2".
- 10) Set "EX1 currency symbol" as the suitable data.
- 11) Set "EX1 TAB" as the suitable data.
- 12) Set "Rounding SYSTEM (Denmark/Sweden/Normal)" as "Normal".
- 13) Set "Rounding up/down of the unit digits of AMOUNT" as "No".
- 14) Set "Lowest digit entering limitation of item" as "Arbitrary".
- 15) Set "Lowest digit entering limitation of payment" as "Arbitrary".
- 16) Set "Difference memory" as "No".
- 17) Set "Rounding of foreign currency for EX" as "Round off (4-DOWN, 5-UP)". (EURO Regulation)

- Notes:
- a) This JOB cannot set below additional EURO function automatically.  
Below items must be set by each PGM JOB after this job.
    - (1) EX1 RATE
    - (2) "CHECK, CREDIT operation for EX1 Yes/No"
  - b) When the unit price is converted, the rounding method of EURO currency is fixed as "Round off (4-DOWN, 5-UP)".  
[EURO Regulation]

## [Selecting type and its action]

### Current status (A) :

CURRENT STATUS (A)	Selected STATUS		
	(B)	(C)	(D)
1) General Z1 report	ISSUE	ISSUE	ISSUE
2) General Z2 report	ISSUE	ISSUE	ISSUE
3) GT1/2/3	—	CLEAR	CLAER
4) Convert the unit price of DEPT/PLU	—	CONVERTING	CONVERTING
5) Convert the HALO amount and HALO digits	—	CONVERTING	CONVERTING
6) EX1 AMOUNT PRINTING FOR TOTAL AND CHANGE	"YES"	"YES"	"NO"
7) EX1 CALCULATTION METHOD	"DIVISION"	"MULTI."	"MULTI."
8) Domestic currency symbol	—	[EURO]	[EURO]
9) Domestic TAB	—	"2"	"2"
10) EX1 currency symbol	[EURO]	The Current "Domestic currency symbol"	—
11) EX1 TAB	"2"	The Current "Domestic TAB"	—
12) Rounding SYSTEM (Denmark/Sweden/Normal)	—	"Normal"	"Normal"
13) Rounding up/down of the unit digits of AMOUNT	—	"No"	"No"
14) Lowest digit entering limitation of item	—	"Arbitrary"	"Arbitrary"
15) Lowest digit entering limitation of payment	—	"Arbitrary"	"Arbitrary"
16) Difference memory	—	"No"	"No"
17) Rounding of foreign currency for EX	"ROUND OFF (4DOWN-5UP)"	"ROUND OFF (4DOWN-5UP)"	"ROUND OFF (4DOWN-5UP)"

Marked "—" is remaining the current data.

**Current status (B):**

CURRENT STATUS (B)	Selected STATUS	
	(C)	(D)
1) General Z1 report	ISSUE	ISSUE
2) General Z2 report	ISSUE	ISSUE
3) GT1/2/3	CLEAR	CLAER
4) Convert the unit price of DEPT/PLU	CONVERTING	CONVERTING
5) Convert the HALO amount and HALO digits	CONVERTING	CONVERTING
6) EX1 AMOUNT PRINTING FOR TOTAL AND CHANGE	"YES"	"YES"
7) EX1 CALCULATTION METHOD	"MULTI."	"MULTI."
8) Domestic currency symbol	[EURO]	[EURO]
9) Domestic TAB	"2"	"2"
10) EX1 currency symbol	The Current "Domestic currency symbol"	[SPACE]
11) EX1 TAB	The Current "Domestic TAB"	—
12) Rounding SYSTEM (Denmark/Sweden/Normal)	"Normal"	"Normal"
13) Rounding up/down of the unit digits of AMOUNT	"No"	"No"
14) Lowest digit entering limitation of item	"Arbitrary"	"Arbitrary"
15) Lowest digit entering limitation of payment	"Arbitrary"	"Arbitrary"
16) Difference memory	"No"	"No"
17) Rounding of foreign currency for EX	"ROUND OFF (4DOWN-5UP)"	"ROUND OFF (4DOWN-5UP)"

Marked "—" is remaining the current data.

**Current status (C):**

CURRENT STATUS (C)	Selected STATUS
	(D)
1) General Z1 report	ISSUE
2) General Z2 report	ISSUE
3) GT1/2/3, Training GT	—
4) Convert the unit price of DEPT/PLU	—
5) Convert the HALO amount and HALO digits	—
6) EX1 AMOUNT PRINTING FOR TOTAL AND CHANGE	"NO"
7) EX1 CALCULATTION METHOD	"MULTI."
8) Domestic currency symbol	[EURO]
9) Domestic TAB	"2"
10) EX1 currency symbol	[SPACE]
11) EX1 TAB	—
12) Rounding SYSTEM (Denmark/Sweden/Normal)	—
13) Rounding up/down of the unit digits of AMOUNT	—
14) Lowest digit entering limitation of item	—
15) Lowest digit entering limitation of payment	—
16) Difference memory	—
17) Rounding of foreign currency for EX	"ROUND OFF (4DOWN-5UP)"

Marked "—" is remaining the current data.

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