

SHARP PROGRAMMING MANUAL

CODE: 00ZERA310VPME



ER-A310



ER-A330

ELECTRONIC CASH REGISTER

ER-A310 MODEL ER-A330

(For "V" version)

SRV KEY : LKGIM7113RCZZ

PRINTER : CR-510 (ER-A310)

UCR-812A (ER-A330)

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CHAPTER 1. SERVICE (SRV) MODE

The SRV key is used for operating in the SRV mode.

1. SRV. reset (Program Loop Reset)

Used to return the machine back to its operational state after a lock-up has occurred.

Procedure

- Method 1
 - 1) Turn off the AC switch.
 - 2) Set the mode switch to (SRV) position.
 - 3) Turn on the AC switch.
 - 4) Turn to (SRV) position from (SRV) position.
- Method 2
 - 1) Set the mode switch to PGM2 position.
 - 2) Turn off the AC switch.
 - 3) While holding down JOURNAL FEED key and RECEIPT FEED key, turn on the AC switch.

2. Master reset (All memory clear)

There are two possible methods to perform a master reset. Used to clear all memory contents and return machine back to its initial settings. return keyboard back to default. for default keyboard layout.

Procedure-1 (with SRV key)

- 1) Unplug the AC cord from the wall outlet.
- 2) Set the MODE switch to the (SRV) position.
- 3) Plug in the AC cord to the wall outlet.
- 4) While holding down JOURNAL FEED key, turn to (SRV) position from (SRV) position.

Procedure-2 (without SRV key)

- 1) Turn the mode switch to the (REG) position.
- 2) Ensure the batteries are not installed in the battery compartment and insert the plug into the outlet.
- 3) The right most decimal point will blink for a few seconds.
- 4) The register will sound three beeps.
- 5) The register will display " L 000 ."

3. Reading of the SRV mode program

List of program report

JOB#	REPORT NAME
900	SRV mode program full item report (Not included the keyboard layout)
950	Keyboard layout report

[JOB# 900]

All parameters contained for the SRV mode as listed

Key operation

- SRV mode

900 → → TL/NS

- PGM mode

9900 → → TL/NS

ER-A310

YOUR RECEIPT
Thank you
Call again

31-08-96

```

901 0102
902 0000
903 0000
904 0000
905 0100
906 0001
907 0010
908 0000
909 0000
910 0004
911 0000
912 1140
913 0002
914 0100
915 0000
916 0000
917 0000
918 0000
919 0000
927 0000
      0000Z 1
      0000Z 2
GT * 00000 1
000000 * 00
GT * 00000 2
000000 * 00
GT - 00000 3
000000 * 00
GT * 00000 TR
000000 * 00

000-0003
  15-00
  
```

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THANK YOU

30-08-96

901 0102
 902 0000
 903 0000
 904 0000
 905 0100
 906 0001
 907 0010
 908 0000
 909 0000
 910 0001
 911 0000
 912 1140
 913 0002
 914 0100
 915 0000
 916 0000
 917 0000
 918 0000
 919 0000
 927 0000
 Z1 0000
 Z2 0000

GT 1

*000000
 00000.00

GT 2

*000000
 00000.00

GT 3

-000000
 00000.00

GT @

*000000
 00000.00

000-0003
 15-00

[JOB# 950]

Keyboard layout programming report

Key operation

- SRV mode

950 → → TL/NS

- PGM mode

9950 → → TL/NS

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01	17
02	18
03	22
04	26
05	19
06	23
07	27
08	20
09	24
10	28
11	21
12	25
13	12
14	11
15	64
16	63
17	..
18	38
19	44
20	02
21	03
22	09
23	05
24	01
25	..
26	07
27	..
28	61
29	60
30	..
31	..
32	..
33	65
34	..
35	..
36	..
37	59
38	..
39	66
40	..
41	..
42	..
43	10
44	06
45	68
46	62
47	67
101	39
102	40

103	41
104	42
105	43
106	..
107	..
108	..
109	..
110	..
111	..
112	..
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119	..
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122	..
123	..
124	..
125	..
126	..
127	..
128	..
129	..
130	..

000-0005
15-01

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30-08-96

01	17
02	18
03	22
04	26
05	19
06	23
07	27
08	20
09	24
10	28
11	21
12	25
13	12
14	11
15	64
16	63
17	..
18	38
19	44
20	02
21	03
22	09
23	05
24	01
25	..
26	07
27	..
28	61
29	62
30	..
31	..
32	..
33	59
34	65
35	..
36	..
37	60
38	66
39	67
40	..

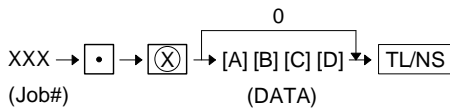
41	..
42	..
43	10
44	06
45	..
46	50
47	68
101	33
102	34
103	35
104	36
105	37
106	39
107	40
108	41
109	42
110	43
111	45
112	46
113	47
114	48
115	49
116	..
117	..
118	..
119	..
120	..
121	..
122	..
123	..
124	..
125	..
126	..
127	..
128	..
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131	..
132	..
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134	..
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138	..
139	..
140	..

141	..
142	..
143	..
144	..
145	..
146	..
147	..
148	..
149	..
150	..
000-0005	
15-00	

4. Service mode programming

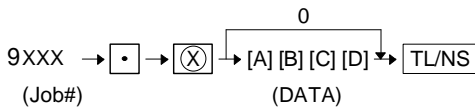
The following are the key operation required for programming.

(In SRV mode)



(In PGM mode)

JOB#901-A must be set to "0."



Details of [A][B][C][D] will be discussed at each item description.

★ mark is MRS setting.

[JOB #901]:MRS=0102

#901-A: 1. SRV programming in PGM mode

1. SRV programming in PGM mode	901-A	
Enable	0	★
Disable	4	

#901-B: Tax system

1. TAX system	901-B	
Auto TAX 1~4	0	
Auto VAT 1~4	1	★
Manual VAT 1~4	2	
Manual VAT 1	3	
Manual TAX 1~4	4	
Swiss TAX	5	

#901-C: 1. Rounding system

1. Rounding system	901-C	
Normal	0	★
SWEDEN	1	
DENMARK	4	

#901-D: 1. "00" key or "000" key selection
2. TAB setting

1. "00" key or "000" key selection	2. TAB setting	901-D	
"00" key	0	0	
	0.0	1	
	0.00	2	★
	0.000	3	
"000"	0	4	
	0.0	5	
	0.00	6	
	0.000	7	

[JOB#902] ER-A310: NOT USED MRS=0000

ER-A330: MRS=0000

#902-A: 1. PLU quantity in ER-A330 for overlapped cashier detailed receipt printing.

1. PLU quantity	902-A	
750	0	★
650	1	

To use the overlapped cashier function, the PLU number must be set to 650.

#902-B, C, D: Not used (Fixed at "000")

[JOB#903] NOT USED: MRS=0000

[JOB#904] MRS=0000

#904-A: 1. Printing of date

1. Printing of date	904-A	
Yes	0	★
No	4	

#904-B: 1. Printing of consecutive No.

1. Printing of consecutive No.	904-C	
Yes	0	★
No	4	

#904-C, D: Not used (Fixed at "00")

[JOB#905] MRS=0100

#905-A: Not used (Fixed at "0")

#905-B: 1. Tax printing when taxable subtotal is zero.
2. Tax printing when tax is zero.

1. Taxable subtotal is zero	2. Tax is zero	905-B
Skip	Print	0
	Skip	1
Print	Print	4
	Skip	5

#905-C, D : Not used (Fixed at "00")

[JOB#906] MRS=0001

#906-A: 1. Not used (Fixed at "0")

#906-B: 1. Hash department setting

1. Hash department setting	906-B
Disable	0
Enable	2

#906-C: 1. Split pricing counting

1. Split pricing counting	906-C
Quantity	0
Package	4

#906-D: 1. Fractional quantity

1. Fractional quantity	906-D
No	0
Yes (3 digit decimal place)	1

[JOB#907] MRS=0010

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

#907-C: 1. In case of all cashier CCD and individual cashier CCD, X1 report before CCD entry
2. Minus department and PLU

1. In case of all cashier CCD and individual cashier CCD, X1 report before CCD entry	2. Minus department and PLU	907-C
Disable	Disable	0
	Enable	1
Enable	Disable	4
	Enable	5

#907-D: 1. CCD compulsory

1. CCD compulsory	907-D
Non compulsory	0
For individual cashier	1
For all cashier	2

[JOB#908] MRS=0000

#908-A: GT print on Z report

GT1 (NET)	GT2 (+)	GT3 (-)	908-A
Print	Print	Print	0
		Skip	1
	Skip	Print	2
		Skip	3
Skip	Print	Print	4
		Skip	5
	Skip	Print	6
		Skip	7

#908-B: GT print on X report

GT1 (NET)	GT2 (+)	GT3 (-)	908-B
Skip	Skip	Skip	0
		Print	1
	Print	Skip	2
		Print	3
Print	Skip	Skip	4
		Print	5
	Print	Skip	6
		Print	7

#908-C: 1. Add void-mode transaction data to hourly total report
2. Resetting of consecutive number in Z1 resetting

1. Add void-mode transaction to hourly total report	2. Resetting of consecutive No.in Z1 resetting	908-C
No	No	0
	Yes	1
Yes	No	4
	Yes	5

#908-D: 1. Z1 resetting, resets GT Enable/Disable

1. GT resetting at Z1	908-D
Disable	0
Enable	1

[JOB#909] MRS=0000

#909-A: 1. Printing of training GT on the X report
2. Printing of training GT on the Z report

1. Printing of training GT on the X report	2. Printing of training GT on the Z report	909-A
Skip	Print	0
	Skip	1
Print	Print	2
	Skip	3

#909-B: Not used (Fixed at "0")

#909-C: 1. Printing of data in void-mode totalizer and manager void totalizer on Z2 report
2. Printing of data in void-mode totalizer and manager void totalizer on Z1 report

1. Void-mode totalizer on Z2 printing	2. Void-mode totalizer on Z1 printing	909-C
Print	Print	0
	Skip	2
Skip	Print	4
	Skip	6

#909-D: Not used (Fixed at "0")

[JOB#910] ER-A310: MRS=0004
ER-A330: MRS=0001

#910-A: 1. Overlapped cashier receipt format
 2. Overlapped cashier function

1. Overlapped cashier receipt format	2. Overlapped cashier function	910-A	
Total receipt	No	0	★
	Yes	1	
Detail receipt	No	2	
	Yes	3	

#910-B: 1. Auto cashier sign off at the end of each transaction

1. Auto cashier sign off at the end of each transaction	910-B	
No (After cashier Z1 only)	0	★
Yes (Everytime)	1	

#910-C: Not used (Fixed at "0")

#910-D: 1. Cashier system

1. Cashier system	910-D	
1 hole key	1	★ (ER-A330)
Cashier code entry key	4	★ (ER-A310)

[JOB#911] MRS=0000

#911-A: 1. Fraction treatment

1. Fraction treatment	911-A	
Round off	0	★
Round up	1	
Round down	2	

#911-B, C, D: Not used (Fixed at "000")

[JOB#912] MRS=1140

#912-A: 1. Date print format

Date format	912-A	
Month/Day/Year	0	★
Day/Month/Year	1	
Year/Month/Day	2	

#912-B: 1. Time system

1. Time system	912-B	
12H	0	★
24H	1	

#912-C: 1. After transaction receipt format

1. After transaction receipt	912-C	
Total only	0	★
Detail	4	

#912-D: Not used (Fixed at "0")

[JOB#913] MRS = 0002

#913-A: 1. VP format on Receipt/Journal
 2. Content of TOTAL VP amount

1. VP format	2. VP amount	913-A	
Date & amount	Total amount	0	★
	Tendered amount	1	
Machine# & amount	Total amount	2	
	Tendered amount	3	

#913-B: 1. Printing of [ST]
 2. Escape the compulsion of VP

NOTE: Must turn to MGR mode and depress

- , [PRINT] keys to escape validation

1. ST Print	3. Escape the compulsion of VP/SLIP	913-B	
No	Disable	0	★
	Enable	1	
Yes	Disable	4	
	Enable	5	

#913-C: 1. Buzzer off 2sec. after lock error.
 2. Buffered keyboard

1. Error beep	2. Buffered keyboard	913-C	
2-sec. off	Yes	0	★
	No	1	
Constant	Yes	2	
	No	3	

#913-D: 1. Drawer closing operation
 2. Error mode
 3. Key catch sound

1. Drawer closed compulsory	2. Error mode	3. Key catch sound	913-D	
Non-compulsory	All lock error	Enable	0	★
		Disable	1	
	Miss operation (One shot error)	Enable	2	
		Disable	3	
Compulsory	All lock error	Enable	4	
		Disable	5	
	Miss operation (One shot error)	Enable	6	
		Disable	7	

[JOB#914] MRS = 0100

#914-A: Not used (Fixed at "0")

#914-B: 1. No-sale after NON ADD code entry

1. No-sale after # entry	914-B	
Disable	0	★
Enable	1	

#914-C: 1. Void mode

1. Void mode	914-C	
Enable	0	★
Disable	2	

#914-D: 1. CHECK CASHING Enable/Disable
 2. Non-add code entry Disable/Enable

1. CHECK CASHING	2. Non-add code entry	914-D	
Disable	Enable	0	★
	Disable	1	
Enable	Enable	2	
	Disable	3	

[JOB#915] MRS = 0000

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

#915-C: 1. ST%, ST(-) as many times needed/operation only once

1. ST%, ST(-) as many times needed/operation only once	915-C	
Unlimited	0	★
Once only	2	

#915-D: Not used (Fixed at "0")

[JOB#916] MRS = 0000

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

- #916-C: 1. Negative merchandise subtotal
 2. Subtotal entry compulsory before tendering
 3. Subtotal entry before direct non-tendering finalization

1. Negative merchandise subtotal	2. Subtotal entry compulsory before tendering	3. Subtotal entry before direct non-tendering finalization	916-C	
Allow	Non-compulsory	Non-compulsory	0	★
		Compulsory	1	
	Compulsory	Non-compulsory	2	
		Compulsory	3	
Disallow	Non-compulsory	Non-compulsory	4	
		Compulsory	5	
	Compulsory	Non-compulsory	6	
		Compulsory	7	

- #916-D: 1. Coupon PLU printing on X/Z report
 2. Net sales subtotal (NET1) printing on X/Z report
 3. CHECK change total printing on X/Z report

1. Print coupon PLU's on general report	2. Print net sales SBTL (NET1) on general report	3. Print CHK CHANGE on general report	916-D	
Print	Print	Print	0	★
		Skip	1	
	Skip	Print	2	
		Skip	3	
Skip	Print	Print	4	
		Skip	5	
	Skip	Print	6	
		Skip	7	

[JOB#917] NOT USED MRS = 0000

[JOB#918] MRS = 0000

- #918-A: 1. Direct non-tendering finalization after previous tender entry

1. Direct non-tendering finalization after previous tender entry	918-A	
Disable	0	★
Enable	2	

#918-B, C, D: Not used (Fixed at "000")

[JOB#919] MRS = 0000

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

- #919-D: 1. Foreign currency format

1. Foreign currency	919-D	
Not	0	★
Omit digits lower than TAB position	1	

[JOB#927] MRS = 0000

- #927-A: 1. Rounding up of the units digit of amount

- #927-B: 1. Rounding down of the units digit of amount

1. Rounding the units digit of amount	927-AB	
Common destination	00	★
Netherland/Switzerland	82	
Norway	54	

- #927-C: 1. Difference memory (Difference between before-rounding and after-rounding)

2. Limit on the least significant digit in entering the amount on item

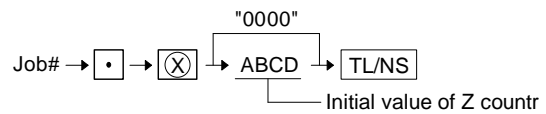
1. Difference memory	2. Limit on the least significant digit in entering the amount on item	927-C	
No	Arbitrary	0	★
	0 only	1	
	0 and 5 only	2	
Yes	Arbitrary	4	
	0 only	5	
	0 and 5 only	6	

- #927-D: 1. Application of rounding
 2. Limit on the least significant digit in entering the amount of payment

1. Application of rounding	2. Limit on the least significant digit in entering the amount of payment	927-D	
Item & Payment	Arbitrary	0	★
	0 only	1	
	0 and 5 only	2	
Payment	Arbitrary	4	
	0 only	5	
	0 and 5 only	6	

[JOB#930-931] MRS = 0000

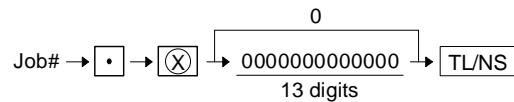
RESET REPORT COUNTER



JOB #	Function
930	Z1 report counter
931	Z2 report counter

[JOB#942, 943, 969] MRS = 000000000000

GT COUNTER PRESETTING

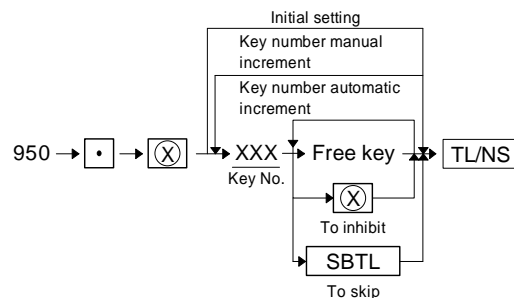


JOB #	Function
942	GT2 (Positive GT)
943	GT3 (Negative GT)
969	TRAINING GT

Note: GT1 is obtained by the following calculation.
 Equation: GT1=GT2-GT3

[JOB#950] MRS = STANDARD KEY LAYOUT

Free key layout (Except for department keys and direct PLU keys.)



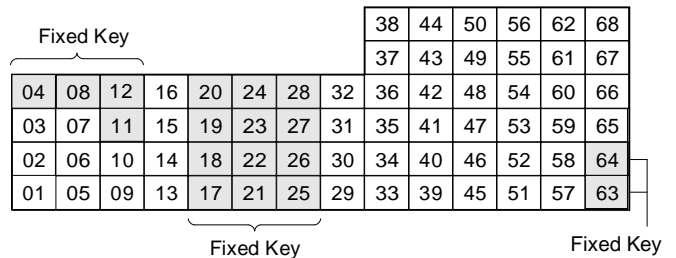
XXX: Key No. = 17 ~ 150

FUNCTION KEY LIST

Key No.	Key name
1	0 key (Fixed key)
2	1 key (Fixed key)
3	2 key (Fixed key)
4	3 key (Fixed key)
5	4 key (Fixed key)
6	5 key (Fixed key)
7	6 key (Fixed key)
8	7 key (Fixed key)
9	8 key (Fixed key)
10	9 key (Fixed key)
11	00 key (Fixed key)
12	Decimal point (Fixed key)
13	CL (Fixed key)
14	⊗ (Fixed key)
15	#/TM/ST (Fixed key)
16	TL/NS (Fixed key)
17	CASH2
18	PLU/SUB
19	AMT
20	VP
21	RCPT
22	VOID
23	REFUND
24	%1
25	%2
26	(-)-1
27	(-)-2
28	VAT
29	AUTO
30	AUTO2
31	AUTO3
32	AUTO4
33	CHECK1
34	CHECK2
35	CHECK3
36	CHECK4
37	CHARGE1
38	CHARGE2
39	EX1
40	EX2
41	EX3
42	EX4
43	RA
44	PO
45	CASHIER NO. (ER-A310 only)
46	DEPT.#
101	DEPT.1
102	DEPT.2
103	DEPT.3
104	DEPT.4
105	DEPT.5
106	DEPT.6
107	DEPT.7
108	DEPT.8
109	DEPT.9

Key No.	Key name
110	DEPT.10
111	DEPT.11
112	DEPT.12
113	DEPT.13
114	DEPT.14
115	DEPT.15
116	DEPT.16
117	DEPT.17
118	DEPT.18
119	DEPT.19
120	DEPT.20
121	DEPT.21
122	DEPT.22
123	DEPT.23
124	DEPT.24
125	DEPT.25
126	DEPT.26
127	DEPT.27
128	DEPT.28
129	DEPT.29
130	DEPT.30
131	DEPT.31 (ER-A330 only)
132	DEPT.32 (ER-A330 only)
133	DEPT.33 (ER-A330 only)
134	DEPT.34 (ER-A330 only)
135	DEPT.35 (ER-A330 only)
136	DEPT.36 (ER-A330 only)
137	DEPT.37 (ER-A330 only)
138	DEPT.38 (ER-A330 only)
139	DEPT.39 (ER-A330 only)
140	DEPT.40 (ER-A330 only)
141	DEPT.41 (ER-A330 only)
142	DEPT.42 (ER-A330 only)
143	DEPT.43 (ER-A330 only)
144	DEPT.44 (ER-A330 only)
145	DEPT.45 (ER-A330 only)
146	DEPT.46 (ER-A330 only)
147	DEPT.47 (ER-A330 only)
148	DEPT.48 (ER-A330 only)
149	DEPT.49 (ER-A330 only)
150	DEPT.50 (ER-A330 only)

ER-A310/A330 KEY POSITION



CHAPTER 2. PROGRAM (PGM) MODE

1. Reading of the PGM mode program

List of program report

JOB# entry

JOB#	REPORT NAME
1100	Department program report
1200	PLU program report
1300	Other program report
2700	Tax program report
2900	Auto key program report

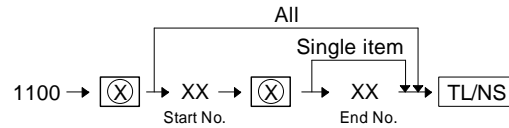
Direct key entry

JOB#	REPORT NAME
<input type="checkbox"/> TL/NS	PGM mode program report (Not included the PLU program report and Auto key program report)
<input type="checkbox"/> PLU	PLU program report

Note: Shouldn't program readouts be after the program steps.

[JOB#1100]: Department program report

Key operation



ER-A310

YOUR RECEIPT
Thank you
Call again

31-08-96

01 0003
 0000 TX
 18
 1 #
 123•45

02 0003
 0000 TX
 18
 10 #
 -678•90

03 0001
 0000 TX
 18
 1 #
 0•00

04 0001
 0000 TX

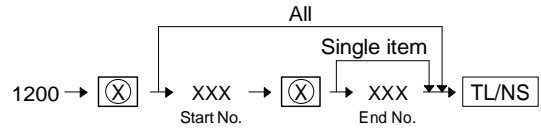
1 #

10 0•00
 0001
 0000 TX
 18
 1 #
 0•00

000-0009
15-04

[JOB#1200]: PLU program report

Key operation



ER-A310

YOUR RECEIPT
THANK YOU

30-08-96

01 0003
0000 TX
18
1 #
123.45

02 0003
0000 TX
18
10 #
-67.89

03 0001
0000 TX
18
1 #
0.00

04 0001
0000 TX
1 #
0.00

10 0001
0000 TX
18
1 #
0.00

000-0016
15-07

YOUR RECEIPT
Thank you
Call again

31-08-96

PL001 01
00000 TX
2
123.45

PL002 01
00000 TX
2
-67.89

PL003 01
00000 TX
2
0.00

PL004 01
00000 TX
2
0.00

PL010 01
00000 TX
2
0.00

000-0013
15-06

Key operation

1300 → → TL/NS

ER-A310

YOUR RECEIPT
THANK YOU

30-08-96

PL 001 01
 00000 TX
 2
 1234.56

PL 002 01
 00000 TX
 2
 -78.90

PL 003 01
 00000 TX
 2
 0.00

PL 004 01
 00000 TX

0.00
 PL 010 01
 00000 TX
 2
 0.00

000-0014
 15-06

YOUR RECEIPT
Thank you
Call again

31-08-96

-0.00 @ 1
 18

-0.00 % 1
 0.0000 EX 1
 18 ◀
 18 ▶

00000000 CA
 18 CH 1

00000000
 18 CR 1

00000000
 999999.99 CH
 999999.99 CH →
 9
 999999.99
 2616#

1
 00000000

2
 00000000

3
 00000000

4
 00000000
 2617#
 0

1 1 00
 2 1 00
 3 1 00
 4 1 00

000-0015
 15-07

Key operation

2700 → → TL/NS

ER-A310

YOUR RECEIPT

THANK YOU

30-08-96

-0.00 @ 1
18

-0.00 % 1
0.0000 EX 1

18 ◀
18 ▶

00000000 CA
18 CH 1

00000000
18 CH 2

00000000
18 CR 1

00000000
18 CR 2

00000000
9

99999.99 CH
9

99999.99 CH →
99

99999.99
2616 #

1
00000000

2
00000000

3
00000000

4
00000000

2617 #
0

- 1 1 00
- 2 1 00
- 3 1 00
- 4 1 00
- 5 1 00
- 6 1 00

000-0019
15-10

YOUR RECEIPT

Thank you
Call again

31-08-96

3.0000 TX 1
0.10

4.0000 TX 2
0.12

4.0000 TX 3
0.15

2.0000 TX 4
0.11

000-0022
15-11

Key operation

2900 → → TL/NS

ER-A310

YOUR RECEIPT
THANK YOU

30-08-96

TX 1
3.0000
0.10

TX 2
4.0000
0.12

TX 3
4.0000
0.15

TX 4
2.0000
0.11

000-0027
15-16

YOUR RECEIPT
Thank you
Call again

31-08-96

	1 #
01	02
02	18
03	02
04	11
05	102
06	..
07	..
08	..
09	..
10	..
11	..
12	..
13	..
14	..
15	..
16	..
17	..
18	..
19	..
20	..

000-0025 1
15-14

YOUR RECEIPT

THANK YOU

30-08-96

	1 #
01	02
02	18
03	02
04	11
05	102
06	..
07	..
08	..
09	..
10	..
11	..
12	..
13	..
14	..
15	..
16	..
17	..
18	..
19	..
20	..

000-0030 1
15-27

[CA/AT]: PGM mode program report

Key operation

→ TL/NS

ER-A310

```

YOUR RECEIPT
Thank you
Call again

31-08-96

01 0003
   0000 TX
   18
   1#
  123.45
02 0003
   0000 TX
   18
   10#
  -678.90
03 0001
   0000 TX
   18
   1#
   0.00
04 0001

```

```

30 0001
   0000 TX
   18
   1#
   0.00

  -0.00 01
   18
  -0.00 %1
  0.0000 EX1
   18 ◀
   18 ▶
  00000000 CA
   18 CH1
  00000000
   18 CR1
  00000000
  999999.99 CH
  999999.99 CH→
  9
  999999.99
   2616#

  1
  00000000
  2
  00000000
  3
  00000000
  4
  00000000
   2617#
   0
  1 1 00
  2 1 00
  3 1 00
  4 1 00

                                     TX 1
  3.0000
   0.10
                                     TX 2
  4.0000
   0.12
                                     TX 3
  4.0000
   0.15
                                     TX 4
  2.0000
   0.11

  000-0027 1
   15-15

```

YOUR RECEIPT
THANK YOU

30-08-96

01 0003
 0000 TX
 18
 1 #
 123.45

02 0003
 0000 TX
 18
 10 #
 -67.89

03 0001
 0000 TX
 18
 1 #
 0.00

04 0001

50 0001
 0000 TX
 18
 1 #
 0.00

-0.00 @ 1
 18
 -0.00 % 1
 0.0000 EX 1
 18 ◀
 18 ▶

00000000 CA
 18 CH 1

00000000
 18 CH 2

00000000
 18 CR 1

00000000
 18 CR 2

00000000

9
 99999.99 CH
 9
 99999.99 CH →
 99
 99999.99
 2616 #

1
 00000000

2
 00000000

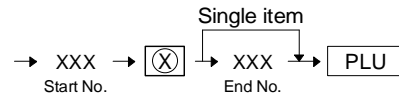
3
 00000000

4
 00000000
 2617 #
 0

1 1 00
 2 1 00
 3 1 00
 4 1 00
 5 1 00
 6 1 00

[PLU]: PGM mode program report

Key operation



ER-A310

```

      TX 1
3.0000
 0.10
      TX 2
4.0000
 0.12
      TX 3
4.0000
 0.15
      TX 4
2.0000
 0.11

000-0032 1
 15-28
  
```

```

YOUR RECEIPT
Thank you
Call again

31-08-96

PL001 01
00000 TX
 2
123.45
PL002 01
00000 TX
 2
-67.89
PL003 01
00000 TX
 2
0.00
PL004 01

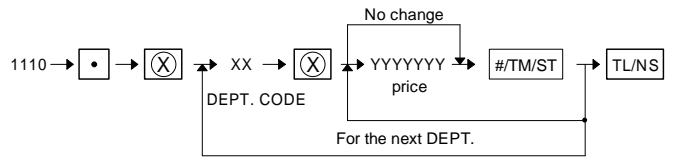
0.00
PL010 01
00000 TX
 2
0.00

000-0029 1
 15-17
  
```

2. Programming by JOB# entry

[JOB#1110]

PROGRAMMING OF DEPT. PRICE



XX: DEPT-CODE = 01 ~ 30/50 max.

YYYYYYY: PRICE = 0 ~ 9999999

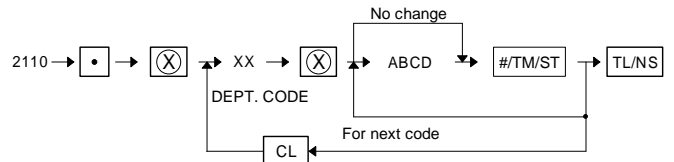
Preset price is max. 7 digits.

Price can be programmed for each dept. If this programming is performed, the ECR is automatically programmed to allow preset price entry even when it has been programmed not to allow preset price entry in dept. function programming (JOB#2110).

MRS = 0000000

[JOB#2110]

PROGRAMMING OF DEPT. FUNCTION



XX: DEPT. code = 01 ~ 30/50 max.

A:

Item validation printing	A
Non compulsory	0
Compulsory	1

B:

SICS Function	B
Normal	0
Single item cash sale	1

C: Not used (Fixed at "0")

D:

Amount entry type	D
Inhibited	0
Open	1
Preset	2
Open and preset	3

MRS = 0001

YOUR RECEIPT

THANK YOU

30-08-96

PL001 01
00000 TX

2

1234.56

PL002 01
00000 TX

2

-78.90

PL003 01
00000 TX

2

0.00

PL004 01
00000 TX

U.UU

PL010 01
00000 TX

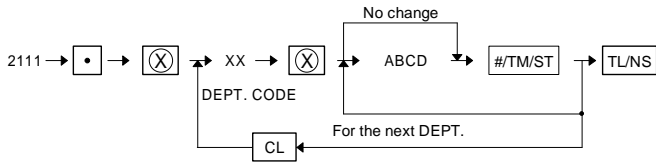
2

0.00

000-0034 1
15-32

[JOB#2111]

DEPT. TAX STATUS AND SIGN PROGRAMMING



XX: DEPT. CODE = 01 ~ 30/50 max.

A:

VAT1 (For Swiss tax)	A
No	0
Yes	1

B:

Taxable 3	B
Non taxable	0
Taxable	1

C:

Taxable 2	C
Non taxable	0
Taxable	1

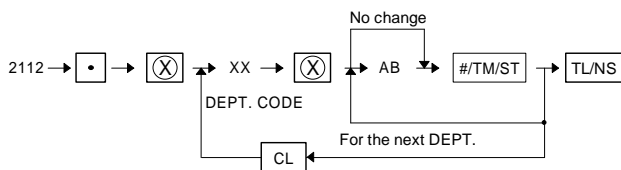
D:

Taxable 1	D
Non taxable	0
Taxable	1

MRS = 0000

[JOB#2112]

DEPT. HALO (limit) preset



XX: DEPT. CODE = 01 ~ 30/50 max.

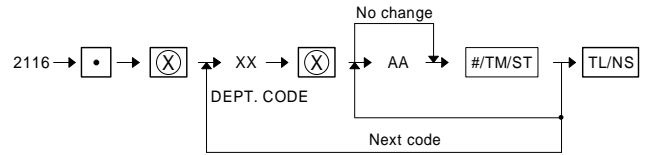
- A: Mantissa (HALO) = 1 ~ 9
- B: Exponent (HALO) = 0 ~ 8

Items A and B indicate $A \times 10^B$. Any amount below that value is enable within 99999999.

MRS = 18

[JOB#2116]

PROGRAMMING OF DEPT. GROUP



XX: DEPT. code = 01 ~ 30/50 max.

AA: Group No. = 1 ~ 12

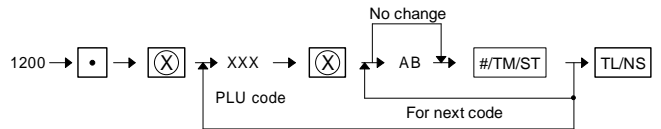
Group No.	Group name
1~9	Plus department
10	Minus department
11	Plus HASH department
12	Minus HASH department

MRS = 01

A selection of the group "Minus" and "Hash" are inhibited when the hash function is programmed as disabled in SRV mode.

[JOB#1200]

Creating/assigning PLUs and the associated departments.



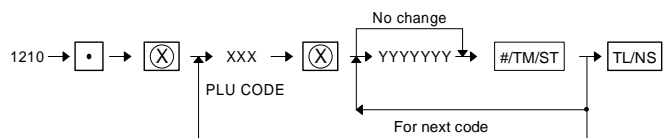
- XXX: PLU code = 001 ~ 999
- AB: DEPT. code = 01 ~ 30/50

If the record of entered PLU code is not in PLU file at this programming, it will be created in PLU file.

MRS = 01

[JOB#1210]

PRICE PROGRAMMING FOR PLUs



XXX: PLU CODE = 001 ~ 999

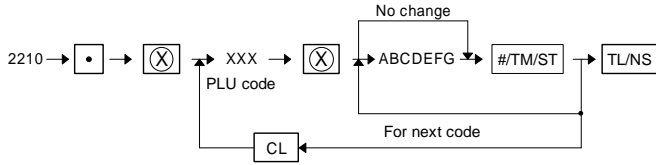
YYYYYYY: Amount = 0 ~ 9999999

If the record of entered PLU code is not in PLU file at this programming, it will be created in PLU file.

MRS = 0000000

[JOB#2210]

PLU function programming



XXX: PLU code = 001~500/999 max.

A:

Sign	A
+	0
-	1

B: Not used (Fixed at "0")

C:

VAT1 (For Swiss tax)	C
No	0
Yes	1

D:

Taxable3	D
Non taxable	0
Taxable	1

E:

Taxable2	E
Non taxable	0
Taxable	1

F:

Taxable1	F
Non taxable	0
Taxable	1

G:

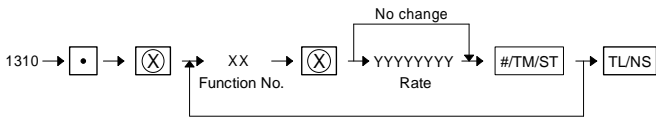
Amount entry type	G
Inhibited	0
Open	1
Preset	2
Open and preset	3
Delete	4

If the record of entered PLU code is not in PLU file at this programming, it will be created in PLU file.

MRS = 0000002

[JOB#1310]

RATE PROGRAMMING



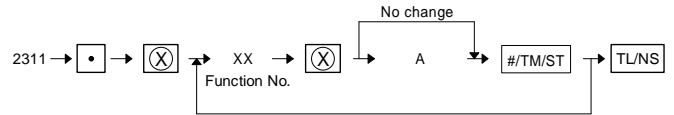
XX: Function No.
YYYYYYYY: Rate

Function No.	Function	Entry range	Remarks
1	(-)1	0 to 99999.99	(-) unit price
2	(-)2		
3	%1	0 to 100.00	% rate
4	%2		
5	Exchange 1	0 to 9999.9999	Rate
6	Exchange 2		
7	Exchange 3		

MRS = 0

[JOB#2311]

MISC KEY PROGRAMMING 1



XX: Function No.

Function No.	Function
3	%1
4	%2

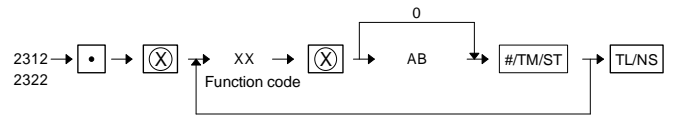
A:

Sign	A
+	0
-	1

MRS = 100000

[JOB#2312, 2322]

HALO PROGRAMMING



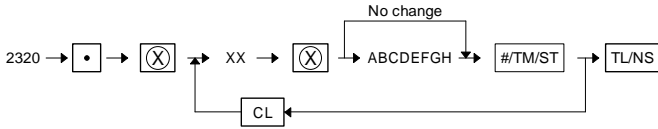
XX: Function No.
A: Mantissa (0 to 9)
B: Exponent (0 to 8)

JOB#	Function No.	Function	Remarks
2312	1	(-)1	Item B is specificable within the range from 0 to 8.
	2	(-)2	
	9	RA	
	10	PO	
2322	12	CASH2	
	13	CH1	
	14	CH2	
	15	CH3	
	16	CH4	
	17	CR1	
	18	CR2	

Entry range, system: $A \times 10^B$
MRS = 18

[JOB#2320]

MEDIA KEY PROGRAMMING



XX: Function No.

Function No.	Function
11	CA1
12	CA2
13	CH1
14	CH2
15	CH3
16	CH4
17	CR1
18	CR2

A:

Change due	A
Enable	0
Disable	1

B:

VP	B
Non compulsory	0
Compulsory	1

C, D, E, F, G: Not used (Fixed at "00000")

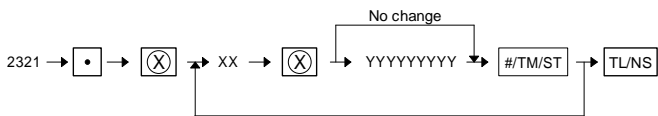
H:

Entry of amount tended	H
Non compulsory (Cash, Check)	0
Inhibit (CR)	1

MRS=00000000

[JOB#2321]

MEDIA KEY FUNCTION PROGRAM (AMOUNT HALO)



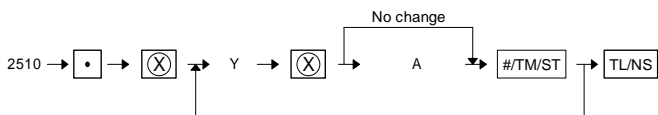
XX: Function No.

YYYYYYYY: Limitation amount

Func. No.	Function	Entry range	MRS
19	CID (Sentinel)	0 to 999999999	999999999
18	Check CHANGE	0 to 99999999	99999999
17	Check Cashing	0 to 99999999	99999999

[JOB#2510]

CASHIER PROGRAMMING



Y: Cashier code = 1~6

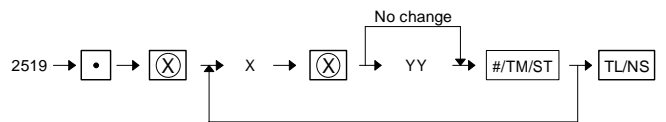
A:

Drawer No.	A
Not open	0
Drawer No.1	1
Drawer No.2	2

MRS = 1

[JOB#2519]

CASHIER PASSWORD DEFINITION



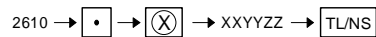
X: Cashier No. = 1~6

YY: Cashier Password = 00~99

MRS = 00 (No password)

[JOB#2610]

DATE SETTING



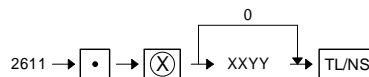
XXYYZZ: Date (Year-Month-Day/Day-Month-Year/Month-Day-Year)

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

MRS = 010100

[JOB#2611]

TIME SETTING



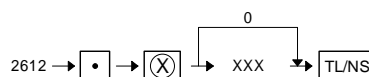
XX: Hour (00 ~ 23)

YY: Minute (00 ~ 59)

MRS = 0

[JOB#2612]

MACHINE NUMBER SETTING

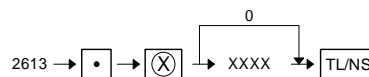


XXX: Machine number (000 ~ 999)

MRS = 000

[JOB#2613]

CONSECUTIVE NUMBER SETTING

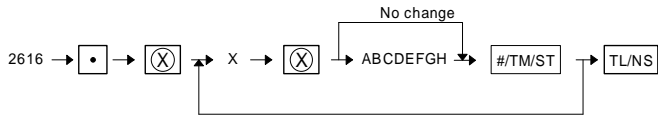


XXXX: Consecutive number (0000 ~ 9999)

MRS = 0000

[JOB#2616]

OPTIONAL FEATURE



X: 1 MRS = 00000000

A:	OP X/Z report	A
	Enable	0
	Disable	1

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

D:	"RFND" key entry in REG mode	D
	Enable	0
	Disable	1

E:	Direct void function in REG mode	E
	Enable	0
	Disable	1

F:	In direct void in REG mode	F
	Enable	0
	Disable	1

G:	Subtotal void in REG mode	G
	Enable	0
	Disable	1

H: Not used (Fixed at "0")

X: 2 MRS = 00000000

A:	The first last item void	A
	Enable	0
	Disable	1

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

D:	Printing of the number of purchases	D
	No	0
	Yes	1

E:	Time print	E
	Yes	0
	No	1

F:	Printing of journal	F
	Full print	0
	Journal select	1

G, H: Not used (Fixed at "00")

X: 3 MRS = 00000000

A:	Flash report in OP X/Z mode	A
	Yes	0
	No	1

B: Not used (Fixed at "00")

C:	Zero skip in Cashier report	C
	Yes	0
	No	1

D:	Zero skip in Transaction report	D
	Yes	0
	No	1

E:	Zero skip in Dept. report	E
	Yes	0
	No	1

F:	Zero skip in PLU report	F
	Yes	0
	No	1

G:	Zero skip in Hourly report	G
	Yes	0
	No	1

H:	Zero skip in Daily net report	H
	Yes	0
	No	1

X: 4 NOT USED MRS = 00000000

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

C:	Vat/Tax amount printing on R/J	C
	Yes	0
	No	1

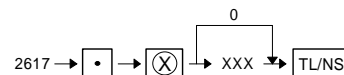
D:	Taxable amount printing on R/J	D
	Yes	0
	No	1

E:	Net amount printing on R/J	E
	Yes	0
	No	1

F, G, H: Not used (Fixed at "000")

[JOB#2617]

PROGRAMMING OF THE TIME INTERVAL FOR THE TILL TIMER

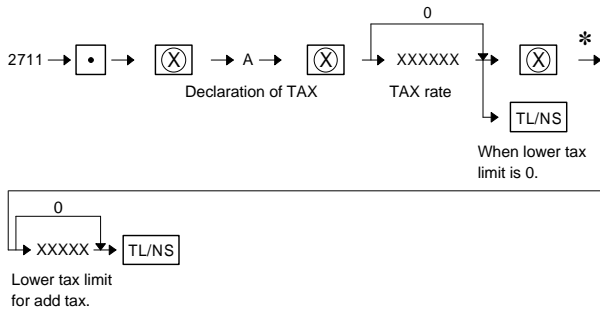


XXX: 0 ~ 255 sec

MRS = 000

[JOB#2711]

TAX RATE PROGRAMMING



DEPRESSION OF THE ST KEY AT FOLLOWING POINTS PERFORM A TAX TABLE DELETE OPERATION.

A:

Tax programming	A
Tax1	1
Tax2	2
Tax3	3
Tax4 (For Swiss tax)	4

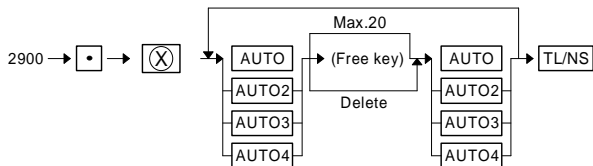
xxxxxx: Rate = 0.0000-99.9999%
 LOWER TAX LIMITATION max. 999.99
 (This is invalid in VAT system.)
 MRS = 0

[JOB#2900]

<CAUTION>

(This JOB must be performed at X2/Z2 mode position.)

AUTO KEY SETTING

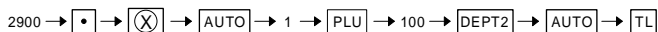


(Auto key function)

- This machine has [AUTO] key which can be programmed by the following key-sequence.
- When [AUTO] key is depressed, the machine works the same as the programmed key-sequence programmed.

<Example>

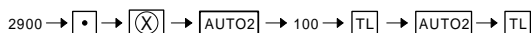
Mode switch: (X2/Z2)



Mode switch: (REG)

Key entry	R/J	Display	Comment
[AUTO]	PL0011	1	same as [1] entry
	★1.10	001 1.10	same as [PLU] entry
	02 ★1.00	1	same as [1] entry
		10	same as [0] entry
		100	same as [0] entry
		02 1.00	same as [DEPT2] entry

Mode switch: (X2/Z2)

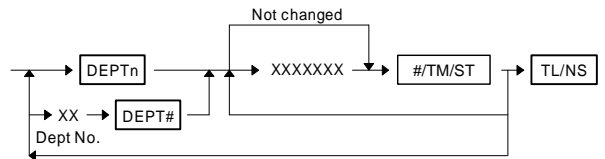


Mode switch: (REG)

Key entry	R/J	Display	Comment
[DEPT1]	01 ★1.00	01 1.00	same as [1] entry
[AUTO2]		1	same as [0] entry
	★1.00 TL	10	same as [0] entry
	★1.00 CA	100	same as [0] entry
	★1.00 CG	C 0.00	same as [TL] entry

3. Programming by direct key entry

1) PRICE PROGRAMMING for DEPT.



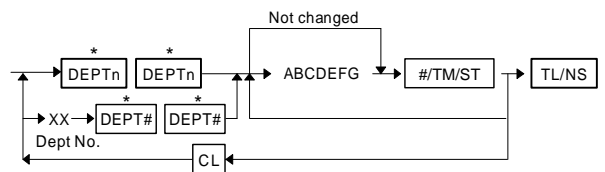
XXXXXXX: UNIT PRICE (Max. 7 digits)

MRS = 0

Note: Current price is displayed.

If [DEPT#] or [DEPTn] (same as displayed department number) is depressed, programming mode is changed from "PRICE PROGRAMMING" to "FUNCTION PROGRAMMING" (from "FUNCTION PROGRAMMING" to "PRICE PROGRAMMING").

2) FUNCTION PROGRAMMING for DEPT.



* When starting setting, press [DEPTn] or [DEPTE#] key twice. When continuing the same setting, press it once.

A:

Taxable4 (For Swiss tax)	A
Non taxable	0
Taxable	1

B:

Taxable3	B
Non taxable	0
Taxable	1

C:

Taxable2	C
Non taxable	0
Taxable	1

D:

Taxable1	D
Non taxable	0
Taxable	1

E:

SICS Function	E
Normal	0
Single item cash sale	1

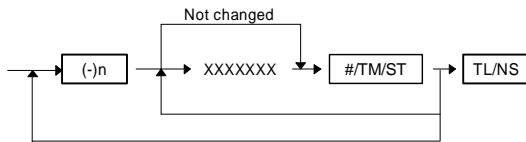
F: Limitation (Mantissa) = 1-9

G: Limitation (Exponent) = 0-8

MRS = NORMAL, 18 HALO

Note: Current setting is displayed.

3) PRICE & MODIFY PROGRAMMING for (-) KEYS.



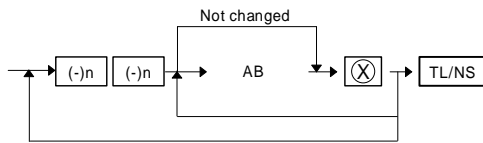
XXXXXXX: UNIT PRICE (Max. 7 digits)

MRS = 0

If the same [(-)n] key is depressed, programming mode is changed from "PRICE PROGRAMMING" to "FUNCTION PROGRAMMING" (from "FUNCTION PROGRAMMING" to "PRICE PROGRAMMING").

Note: Current price is displayed.

4) FUNCTION PROGRAMMING for (-) KEYS.



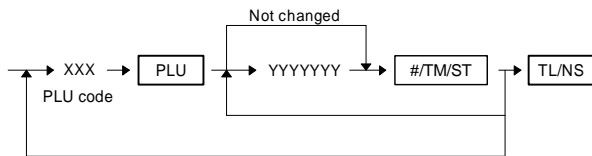
A: Limitation (Mantissa) = 1~9

B: Limitation (Exponent) = 0~7

MRS = NORMAL, 18 HALO

Note: Current setting is displayed.

5) PLU PRESET PRICE SETTING



XXX: PLU CODE (001 to 999)

YYYYYYY: UNIT PRICE (7 digits)

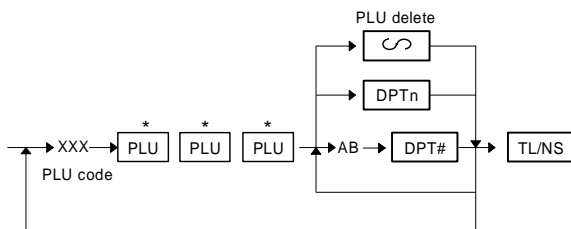
If the record of entered PLU code is not in PLU file at this programming, it will be created in PLU file.

MRS = 0

If the same [PLU] key is depressed, programming mode is changed from "PRICE PROGRAMMING" to "ATTRIBUTE PROGRAMMING" and changed to "PLU ASSOCIATION PROGRAMMING" by depressing the [PLU] key again.

Note: Current price is displayed.

6) PLU ASSOCIATION TO DEPARTMENTS



* When starting setting, press [PLU] key three times. When continuing the same setting, press it once.

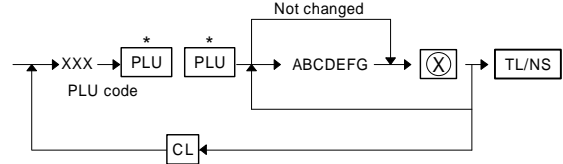
XXX: PLU CODE (001 to 999)

AB: Dept. code = 1 to 30/50

If the record of entered PLU code is not in PLU file at this programming, it will be created in PLU file.

MRS = 01

7) PROGRAMMING OF PLU/SUBDEPT



* When starting setting, press [PLU] key twice. When continuing the same setting, press it once.

XXX: PLU CODE (001 to 999)

A: Sign	A
+	0
-	1

B: Not used (Fixed at "0")

C: Taxable4 (For Swiss tax)	C
Non taxable	0
Taxable	1

D: Taxable3	D
Non taxable	0
Taxable	1

E: Taxable2	E
Non taxable	0
Taxable	1

F: Taxable1	F
Non taxable	0
Taxable	1

G: Amount entry type	G
Inhibited	0
Open	1
Preset	2
Open and preset	3
Delete	4

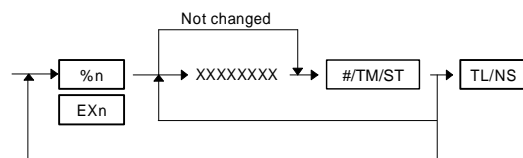
If the record of entered PLU code is not in PLU file at this programming, it will be created in PLU file.

MRS = 000002

If the same [PLU] key is depressed, programming mode is changed from "PRICE PROGRAMMING" to "ATTRIBUTE PROGRAMMING" and changed to "PLU ASSOCIATION PROGRAMMING" by depressing the [PLU] key again.

Note: Current price is displayed.

8) PROGRAMMING RATE FOR %KEY



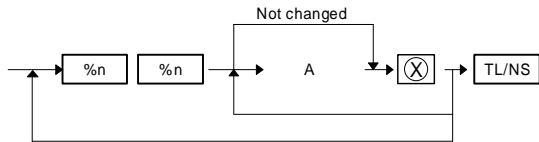
XXXXXXX: 0.01%~100.00% (%n)
0.0001~9999.9999 (EXn)

MRS = 0.00%

If the same [%n] key is depressed, programming mode is changed from "RATE PROGRAMMING" to "FUNCTION PROGRAMMING" (from "FUNCTION PROGRAMMING" to "RATE PROGRAMMING").

Note: Current price is displayed.

9) PROGRAMMING FOR %KEY



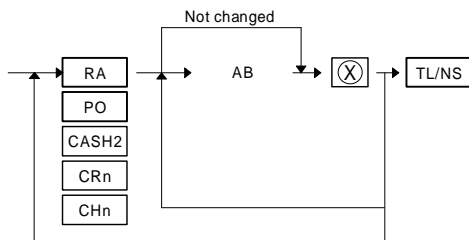
A:

Sign	A
+	0
-	1

MRS = 1

Note: Current price is displayed.

10) PROGRAMMING FOR MEDIA KEYS & FUNCTION KEYS



A: Mantissa (0 to 9)

B: Exponent (0 to 8)

MRS = 18 digits (RA, PO)
18 digits (CASH2, CR, CH)

Note: Current price is displayed.

11) DATE, TIME PROGRAMMING

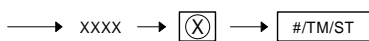


DATE: date entry format follows SRV Programming (6 digits)

TIME: 24 hour system (4 digits)

MRS = DATE: 01-01-00
TIME: 00-00

12) CONSECUTIVE NO. PROGRAMMING

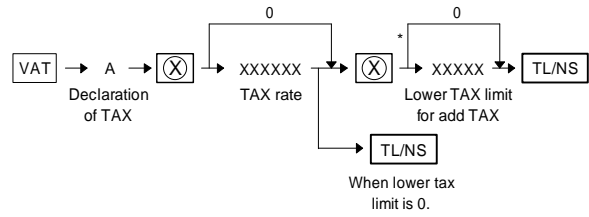


CONSECUTIVE
NO.

CONSECUTIVE NO.: 0000 to 9999 (4 digits)

MRS = 0001

13) TAX RATE PROGRAMMING



Depression of the [# / TM / ST] key at the following point means a tax delete operation.

A: TAX 1 PROGRAMMING = 1

TAX 2 PROGRAMMING = 2

TAX 3 PROGRAMMING = 3

TAX 4 (for Swiss Tax) = 4

% TAX RATE 0.0000 to 99.9999%

LOWER TAX LIMITATION max. 999.99

(This is invalid in VAT system.)

MRS = 0

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

The following categories of reports can be printed by the ECR.

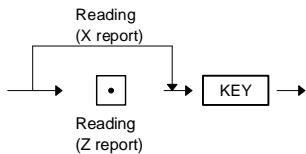
- 1) OP X/Z reports (individual clerk reports)
- 2) X1/Z1 reports (Daily sales total X and Z reports)
- 3) X2/Z2 reports (Periodic total X and Z reports)

1. Print report

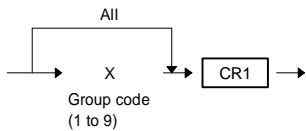
In the table below those reports marked with a circle "○" can be printed by the standard machine and those marked with an asterisk "*" can be printed when the corresponding option is added.

REPORT NAME	KEY ENTRY	MODE						DATA FOR READING	REMARK
		OP X/Z		X1/Z1		X2/Z2			
		X	Z	X1	Z1	X2	Z2		
GENERAL	TL/NS			○	○	○	○		1
DEPT/GROUP	CR1			○		○		GROUP CODE	1, 2
TRANSACTION	CH1			○		○			1
HOURLY	#/TM/ST			○	○				1
DAILY NET	#/TM/ST					○	○		1
PLU (RANGE)	PLU			○	○	○	○	PLU CODE	1, 3
PLU (DEPT)	DPTn DPT#			○		○		DEPT. CODE	1, 5
CASHIER (IND)	CSR#	○	○	○	○			(IN CODE ENTRY SYSTEM)	1
CASHIER (IND)	CH2	○	○	○	○			CASHIER CODE (in X1/Z1)	1, 4, 6
CASHIER (ALL)	RA			○	○				1

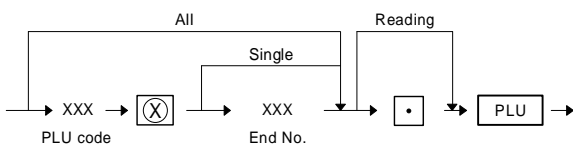
- 1 To read respective reports, it is necessary to follow the procedure below.



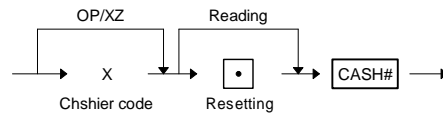
2



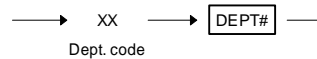
- 3 PLU code range can be specified by entering the start and end numbers according to the following procedure. When specifying a single time interval, PLU code, the start number has only to be entered.



- 4 To read respective reports, it is necessary to follow the procedure below.



- 5 To read respective reports, it is necessary to follow the procedure below.



- 6 In OP X/Z mode, [CH2] key is available instead of [CSR#] key, in case of

SRV#910: CASHIER SYSTEM = 1 hole key
and
SRV#950: [CSR#] key does not exist in the key layout.

2. Flash report

REPORT NAME	KEY ENTRY	MODE						DATA FOR READING	REMARK
		OP X/Z		X1/Z1		X2/Z2			
		X	Z	X1	Z1 3	X2	Z2 3		
NET3	TL/NS	○							
DEPT	DPTn DPT#	○						DEPT. CODE	9
DEPT/GROUP	CR1	○						GROUP CODE	7
HOURLY	#/TM/ST	○						TIME	8
CID	⊗	○							

7 To read respective reports, it is necessary to follow the procedure below.

→ Group No. → →

8 To read respective reports, it is necessary to follow the procedure below.

→ TIME → →
TIME : 24 hour system (2 digits)

9

→ XX → →
Dept. code

3. Overflow mark

If the amount 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 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.

Samples of respective reports are shown on the following pages.