DCS & Labelling Worldwide

Programming Reference

For printer model:

CL4e／CL6e／M84PRO／M-8400RVe／M-5900RVe／M-8485Se／M-8490Se／M-8459Se／M-8460Se／M-10e series



CL408e,CL412e,CL608e & CL612e



M84PRO

www satoworldwide com

Copyrights

Any unauthorized reproduction of the contents of this document, in part or whole, is strictly prohibited.

Limitation of Liability

SATO Corporation and its subsidiaries in Japan, the U.S and other countries make no representations or warranties of any kind regarding this material, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose. SATO Corporation shall not be held responsible for errors contained herein or any omissions from this material or for any damages, whether direct, indirect, incidental or consequential, in connection with the furnishing, distribution, performance or use of this material.

Specifications and contents in this document are subject to change without notice.

Trademarks

SATO is a registered trademark of SATO Corporation and its subsidiaries in Japan, the U.S. and other countries. All other trademarks are the property of their respective owners.

©2012 SATO Corporation.

All rights reserved.

Table of Contents

1. Outline 7

2. Motion Setting Default Value 7

3. Font Table 9

4. View Point of Command Manual 11

5. Control Command 13

5.1 ESC+A Data Send Start Specification 13

5.2 ESC+Z Data Send End Specification 14

5.3 ESC+Q Print Number Specification 15

5.4 ESC+ID Job ID Number Specification 16

5.5 ESC+WK Job Name Specification 17

5.6 ESC+RK RFID Write Specification 18

6. Print Position Command 20

6.1 ESC+H Print Horizontal Position Specification 20

6.2 ESC+V Print Vertical Position Specification 21

7. Modification Command 22

7.1 ESC+P Character Pitch Specification 22

7.2 ESC+L Enlargement Specification 23

7.3 ESC+PS Proportional Pitch Specification 24

7.4 ESC+PR Release Proportional Pitch Specification 25

7.5 ESC+% Rotate Specification 26

7.6 ESC+F Sequential Number Specification 27

7.7 ESC+FW Ruler and Frame Print Specification 28

7.8 ESC+(Black/White Inversion Print Specification 29

7.9 ESC+KC Kanji Code Specification 30

7.10 ESC+& Form Overlay Registration Specification 31

7.11 ESC+/ Form Overlay Recall Specification 32

7.12 ESC+0 Part Editing Function Specification 33

7.13 ESC+WD Copy within Labels (Part Copy) Specification 34

7.14 ESC+J Journal Print Specification 36

7.15 ESC+RF Font / Logo Search Print Specification 37

7.16 ESC+RM Mirror Rotate Specification 38

7.17 ESC+_D Variable Data Specification 40

7.18 ESC+_Q Label Print Number Specification 41

7.19 ESC+RI Label Size Specification 42

7.20 ESC+RW Sheet Unit Copy Number Specification 43

7.21 ESC+RC Sheet Unit Cut Number Specification 44

7.22 ESC+RT Print Order Specification 45

7.23 ESC+RE Telegraphic Message End Specification 46

7.24 ESC+RS Sheet Sending Specification 47
7.25 ESC+WS Work Shift Information Print Specification 48
7.26 ESC+RZ RFID Message Print Registration Specification 49
8. Font Command 50
8.1 ESC+XU XU Font Specification (Basic Size 5X9 dot) 50
8.2 ESC+XS XS Font Specification (Basic Size 17 X 17 dot) 52
8.3 ESC+XM XM Font Specification (Basic Size 24 X 24 dot) 54
8.4 ESC+XB XB Font Specification (Basic Size 48 X 48 dot) 56
8.5 ESC+XL XL Font Specification (Basic Size 48 X 48 dot) 58
8.6 ESC+OA OCR-A Font Specification 60
8.7 ESC+OB OCR-B Font Specification 62
8.8 ESC+$ Outline Font Shape Specification 64
8.9 ESC+$= Outline Font Print Specification 65
8.10 ESC+RD CG Font Specification 67
8.11 ESC+K1 16X16 dot Horizontal Text Flow Kanji Specification (Valid Specification of JIS or Shift JIS) 70
8.12 ESC+K2 24 X 24 dot Horizontal Text Flow Kanji Specification (Valid Specification of JIS or Shift JIS) 71
8.13 ESC+K8 16 X 16 dot Horizontal Text with Mixture of half-sized, full-sized Kanji (Valid Specification of Shift JIS) 72
8.14 ESC+K9 24 X 24 dot Horizontal Text with Mixture of Half-sized, Full-sized Kanji Specification (Valid Specification of Shift JIS) 73
8.15 ESC+k1 16X16 dot Vertical Text Flow Kanji Specification (Valid Specification of JIS or Shift JIS) 74
8.16 ESC+k2 24 X 24 dot Vertical Text Flow Kanji Specification (Valid Specification of JIS or Shift JIS) 75
8.17 ESC+k8 16X16 dot Vertical Text with Mixture of Half-sized, Full-sized Kanji Specification (Valid Specification of Shift JIS) 76
8.18 ESC+k9 24 X 24 dot Vertical Text with Mixture of Half-sized, Full-sized Kanji Specification (Valid Specification of Shift JIS) 77
8.19 ESC+T1 16 X 16 dot External Word Registration Specification 78
8.20 ESC+T2 24 X 24 dot External Word Register Specification 80
8.21 ESC+K1(K2) External Character Re-Call Horizontal Text Flow Specification 82
8.22 ESC+k1(k2) External Character Re-Call Vertical Text Flow Specification 83
9. Barcode Specification Outline 84
9.1 ESC+B Barcode Specification (Ratio 1:3) 87
9.2 ESC+D Barcode Specification (ratio 1 : 2) 89
9.3 ESC+D~ESC+d Barcode Specification (Explanation Word Selection) 91
9.4 ESC+BD Barcode Specification (ratio 2 : 5) 92
9.5 ESC+BT Barcode Ratio Registration Specification 94
9.6 ESC+BW Barcode Print Specification from Ratio Specification 95
9.7 ESC+BI UCC/EAN128 Specification <for Standard Carton ID> 98
9.8 ESC+BC CODE93 Barcode Specification 100
9.9 ESC+BG CODE128 Barcode Specification 102
9.10 ESC+BF Bookland Specification 106

9.11 ESC+BP Postnet Specification 108
10. 2-D Code Command 110
10.1 ESC+BQ QR Code 110
10.2 ESC+BV MAXI Code 135
10.3 ESC+BK PDF417 137
10.4 ESC+BX Data Matrix 140
10.5 ESC+DC Data Matrix Data Specification 141
10.6 ESC+FX Data Matrix Sequential Number Specification 142
11. Graphic Command 144
11.1 ESC+G Graphic Print Specification 144
11.2 ESC+GM BMP File Print Specification 145
11.3 ESC+GP PCX File Print Specification 146
12. System Command 147
12.1 ESC+CS Print Speed Specification 147
12.2 ESC+#E Print Darkness Specification 148
12.3 ESC+A1 Label Size Specification 149
12.4 ESC+A3 Correction Pitch Specification 151
12.5 ESC+AX Print Area Expand Specification 153
12.6 ESC+AR Print Area Standard Specification 154
12.7 ESC+EP Print End Position Specification 155
12.8 ESC+~(NULL) Multiple Cut Specification 156
12.9 ESC+~A Cut Unit Number Specification 157
12.10 ESC+~B Feed Cut Motion Specification 158
12.11 ESC+* Clear Specification 159
12.12 ESC+@ OffLine Specification 160
12.13 ESC+C Re-print Specification 161
12.14 ESC+PG Printer Motion Register Specification 162
12.15 ESC+PC Printer Motion Register Specification 165
12.16 ESC+E Automatic Line Feed Specification 168
12.17 ESC+LD User Download Specification 169
12.18 ESC+EX Memory Area Enlarge Specification 170
12.19 ESC+KM Kanji Mincho Style Specification 171
12.20 ESC+KG Kanji Gothic Style Specification 172
13. Memory Card Command 173
13.1 ESC+CC Card Slot Specification 173
13.2 ESC+BJF Memory Card Default Specification 174
13.3 ESC+BJS Memory Card Status Print Specification 175
13.4 ESC+&S Form Overlay Register Specification 176
13.5 ESC+&R Form Overlay Re-Call Specification 179
13.6 ESC+YS Format Register Specification 180
13.7 ESC+/N Field Register Specification 183

13.8 ESC+YR Format Re-Call Specification 184
13.9 ESC+/D Field Print Specification 185
13.10 ESC+GI Graphic Register Specification 186
13.11 ESC+GR Graphic Re-Call Specification 187
13.12 ESC+GT BMP File Register Specification 188
13.13 ESC+GC BMP File Re-Call Specification 189
13.14 ESC+PI PCX File Register Specification 190
13.15 ESC+PY PCX File Re-Call Specification 191
13.16 ESC+* Clear Specification (memory card) 192
13.17 ESC+BJ, ESC+BJD True Type Font Register Specification 193
13.18 ESC+BJT True Type Font Re-Call Specification 194
14. Calendar Command 195
14.1 ESC+WT Calendar Setting Specification 195
14.2 ESC+WP Calendar Calculation Specification 196
14.3 ESC+WA Calendar Print Specification 197

1. Outline

This is the Command Specification for Overseas 'e' Series.
This 'e' Series is a general name of printers of Scantro Enhance(CL408e/412e, CL608e/612e, M-8400RVe, M-84Pro, M-5900RVe), S Series (M-8485Se, M-8490Se, M-8460Se, M-8459Se), M-10e.

In this specification, Dip Switch for setting purpose is shown as DSW.

2. Motion Setting Default Value

The following is the Motion Setting Default Value
CL408e/412e

Item	Default Value
Print Speed	4 inch/sec(100mm/sec) "range: 2, 3, 4, 5, 6"
Print Darkness Range	A "range: A, B"(CL412e only)
Print Darkness	3 "range: 1, 2, 3, 4, 5"
Start Position Offset	+0
'0' Font Switch Over	YES
Kanji Code Switch Over	JIS
Proportional Pitch Specification	Proportional Pitch

CL608e/612e

Item	Default Value
Print Speed	6 inch/sec(150mm/sec) "range: 4, 6, 8"
Print Darkness Range	A
Print Darkness	2 "range: 1, 2, 3"
Start Position Offset	+0
'0' Font Switch Over	YES
Kanji Code Switch Over	JIS
Proportional Pitch Specification	Proportional Pitch

M-84Pro-2

Item	Default Value
Print Speed	6 inch/sec(150mm/sec) "range: 2, 4, 6, 8, 10"
Print Darkness Range	A
Print Darkness	3 "range: 1, 2, 3, 4, 5"
Start Position Offset	+0
'0' Font Switch Over	YES
Kanji Code Switch Over	JIS
Proportional Pitch Specification	Proportional Pitch

M-84Pro-3

Item	Default Value
Print Speed	6 inch/sec(150mm/sec) "range: 2, 4, 6, 8"
Print Darkness Range	A
Print Darkness	3 "range: 1, 2, 3, 4, 5"
Start Position Offset	+0
'0' Font Switch Over	YES
Kanji Code Switch Over	JIS
Proportional Pitch Specification	Proportional Pitch

M-84Pro-6

Item	Default Value
Print Speed	3 inch/sec(75mm/sec) "range: 2, 3, 4, 5, 6"
Print Darkness Range	A "range: A, B, C"
Print Darkness	3 "range: 1, 2, 3, 4, 5"
Start Position Offset	+0
'0' Font Switch Over	YES
Kanji Code Switch Over	JIS
Proportional Pitch Specification	Proportional Pitch

M-8400Rve

Item	Default Value
Print Speed	6 inch/sec（150mm/sec）“range: 2, 4, 6, 8, 10”
Print Darkness Range	A “range: A, B”
Print Darkness	3 “range: 1, 2, 3, 4, 5”
Start Position Offset	+0
‘0’ Font Switch Over	YES
Kanji Code Switch Over	JIS
Proportional Pitch Specification	Proportional Pitch

M-5900RVe

Item	Default Value
Print Speed	3 inch/sec（75mm/sec） “range: 2, 3, 4, 5, 6”
Print Darkness Range	A
Print Darkness	3 “range: 1, 2, 3, 4, 5”
Start Position Offset	+0
‘0’ Font Switch Over	YES
Kanji Code Switch Over	JIS
Proportional Pitch Specification	Proportional Pitch

M-10e

Item	Default Value
Print Speed	5 inch/sec（125mm/sec）“range: 4, 5, 6”
Print Darkness Range	A
Print Darkness	3 “range: 1, 2, 3, 4, 5”
Start Position Offset	+0
‘0’ Font Switch Over	YES
Kanji Code Switch Over	JIS
Proportional Pitch Specification	Proportional Pitch

3. Font Table

When installation font is used, specify the ESC+(font type command).

Font	Font Type	Pitch	Printer Model
OA（8dot/mm）	Bit Map「OCR-A font」 15×22 dot	Fixed	All Models
OB（8dot /mm）	Bit Map「OCR-B font」 20×24 dot	Fixed	All Models
OA（12dot /mm）	Bit Map「OCR-A font」 22×33 dot	Fixed	All Models
OB（12dot /mm）	Bit Map「OCR-B font」 30×36 dot	Fixed	All Models
OA（24dot /mm）	Bit Map「OCR-A font」 44×66 dot	Fixed	M-84Pro only
OB（24dot /mm）	Bit Map「OCR-B font」 60×72 dot	Fixed	M-84Pro only
XU	Bit Map「XU font」 5× 9 dot	Fixed / Proportional	All Models
XS	Bit Map「XS font」 17×17 dot	Fixed / Proportional	All Models
XM	Bit Map「XM font」 24×24 dot	Fixed / Proportional	All Models
XB	Bit Map「XB font」 48×48 dot	Fixed / Proportional	All Models
XL	Bit Map「XL font」 48×48 dot	Fixed / Proportional	All Models
K1	Bit Map「K1 font」 16×16 dot	Fixed	All Models※1
K2	Bit Map「K2 font」 24×24 dot	Fixed	All Models※1
$ (specify shape) $= (specify print)	Outline Font	Fixed / Proportional	All Models
RD	CG Font「CG Times」	Fixed / Proportional	All Models
	CG Font「CG Triumvirate」	Fixed / Proportional	All Models

※1 The Option Kanji PCB (MEM PCB with Kanji ROM, Main PCB with Kanji ROM) is required.

Enlarge Font

The installation font is enlargeable from 1~12 times.

The internal bitmap is enlargeable from its standard size of 1~12 times.

For example, if the standard size is enlarged to 3 times with the width 5dot X height 9dot, it becomes at width 15dot X height 27 dot.

Below is the parameter filling method of printed character at height X enlargement ratio, width X enlargement ratio.

width X enlargement ratio = width parameter setting value

height X enlargement ratio = height parameter setting value

Enlarge Specification <L> is controlling the font size of enlargement. The parameter is specified by the ratio.

For instance, if it is specified as <L>0304, font will be set at horizontal direction X 3 times and vertical direction X 4 times bigger than the standard size.

Character pitch is also enlarged if Expand Specification Command is specified.

Fixed Pitch and Proportional Pitch

XU~XL Font, Outline Font, CG Font can select Fixed Pitch and Proportional Pitch Printing.

Proportional Pitch Specification can be set at proportional pitch specification <PS>, proportional pitch release specification<PR>,or printer's LCD advance mode.

The proportional pitch size is different depends on font type. If proportional pitch is specified, the width of alphanumeric will become smaller.

The character width of fixed pitch is based on the font size respectively.

Difference between Outline Font and Bit Map Font

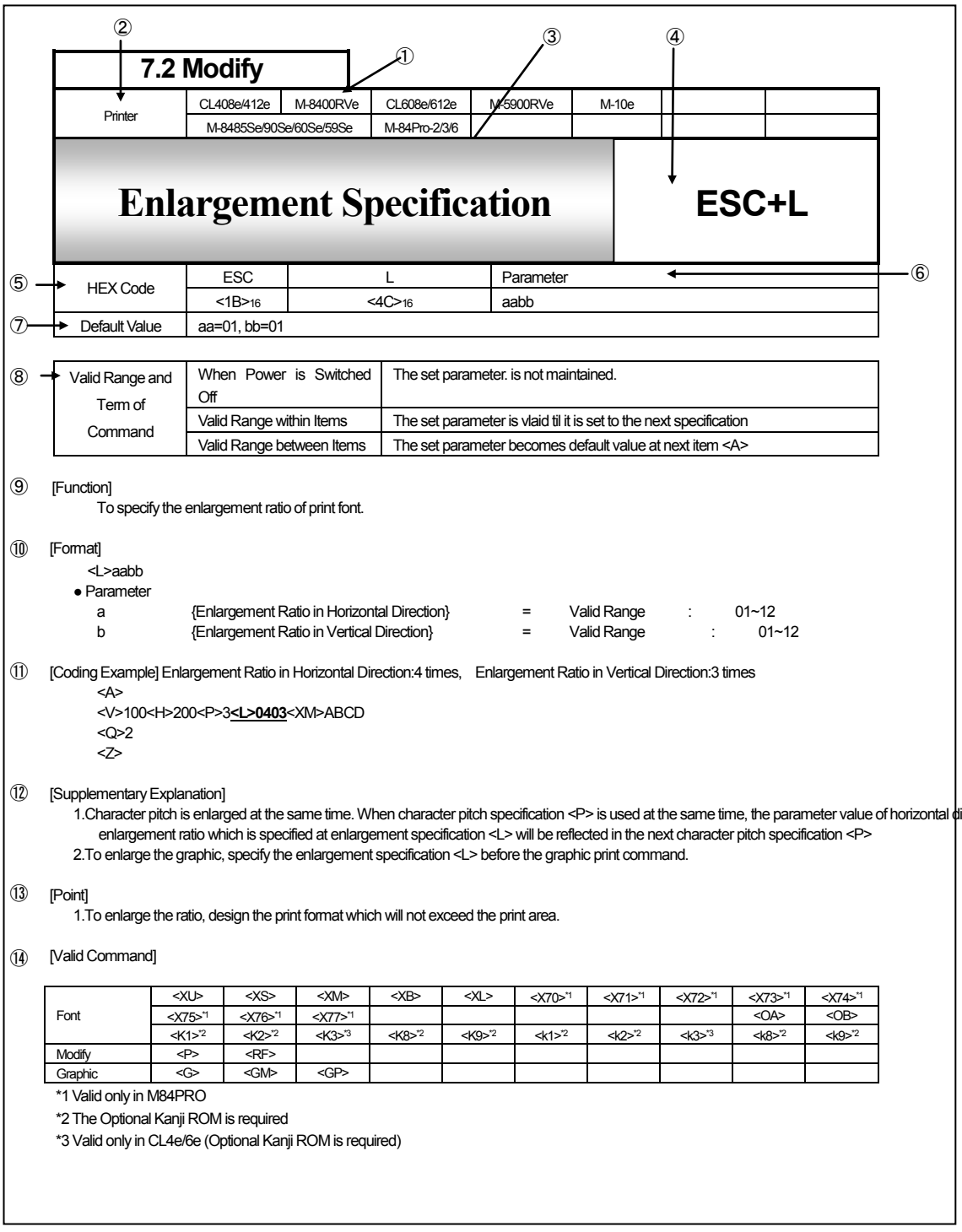
Bitmap font is internally installed at a fixed font height and width size. The actual height of bitmap font is slightly bigger than the width.

Bitmap font is the biggest size of font matrix.

The reference for font type and font size is at the previous page of Font Table.

Set the height and width of the outline font equally, a well-balanced font can be generated by using the Smooth Scaling Argorithm Function of the printer. In addition, many font styles such as character decoration, reverse plate, shadow and italics can be selected.

4. View Point of Command Manual



② 7.2 Modify ①

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

③ Enlargement Specification ④ ESC+L

⑤ HEX Code	ESC	L	Parameter ⑥
	<1B>16	<4C>16	aabb
⑦ Default Value	aa=01, bb=01		

⑧ Valid Range and Term of Command	When Power is Switched Off	The set parameter. is not maintained.
	Valid Range within Items	The set parameter is vlaid til it is set to the next specification
	Valid Range between Items	The set parameter becomes default value at next item <A>

⑨ [Function]
To specify the enlargement ratio of print font.

⑩ [Format]
<L>aabb
● Parameter
a {Enlargement Ratio in Horizontal Direction} = Valid Range : 01~12
b {Enlargement Ratio in Vertical Direction} = Valid Range : 01~12

⑪ [Coding Example] Enlargement Ratio in Horizontal Direction:4 times, Enlargement Ratio in Vertical Direction:3 times
<A>
<V>100<H>200<P>3**<u><L>0403</u>**<XM>ABCD
<Q>2
<Z>

⑫ [Supplementary Explanation]
1.Character pitch is enlarged at the same time. When character pitch specification <P> is used at the same time, the parameter value of horizontal direction enlargement ratio which is specified at enlargement specification <L> will be reflected in the next character pitch specification <P>
2.To enlarge the graphic, specify the enlargement specification <L> before the graphic print command.

⑬ [Point]
1.To enlarge the ratio, design the print format which will not exceed the print area.

⑭ [Valid Command]

Font	<XU>	<XS>	<XM>	<XB>	<XL>	<X70>*1	<X71>*1	<X72>*1	<X73>*1	<X74>*1
	<X75>*1	<X76>*1	<X77>*1						<OA>	<OB>
	<K1>*2	<K2>*2	<K3>*3	<K8>*2	<K9>*2	<k1>*2	<k2>*2	<k3>*3	<k8>*2	<k9>*2
Modify	<P>	<RF>								
Graphic	<G>	<GM>	<GP>							

*1 Valid only in M84PRO
*2 The Optional Kanji ROM is required
*3 Valid only in CL4e/6e (Optional Kanji ROM is required)

① Show the classification of Command
It is classified in “Control”, “Print Position”, “Modify”, “Font”, “Barcode”, “2-D Code”, “Graphic”, “System”, “Memory Card”, “Calender”.

② To identify Command Valid / Invalid for each model
When the command is invalid, it will be shown as{ }

e.g.) following table shows when the command is valid only at M-10e

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

③ To show command name

④ To show command code

⑤ To show command by HEX Code

⑥ To show parameter described in the command, ()shows that “valid to omit”.

⑦ To show the default value of command

⑧ To show the valid range of command
- ●When power is switched off
  - (1)Set parameter will be maintained
  - (2)Set parameter will not be maintained
  - (3)Set command will not be maintained

- ●Valid range within Items
  - (1)The set parameter is valid until the next specification is made
  - (2)The set parameter becomes invalid
  - (3)The set command becomes invalid

- ●Valid range between Items
  - (1)The set parameter becomes default value at the next item <A>
  - (2)The set parameter becomes valid until the next specification is made
  - (3)The set parameter becomes invalid
  - (4)The set command becomes invalid.

⑨ To explain the outline of command function

⑩ To explain command and required parameter
<L>aabb and command of ESC+L(<1B>$_{16}$<4C>$_{16}$)reflects 2 types of parameter aa or bb.

⑪ To explain command example
If the content of coding example is outputted from printer connected with RS-232C, the following will appear if programming is done by BASIC language.

```
10  ESC$=CHR$（&H1B）
20  OPEN  “COM1：9600，N，8，1，RS，BIN”  FOR  OUTPUT  AS  #1
30  PRINT  #1，ESC$；“A”；
40  PRINT  #1，ESC$；“V100”；ESC$；“H200”；
50  PRINT  #1，ESC$；“P3”；ESC$；“L0403”；
60  PRINT  #1，ESC$；“XMABCD”；
70  PRINT  #1，ESC$；“Q2”；
80  PRINT  #1，ESC$；“Z”；
90  CLOSE  #1
100  END
```

⑫ To make supplementary explanation on command function and meaning of parameter.

⑬ To explain the important point and control when command is used.

⑭ To explain affected command when command is used.

5. Control Command

5.1 Control

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Data Send Start Specification	ESC+A

HEX Code	ESC	A	Parameter
	<1B>16	<41>16	NIL
Default Value	NIL		

Valid Range and Terms of Command	When Power is Switched Off	The set command is not maintained
	Valid Range within Items	The set command becomes invalid
	Valid Range between Items	The set command becomes invalid

[Function]
To specify Data Send Start.

[Format]
<A>

[Coding Example]
<A>
<V>100<H>200<P>2<L>0202<XM>ABCD
<Q>2
<Z>

[Supplementary Explanation]
1.To show item starts, must be used at the beginning of the item.
2.Data Send Start Specification <A> and Data Send End Specification <Z> must be used as a pair.

[Point]
1.All of the command setting value excluded one portion of the system command will return to the default value.
2.Print motion is inactive when Data Send Start Specification <A> is not specified.

5.2 Control

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Data Send End Specification

ESC+Z

HEX Code	ESC	Z	Parameter
	$<1B>_{16}$	$<5A>_{16}$	NIL
Default Value	NIL		

Valid Range and Terms of Command	When Power is Switched Off	The set command is not maintained
	Valid Range within Items	The set command becomes invalid
	Valid Range between Items	The set command becomes invalid

[Function]
To specify Data Send End

[Format]
<Z>

[Coding Example]
<A>
<V>100<H>200<P>2<L>0202<XM>ABCD
<Q>2
<Z>

[Supplementary Explanation]
1.To show the completion of item, must be used at the end of the item.
2.Data Send Start Specification <A> and Data Send End Specification <Z> must be used as a pair.

[Point]
1.Print motion is inactive when Data Send End Specification <Z> is not specified.

5.3 Control

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Print Number Specification

ESC+Q

HEX Code	ESC	Q	Parameter
	<1B>16	<51>16	aaaaaa
Default Value	aaaaaa=1		

Valid Range and Terms of Command	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify number of printing

[Format]

<Q>aaaaaa

●Parameter

a {Number to print} = Valid Range : 1~999999

[Coding Example] Print Number Specification:2 pieces

<A>

<V>100<H>200<P>2<L>0202<XM>ABCD

<Q>2

<Z>

[Supplementary Explanation]

1.As 1 print content that is specified by Data Send Start Specification <A> ~ Data Send End Specification <Z>, several same content printing will be specified.

2.Must be used before data send complete specification <Z>.

[Point]

1.Number of printing is specified, even if same label is printed, if Sequential Number Specification <F> is used, only the sequential number value set at the field portion will be printed out.

2.If it is combined with Multiple Cut Specification <~>, print numbers is printed out by calculation from print number times cut specified value.

5.4 Control

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Job ID Number Specification

ESC+ID

HEX Code	ESC	ID	Parameter
	<1B>16	<49>16<44>16	aa
Default Value	aa=<20>16		

Valid Range and Terms of Command	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify Job ID No for status send

[Format]

<ID>aa

●Parameter

a {Job ID No} = Valid Range : 00~99

[Coding Example] Job ID No:01

```
<A>
<ID>01
<V>200<H>100<P>0<$>B,100,100,6
<$=>SATOPRINTER
<Q>2
<Z>
```

[Supplementary Explanation]

1.When status return is used on interface protocol, the specified Job ID No can be set at the telegraphic status.

2.Status can be confirmed by sending status request (ENQ).

3.Program it within items and use it whle printing is performed by Data Send Start Specification <A> ~ Data Send End Specification <Z>.

[Point]

1.Status return interface protocol is valid when status request (ENQ) during printing(QTY≠0, includes when Offline and Error occurs) is received.

2.At the status return interface protocol, if status request (ENQ) is returned not during printing, (QTY=0, no received data when power is switched on), set a space (20H) at the status and then return it.

3.Within items of Data Send Start Specification<A> ~ Data Send Complete Specification <Z>, the final specified value is valid when Job ID Number Specification <ID> is used more than twice.

4.The details can be referred to “Interface Specification”

5.5 Control

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Job Name Specification

ESC+WK

HEX Code	ESC	WK	Parameter
	<1B>16	<57>16<4B>16	aaaaaaaaaaaaaaaa
Default Value	aaaaaaaaaaaaaaaa=<20>16		

Valid Range and Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes valid until the next specification is made
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify Job Name for status return

[Format]
<WK>aaaaaaaaaaaaaaaa
●Parameter
a {Job Name} = ASCII Code 16 digits, shift JIS Kanji 8 digits

[Coding Example] Job Name:SATO
<A>
<u><WK>SATO</u>
<V>200<H>100<P>0<$>B,100,100,6
<$=>SATOPRINTER
<Q>2
<Z>

[Supplementary Explanation]
1.If status 4 is used on interface protocol, the specified Job Name can be set at the telegraphic status.
2.Confirm the status at every ouput of status request (ENQ)
3.Program it within items and use it while printing is performed by using Data Send Start Specification <A> ~ Data Send Complete Specification <Z>.
4.Can be used by combining with Job ID No Specification <ID>.

[Point]
1. At the status return interface protocol , it is valid if status request (ENQ) is received during printing (QTY≠0, includes Offline, error).
2. At the status return interface protocol, if status request (ENQ) is received not during printing (QTY=0, received data is not available
when power is switched on), set the space (20H) at the status and then return it.
3. Within the Data Send Start Specification <A> ~ Data Send Complete Specification <Z>, the final specified value becomes valid when Job Name Specification <WK> is used more than twice.
4. The details can be referred to the “Interface Specification”.

5.6 Control

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

RFID Write Specification

ESC+RK

HEX Code	ESC	RK	Parameter
	<1B>16	<52>16<4B>16	a(,b)(,c),Dmm,n~n
Default Value	b=0, c=0		

Valid Range and Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify data to be written in RFID Tag

[Format]

<RK>a(,b)(,c),Dmm,n~n

●Parameter

a	{Tag Type Specification}	=	0 :	I-CODE(max 48 byte writable)
			1 :	TAG-IT (max 32 byte writable)
b	{RFID Tag Error Ignore Specification}omittable	=	0 :	No Specification when omission 0
			1 :	With Specification
			2~9 :	RFID Tag Error Ignore Specification Print Number
c	{Write Protector Specifcation}omittable	=	0 :	No Specification when omission 0
			1 :	With Specification(valid only when a=1)
m	{Write Data Size Specification}	=	valid range :	0~48(byte)(when it is a=1)
			:	0~32(byte)(when it is a=2)
n	{Write Data}			

[Coding Example 1] Record 13 byte of characters {4912345678904}on the Tag-it tag(omit b,c)

<A>
<V>50<H>50<BD>3020654912345678904
<RK>1,D13,4912345678904
<Q>2
<Z>

[Coding Example 2] Record 13 byte of characters {4912345678904}on the Tag-it tag, ignore 3 pieces of errors(omit c)

<A>
<V>50<H>50<BD>3020654912345678904
<RK>1,3,D13,4912345678904
<Q>2
<Z>

[Coding 3] Record 13 byte of characters {4912345678904}on the Tag-it tag, error ignore is not available, write protector is available.

<A>
<V>50<H>50<BD>3020654912345678904
<RK>1,0,1,D13,4912345678904
<Q>2
<Z>

[Supplementary Explanation]

1.Valid only with Optional installed model of CL408e/412eRFID.

2.RFID Write Specification <RK> operates as printer's print motion, the following motions of Continuous Motion, Cutter Motion, (Motion 1), Dispense Motion (Motion 1) and Tear Off Motion is applicable. However, if tear off motion is specified, information return becomes invalid even if it is writable to the tag.

3. RFID Write Specification <RK> cannot be specified at multiple between Data Send Start Specification <A> ~ Data Send Complete Specification <Z>. Use STX+<A> and <Z>+ETX as a pair. The motion is not stable when STX and ETX is omitted.

4.When RFID Tag Error Ignore is specified, print job will be re-started automatically when RFID Tag Error occur. After the re-start, the data as same as the sent-data will be sent when RFID Tag Error occur, the quantity specified at Print Label Specification <Q> will not be deducted.

When RFID Tag Error Ignore Specification is set at 2~9, the specified quantity of RFID Tag Error will be ignored. If specified quantity of RFID Tag Error continue to appear, print job will be stopped with error. To stop auto printing temporarily when RFID tag error occurs, press LINE key when RFID TAG ERROR is displaying on the LCD screen, set to Offline status, clear all of the received data.

5.If specification of parameter b is omitted, RFID Tag Error Ignore Specification will not be performed.

6.Once specification of parameter c is omitted, write protector specification will not be executed. If specification of parameter b is omitted, the specification of parameter c is not able to be performed.

7.If write protector is specified, data which is written to the Tag will be protected. Please be noted that once the Tag is protected, the re-write of the Tag is not able to be executed. And if data re-write is performed by printer to the protected Tag data, RFID Tag Error will appear.

8.Only TAG-IT can be applied on Write Protector Specification. If write protector is specified against I-CODE tag, command error will appear.

9.Information of sequential and calendar cannot be written in RFID. It can be used with combination with Job ID Specification <ID>.

10. The RFID detail motion can be referred to "RFID Kit Option Specification".

6. Print Position Command

6.1 Print Position

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Print Horizontal Position Specification	**ESC+H**

HEX Code	ESC	H	Parameter
	<1B>16	<48>16	aaaa
Default Value	aaaa=1		

Valid Range and Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next parameter is made
	Valid Range between Items	The set parameter becomes default value at next item <A>

[Function]

To specify the horizontal direction print position from the print start position by dot

[Format]

<H>aaaa

●Parameter

a {Print Horizontal Position Specification} = Valid Range: refer to the table below

[Coding Example] Print Horizontal Position:200 dot

<A>
<V>100**<H>200**<P>2<L>0202<XM>ABCD
<Q>2
<Z>

[Supplementary Explanation]

1.To specify the start horizontal position for character, barcode, borders, graphic etc.

[Point]

1.Content (character, barcode, graphic etc) exceeds print valid range will not be printed.

[Parameter Default Value and Valid Range]

Model	Default Value	Valid Range (dot)	Model	Default Value	Valid Range (dot)
CL408e	1	1～832	CL412e	1	1～1248
M-8400RVe	1	1～832	CL612e	1	1～1984
CL608e	1	1～1216			
M-5900RVe	1	1～896	M-8490Se	1	1～1344
M-8485Se	1	1～1024	M-84Pro-3	1	1～1248
M-8460Se	1	1～1216	M-84Pro-6	1	1～2496
M-8459Se	1	1～896			
M-84Pro-2	1	1～832			

[Valid Command]

Modify	<WD>	<FW>	<(>	<RF>						
Font	<XU>	<XS>	<XM>	<XB>	<XL>					
									<OA>	<OB>
	<RD>	<$=>	<K1>*1	<K2>*1		<K8>*1	<K9>*1	<k1>*1	<k2>*1	
	<k8>*1	<k9>*1								
Barcode	<B>	<BC>	<BG>	<BI>	<BP>	<D>	<D><d>	<BD>	<BT>	<BW>
2-D Code	<BK>	<BQ>	<BV>	<BX>	<VC>					
Graphic	<G>	<GM>	<GP>							
Memory Card	<GR>	<GC>	<PY>							

*1 Requires the Option Kanji ROM.

6.2 Print Position

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Print Vertical Position Specification — ESC+V

HEX Code	ESC	V	Parameter
	<1B>16	<56>16	aaaa
Default Value	aaaa=1		

Valid Range and Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made
	Valid Range between Items	The set parameter becomes default value at the next item <A>

[Function]
The print position from start position at vertical direction is specified by dot

[Format]
<V>aaaa
● Parameter
a {Print Vertical Position Specification} = Valid Range: refer to the table below

[Coding Example] Print Vertical Position: 100 dot
<A>
<V>100<H>200<P>2<L>0202<XM>ABCD
<Q>2
<Z>

[Supplementary Explanation]
1.To specify the start vertical position for character, barcode, borders, graphic etc.

[Parameter Default Value and Valid Range]

Model	Default Value	Valid Range (dot)		Model	Default Value	Valid Range (dot)	
		Standard Print Area	Expand Print Area			Standard Print Area	Expand Print Area
CL408e	1	1～1424	1～2848	CL412e	1	1～2136	1～4272
M-8400RVe	1	1～1424	1～2848	CL612e	1	1～2136	1～4272
CL608e	1	1～1424	1～2848				
M-5900RVe	1	1～1424	1～2848	M-8490Se	1	1～2136	1～4272
M-8485Se	1	1～1424	1～2848	M-84Pro-3	1	1～2136	1～4272
M-8460Se	1	1～1424	1～2848	M-84Pro-6	1	1～4272	1～8544
M-8459Se	1	1～1424	1～2848				
M-84Pro-2	1	1～1424	1～2848				

[Point]
1.Content (character, barcode, graphic etc) exceeds print valid area will not be printed.

[Valid Command]

Modify	<WD>	<FW>	<(>	<RF>						
Font	<XU>	<XS>	<XM>	<XB>	<XL>					
									<OA>	<OB>
	<RD>	<$=>	<K1>*1	<K2>*1		<K8>*1	<K9>*1	<k1>*1	<k2>*1	
	<k8>*1	<k9>*1								
Barcode	<B>	<BC>	<BG>	<BI>	<BP>	<D>	<D><d>	<BD>	<BT>	<BW>
2-D Code	<BK>	<BQ>	<BV>	<BX>	<VC>					
Graphic	<G>	<GM>	<GP>							
Memory Card	<GR>	<GC>	<PY>							

*1 Requires Option Kanji ROM.

7. Modification Command

7.1 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Character Pitch Specification	ESC+P

HEX Code	ESC	P	Parameter
	<1B>16	<50>16	aa
Default Value	aa=2		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made
	Valid Range between Items	The set parameter becomes default value at the next item <A>.

[Function]

Character pitch is specified by dot number.

[Format]

<P>aa

● Parameter

a {Character Pitch} = Valid Range: 00~99 (dot)

[Coding Example] Character Pitch:10

<A>

<V>100<H>200**<P>10**<L>0202<XM>ABCD

<Q>2

<Z>

[Supplementary Explanation]

1. Character pitch refers to character gap as well as font gap when selecting font or barcode.
2. The specified character pitch will expand depends on ratio of Enlargement Specification <L>.
3. Even if new line code "CR" is specified at Auto New Line Specification <E>, it maintains as original without returning to default value. It returns to default value by selecting Data Send Start Specification <A>.
4. By specifying Character Pitch Specification <P> right before specifying the barcode, pitch command becomes valid towards barcode module. Barcode entitled to is : NW-7·CODE39·Industrial 2 of 5·Matrix 2 of 5
   Details can be referred to "9.Barcode Specification Outline (3) Character Pitch Gap".
5. Data specification except figure or over-digit is specified, it becomes as the default value.

[Valid Command]

Modify	<RF>									
Font	<XU>	<XS>	<XM>	<XB>	<XL>					
									<OA>	<OB>
	<RD>	<$=>	<K1>*1	<K2>*1		<K8>*1	<K9>*1	<k1>*1	<k2>*1	
	<k8>*1	<k9>*1								
Barcode	<B>	<D>	<D><d>	<BD>	<BT>	<BW>				

*1 Requires Option Kanji ROM

7.2 Modify

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Enlargement Specification

ESC+L

HEX Code	ESC	L	Parameter
	<1B>16	<4C>16	aabb
Default Value	aa=01, bb=01		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made
	Valid Range between Items	The set parameter becomes default value a the next item <A>

[Function]

To specify enlargement ratio of print font.

[Format]

<L>aabb

● Parameter

a {Horizontal Direction Enlargement Ratio} = Valid Range: 01~12

b {Vertical Direciton Enlargement Ratio} = Valid Range: 01~12

[Coding Example] Enlargement Ratio at Horizontal Direction : 4 times; Enlargement Ratio at Vertical Direction : 3 times

<A>
<V>100<H>200<P>3**<L>0403**<XM>ABCD
<Q>2
<Z>

[Supplementary Explanation]

1.Character pitch enlarge at the same time, when Character Pitch Specification <P> is used together, the parameter value of horizontal direction enlargement ratio which is specified at Enlargement Specification <L> will be reflected at Character Pitch Specification <P> which is set at the following.

2.If graphic is enlarged, specify the Enlargement Specification <L> right before the graphic print command.

[Point]

1.To expand the enlargement ratio, design the print format not to exceed the print area.

[Valid Command]

Modify	<P>	<RF>								
Font	<XU>	<XS>	<XM>	<XB>	<XL>					
									<OA>	<OB>
	<RD>	<$=>	<K1>*1	<K2>*1		<K8>*1	<K9>*1	<k1>*1	<k2>*1	
	<k8>*1	<k9>*1								
Graphic	<G>	<GM>	<GP>							
Memory Card	<GR>	<GC>	<PY>							

*1 Requires Option Kanji ROM

7.3 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Proportional Pitch Specification

ESC+PS

HEX Code	ESC	PS	Parameter
	<1B>16	<50>16<53>16	NIL
Default Value	NIL		

Valid Range & Terms of Command	When Power is Switched Off	The set command is not maintained
	Valid Range within Items	The set command is valid until the next specification is made
	Valid Range between Items	The set command becomes valid

[Funciton]

To specify the proportional pitch

[Format]

<PS>

[Coding Example]

<A>
<PS>
<V>100<H>200<P>2<L>0202<XM>ABCD
<Q>2
<Z>

[Supplementary Explanation]

1.When Proportional Pitch Specification <PS> is specified, the width of alphanumeric becomes narrower than before it is specified.

2.Proportional print will not be conducted when data that is not specified is set.

3. Although the setting status of Proportional Pitch Specification <PS> is default at printer initial status, the setting value (fixed/proportional) of default at printer LCD Advance Mode Setting still can be specified.

[Valid Command]

Modify	<RF>									
Font	<XU>	<XS>	<XM>	<XB>	<XL>					
				<RD>	<$=>					

7.4 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Release Proportional Pitch Specification

ESC+PR

HEX Code	ESC	PR	Parameter
	<1B>16	<50>16<52>16	NIL
Default Value	NIl		

Valid Range & Terms of Command	When Power is Switched Off	The set command is not maintained
	Valid Range within Items	The set command is valid until the next specification is made
	Valid Range between Items	The set command becomes valid

[Funciton]

To specify the release of proportional pitch

[Format]

<PR>

[Coding Example]

<A>
<PR>
<V>100<H>200<P>2<L>0202<XM>ABCD
<Q>2
<Z>

[Supplementary Example]

1.Although the setting status 'proportional pitch' of Proportional Pitch Specification <PS> is default at printer initial status, the setting value (fixed/proportional) of default at printer LCD advance mode setting still can be specified.

[Valid Command]

Modify	<RF>									
Font	<XU>	<XS>	<XM>	<XB>	<XL>					
				<RD>	<$=>					

7.5 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Rotate Specification

ESC+%

HEX Code	ESC	%	Parameter
	<1B>16	<25>16	a
Default Value	a=0		

Valid Range & Terms of Command		
	When Power is Switched Off	The set command is not maintained
	Valid Range within Items	The set command is valid until the next specification is made
	Valid Range between Items	The set parameter becomes default value at next item <A>

[Function]

To specify font and barcode rotation at anti-clock wise direction

[Format]

<%>a

● Parameter

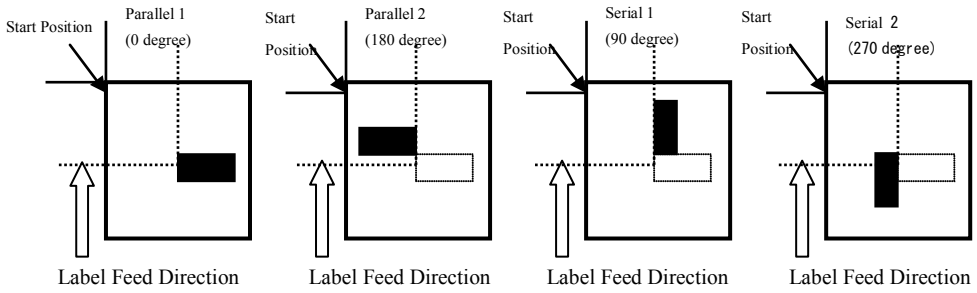
a {Rotate Direciton} = 0 : Parallel 1(0 degree) 1 : Serial 1(90 degree)
2 : Parallel 2(180 degree) 3 : Serial 2(270 degree)

[Coding Example] Font Rotation: 180 degree, barcode rotation: parallel 1

```
<A>
<%>2
<V>100<H>400<P>3<L>0403<XM>ABCD
<%>1
<V>400<H>200<BD>103160*123*
<Q>2
<Z>
```

[Supplementary Explanation]

1. The position specification of Print Vertical Position Specification <V> or Print Horizontal Position Specification <H> are absolute value from the start point.
2. When the value of parameter a is 4~9, it will become command error and ignored. In case of besides figures, it is ignored and will be printed at 0 degree.
3. Be aware of any barcode blurring when printing barcode with serial 1 or 2. And slow down the print speed when conducting rotation print using serial 1 or 2.



[Valid Command]

Modify	<RF>									
Font	<XU>	<XS>	<XM>	<XB>	<XL>					
									<OA>	<OB>
	<RD>	<$=>	<K1>*1	<K2>*1		<K8>*1	<K9>*1	<k1>*1	<k2>*1	
	<k8>*1	<k9>*1								
Barcode	<B>	<BC>	<BG>	<BI>	<BP>	<D>	<D><d>	<BD>	<BT>	<BW>
2-D Code	<BK>	<BQ>	<BV>	<VC>						
Graphic	<G>	<GM>	<GP>							
System	<E>									
Memory Card	<GR>	<GC>	<PY>							

*1 Requires Option Kanji ROM

7.6 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Sequential Number Specification — ESC+F

HEX Code	ESC	F	Parameter
	<1B>16	<46>16	aaaabcccc(,dd,ee,f)
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

Set before the data specification command of font or barcode, print the specified data sequentially.

[Format]

<F>aaaabcccc(,dd,ee,f)

● Parameter

a	{Print Number Specification of the Identical Information}	=	valid range	:	1~9999
b	{Increase / Decrease Specification}	=	+	:	Addition
			-	:	Reduction
c	{Setting of Increase / Decrease Value}	=	valid range	:	1~9999
d	{Sequential Number Effective Digit}	=	valid range	:	1~99 omit 8 (omittable)
e	{Low Level Invalid Digit}	=	valid range	:	0~99 omit 0 (omittable)
f	{Decimal or Hex Sequential Number Specification}	=	valid range	:	0~99 omit 0 (omittable)
			0	:	Decimal omit 0 (omittable)
			1	:	HEX

[Coding Example] Print Number of Identical Information:1, increase/decrease specification:+, increase/decrease value:1, sequential number digit:5, low level invalid digit:0

```
<A>
<V>100<H>100<P>2<L>0202
<F>1+1,5,0<XU>10000
<Q>2
<Z>
```

[Supplementary Explanation]

1. The sequential number specification position for 1 format can be set until 8.
2. The black / white inversion <(>is not applicable to the sequential number.
3. The automatic line feed <E> is not applicable.

[Valid Command]

Font	<XU>	<XS>	<XM>	<XB>	<XL>					
									<OA>	<OB>
Barcode	<B>	<BC>	<BG>	<BI>	<BP>	<D>	<D><d>	<BD>	<BT>	<BW>

7.7 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Ruler and Frame Print Specification — ESC+FW

HEX Code	ESC	FW	Parameter
	<1B>16	<46>16<57>16	Ruler aabcccc Frame aabbVccccHdddd
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify the print ruler and frame print

[Format]
<FW>aabcccc Frame Print
● Parameter
a {Line Width} = valid range : 02~99 (dot)
b {Specification of Horizontal and Vertical Direction} = H:Horizontal Direction
V:Vertical Direction
c {Frame Print} = valid range : refer to the following table

<FW>aabbVccccHdddd Ruler Print
●Parameter
a {Vertical Line Width} = valid range : 02~99(dot)
b {Horizontal Line Width} = valid range : 02~99(dot)
c {Vertical Line Length} = valid range : refer to the following table
d {Horizontal Line Length} = valid range : refer to the following table

[Coding Example] Ruler Print Line Width:4, horizontal direction specification, ruler line length:400
Frame Line Line Width:8, horizontal line width:8, vertical line length:300, horizontal line length:400
<A>
<V>100<H>200**<FW>04H400**
<V>300<H>200**<FW>0808V300H400**
<Q>2
<Z>

[Supplementary Explanation]
1.If print start position exceed print valid range, it will become command error and stop print.

[Valid Range]

Model	Valid Range : Horizontal Line Length (dot)	Valid Range : Vertical Line Length (dot)
CL408e M-8400RVe M-84Pro-2	1～832	1～1424
CL412e M-84Pro-3	1～1248	1～2136
CL608e M-8460Se	1～1216	1～1424
CL612e	1～1984	1～2136
M-5900RVe M-8459Se	1～896	1～1424
M-10eDT/TT	1～3200	1～3600
M-8485Se	1～1024	1～1424
M-8490Se	1～1344	1～2136
M-84Pro-6	1～2496	1～4272

7.8 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Black/White Inversion Print Specification — ESC+(

HEX Code	ESC	(	Parameter
	<1B>16	<28>16	aaaa,bbbb
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify black/white inversion printing

[Format]

<(>aaaa,bbbb

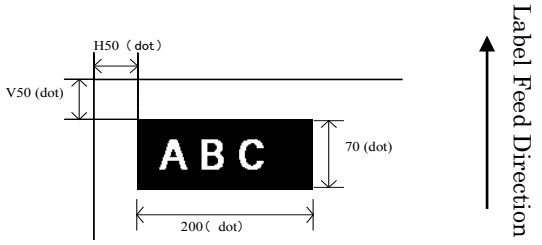
- Parameter

a {Inverse Area of Horizontal Direction Specification} = valid range : refer to the following table

b {Inverse Area of Vertical Direction Specification} = valid range : refer to the following table

[Coding Example] Horizontal Direction Inverse Area:200, Vertical Direction Inverse Area:70

<A>
<V>50<H>50<P>2<L>0202<XM>ABC
<V>50<H>50**<(>200,70**
<Q>2
<Z>



[Supplementary Explanation]

1.Print start position specify Print Horizontal Position Specification <H> and Print Vertical Position Specification <V> before the Black/White Inversion Print Specification <(>.

2.If print start positin exceed print valid range, it will become command error and stop printing.

[Point]

1.Set the black print portion not exceed 30% of overall label.

[Valid Range]

Model	Valid Range : Horizontal Line Length (dot)	Valid Range : Vertical Line Length (dot)
CL408e M-8400RVe M-84Pro-2	1～832	1～1424
CL412e M-84Pro-3	1～1248	1～2136
CL608e M-8460Se	1～1216	1～1424
CL612e	1～1984	1～2136
M-5900RVe M-8459Se	1～896	1～1424
M-10eDT/TT	1～3200	1～3600
M-8485Se	1～1024	1～1424
M-8490Se	1～1344	1～2136
M-84Pro-6	1～2496	1～4272

7.9 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Kanji Code Specification

ESC+KC

HEX Code	ESC	KC	Parameter
	<1B>16	<4B>16<43>16	a
Default Value	a=0		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made
	Valid Range between Items	The set parameter becomes default value at next item <A>

[Function]

To specify Kanji Code

Kanji code can be switched over temporarily

[Format]

<KC>a

● Parameter

a 「Kanji Code Specification」 = 0 : JIS Code
1 : Shift JIS Code

[Coding Example 1] If Shift JIS is specified

```
<A>
<KC>1
<V>100<H>200<P>2<L>0202
<K1>H81698A94816A83548367815B
<Q>2
<Z>
```

[Coding Example 2] If JIS is specified

```
<A>
<KC>0
<V>100<H>200<P>2<L>0202
<K1>H214A3374214B25352548213C
<Q>2
<Z>
```

[Supplementary Explanation]

1.It is not necessary to specify normal label print for this command.
2.Multiple specifications within 1 item is applicable too.
3.This command is applicable only when Option Kanji ROM is installed.

7.10 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Form Overlay Registration Specification — ESC+&

HEX Code	ESC	&	Parameter
	<1B>16	<26>16	NIL
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set command is not maintained
	Valid Range within Items	The set command is valid until the next specification is made
	Valid Range between Items	The set command is valid until the next specification is made

[Function]

To specify Form Overlay Registration

[Format]

<&>

[Coding Example]

<A>
<V>100<H>50<FW>1010V800H750
<V>100<H>50<FW>0505V760H710
<V>150<H>100<XM>MODEL
<u><&></u>
<Z>

[Supplementary Explanation]

1. Store the fixed print content to printer by using Form Overlay Registration <&>, and through Form Overlay Recall Specification</>, printing can be executed from the composition with drawing from normal data.
2. Overlay Form Registration Specification <&> is specified at the end of data string that is to be stored. The effective area of the drawing registration is identical to the printing area of the printing.
3. Form Overlay Registration Specification <&> is applicable for only 1 format registration.
4. Register the new stored data after conducted Form Overlay Clear Specification <*&> of the changed content.
5. Registration content is recalled by Form Overlay Call Out Specification </>.
6. When label size specification <A1> is made, form overlay registration will be printed out at the specified area.

[Valid Command]

Print Position	<V>	<H>								
Modification	<WD>	<FW>	<(>	<RF>						
Font	<XU>	<XS>	<XM>	<XB>	<XL>					
									<OA>	<OB>
	<RD>	<$=>	<K1>*1	<K2>*1		<K8>*1	<K9>*1	<k1>*1	<k2>*1	
	<k8>*1	<k9>*1								
Barcode	<B>	<BC>	<BG>	<BI>	<BP>	<D>	<D><d>	<BD>	<BT>	<BW>
2-D Code	<BK>	<BQ>	<BV>	<BX>	<VC>					
Graphic	<G>	<GM>	<GP>							

*1 Requires Option Kanji ROM.

7.11 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Form Overlay Recall Specification

ESC+/

HEX Code	ESC	/	Parameter
	<1B>16	<2F>16	NIL
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set command is not maintained
	Valid Range within Items	The set command is valid until the next specification is made
	Valid Range between Items	The set command is valid until the next specification is made

[Function]
To specify Form Overlay Recall

[Format]
</>

[Coding Example]
<A>
</>
<V>200<H>100<P>0<$>B,100,100,6
<$=>SATOPRINTER
<V>720<H>150<B>102100*95000012345*
<Q>2
<Z>

[Supplementary Explanation]
1.Form Overlay Recall Specification </> recalls the registered content by the Form Overlay Registration Specification <&> and then print it out.
2.If Form Overlay Recall Specificatin </> is detected at normal print data, it proceed to printing with the composition of drawing data stored in the form overlay.

7.12 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Part Editing Function Specification — ESC+0

HEX Code	ESC	0	Parameter
	<1B>16	<30>16	NIL
Default Value	NIL		

Valid Range & Terms of Command	When Power is Switched Off	The set command is not maintained
	Valid Range within Items	The set command becomes invalid
	Valid Range between Items	The set command becomes invalid

[Function]
To specify part editing from the previous print data

[Format]
<0>

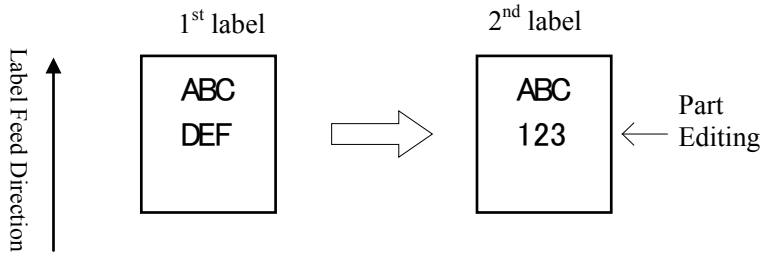
[Coding Example] Edit part of print Data{DEF} into{123}

```
<A>
<V>100<H>200<P>2<L>0202<XM>ABC
<V>200<H>200<P>2<L>0202<XM>DEF
<Q>1
<Z>

<A>
<0>
<V>200<H>200<P>2<L>0202<XM>123
<Q>1
<Z>
```

1st label

2nd label



[Supplementary Explanation]
1.Used when only one part of the previous print data is changed.
2.Recall the previous print data by Part Edit Specification <0>, start printing after part editing. From previous data, specify changes on the same print position, the condition is to send the changed data.
3.The specified previous data at the same position is cleared.
4.If Rotate Specification <%> is applied on edit portion, it is necessary to be applied during part editing too.
5.This command is used with the fixed pitch, same font or same digit numbers.

7.13 Modificaiton

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Copy within Labels (Part Copy) Specification

ESC+WD

HEX Code	ESC	WD	Parameter
	<1B>16	<57>16<44>16	VaaaaHbbbbYccccXdddd
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To copy the specified range from an optional location to another optional location

[Format]

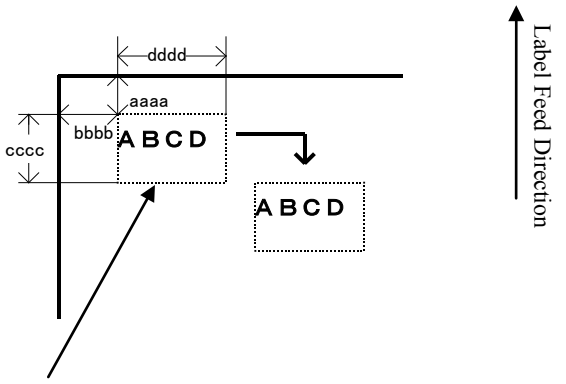
<WD>VaaaaHbbbbYccccXdddd

● Parameter

a	{Vertical Start Point of Copy Source}	=	valid range	:	refer to next page table
b	{Horizontal Start Point of Copy Source}	=	valid range	:	refer to next page table
c	{Vertical Dot Size of Copy Source}	=	valid range	:	refer to next page table
d	{Horizontal Dot Size of Copy Source}	=	valid range	:	refer to next page table

[Coding Example] Vertical Start Point of Copy Source:50, Horizontal Start Point of Copy Source:50,
Vertical Dot Size of Copy Source:200, Horizontal Dot Size of Copy Source:400

```
<A>
<V>50<H>50<P>2<L>0202<XU>ABCD
<V>300<H>100<WD>V50H50Y200X400
<Q>2
<Z>
```



Dot line portion shows the copy area.
Actual print portion is 「ABCD」.

[Supplementary Explanation]

1.Specify location for copy destination, specify Print Vertical Position Specification <V> and Print Horizontal Position Specification <H> before the Copy Specification <WD> inside of the label.

2. Do not specify the position of copy destination within the copy source.

3. If print start position of copy area exceed printable area, it will become command error and stop printing.

[Valid Range]

Model	Valid Range (dot)	
	Horizontal Start Point of Copy Source Horizontal Dot Size of Copy Source	Vertical Start Point of Copy Source Vertical Dot Size of Copy Source
CL408e M-8400RVe M-84Pro-2	1～832	1～1424
CL412e M-84Pro-3	1～1248	1～2136
CL608e M-8460Se	1～1216	1～1424
CL612e	1～1984	1～2136
M-5900RVe M-8459Se	1～896	1～1424
M-10eDT/TT	1～3200	1～3600
M-8485Se	1～1024	1～1424
M-8490Se	1～1344	1～2136
M-84Pro-6	1～2496	1～4272

7.14 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Journal Print Specification	ESC+J

HEX Code	ESC	J	Parameter
	<1B>16	<4A>16	a~a+CR<0D>16
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify journal printing

[Format]

<J>a~a+CR

● Parameter

a	{Journal Print Column}	=	Print Data
CR	{Control Code(0DH)}		

[Coding Example]

<A>
<J>
ABCD+CR
EFGH+CR
<Z>

[Supplementary Explanation]

1.Print journal from vertical position 2 dot, horizontal position 2 dot.
2.Character pitch is 2 dot, column pitch is 16 dot.
3.Font type is printed with XS font 2X2 times
4.It becomes invalid to combine with other command with this journal print command. However, Re-print Specification <C>, Black/White Inverse Print Specification <(> is excluded here.

7.15 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Font / Logo Search Print Specification

ESC+RF

HEX Code	ESC	RF	Parameter
	<1B>16	<52>16<46>16	aabbbb, n~n
Default Value	aa=01, bbbb=1		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
Searches and prints the download font or logo

[Format]
<RF>aabbbb,n~n
● Parameter

a	{Font ID No}	=	valid range	:	01~99
b	{Print Digit}	=	valid range	:	1~9999
n	{Print Data}				

[Coding Example 1] When a single byte “AB” is printed by using the Font Search Print Function {Font ID No:01, Print Digit:4}(Unicode is A:<0041>16, B:<0042>16)

```
<A>
<PS>
<V>100<H>100<L>0101
<RF>010004,<0041>16<0042>16
<Z>
```

[Coding Example 2] Logo Search Print{Font ID No:02, Print Digit:2}

```
<A>
<V>100<H>100<L>0101<RF>020002,<826B>16
<Z>
```

[Supplementary Explanation]
1.Specify the value of Unicode for print data.
2.Specify {Print Data:<826B>16}when logo is searched and printed{Print Digit:0002}.
(<826B>16 is the value of L shift JIS code)

7.16 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Mirror Rotate Specification	ESC+RM

HEX Code	ESC	RM	Parameter
	<1B>16	<52>16<4D>16	aaaa,bbbb
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
Mirror rotate the print data

[Format]
<H>hhhh<V>vvvv<RM>aaaa,bbbb

● Parameter

h	{Mirror Rotate Specification Start Horizontal Position}	=	valid range	:	refer to next page table
v	{Mirror Rotate Specification Start Horizontal Position}	=	valid range	:	refer to next page table
a	{Mirror Rotate Specification Horizontal Range}	=	valid range	:	8~9999
b	{Mirror Rotate Specification Vertical Range}	=	valid range	:	8~9999

[Coding Example 1] When Mirror Rotate Range is specified

```
<A>
<H>100<V>100<XM>12345
<H>100<V>100<RM>0200,0080
<Q>1
<Z>
```

[Coding Example 2] When Mirror Rotate Specification is not specified

```
<A>
<H>100<V>100<XM>12345
<RM>
<Q>1
<Z>
```

[Supplementary Explanation]

1. When parameter of aaaa, bbbb is not specified, all specified print data before Mirror Rotate Specification <RM> is mirror rotated.
2. Data not inside of the print area will not be mirror rotated.
3. For item not inclusive of print data, if this command is specified, it will become command error.
4. This command cannot be applied together with command (sequential number specification <F>, within label copy <WD>, calendar print specification <WA> etc) that inclusives of re-editing of print data. And also the graphic registration specification <GI>, format registration specification <YS>, data registration commands.
5. Multiple specification cannot be conducted with less than 1 item under this command.

[Valid Range]

Model	Valid Range (dot)	
	Mirror Rotate Specification Start Horizontal Position	Mirror Rotate Specification Start Vertical Position
CL408e M-8400RVe M-84Pro-2	1～832	1～1424
CL412e M-84Pro-3	1～1248	1～2136
CL608e M-8460Se	1～1216	1～1424
CL612e	1～1984	1～2136
M-5900RVe M-8459Se	1～896	1～1424
M-10eDT/TT	1～3200	1～3600
M-8485Se	1～1024	1～1424
M-8490Se	1～1344	1～2136
M-84Pro-6	1～2496	1～4272

7.17 Modification

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Variable Data Specification	ESC＋_D

HEX Code	ESC	_D	Parameter
	<1B>16	<5F>16<44>16	,aa,n～n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

【Function】
To specify variable data with small label

【Format】
＜_D＞,aa,n～n

● Parameter

a 「Field No」 ＝ valid range : 01～99

n 「Variable Data」 ＝ data

※ Specify the digit number of variable data within the range of digit that is specified under Format Specificatin <_N>. Printing will not be carried out if it exceeds the specified digit.

【Coding Example】

```
＜A＞
＜A1＞06363060＜PD＞,600,1020,0,0
＜_F＞
＜_N＞,01,04＜V＞100＜H＞200＜L＞0202＜XM＞ABCD
＜_N＞,02,07＜V＞200＜H＞200＜L＞0202＜B＞103200*11111*
＜_N＞,03,02＜V＞100＜H＞400＜L＞0202＜XM＞99
＜_D＞,01,AAAA＜_D＞,02,*22222*＜_D＞,03,22＜_Q＞,1
＜_D＞,01,BBBB＜_D＞,02,*33333*＜_D＞,03,33＜_Q＞,2
＜_D＞,02,*44444*＜_D＞,03,44＜_Q＞,4  ----------①
＜Z＞
```

Print Result Example）



【Supplementary Explanation】

1. If Variable Data Specification <_D> is omitted, the content (default) specified under Format Specification <_N> will be printed. However, if variable data is specified from Variable Data Specification <_D>, it will continue to that content and printing.（refer to ①）

7.18 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Label Print Number Specification

ESC＋_Q

HEX Code	ESC	_Q	Parameter
	<1B>16	<5F>16<51>16	,aaaa（,b）
Default Value	aaaa＝0001、b＝0		

Valid Range & Terms of Command	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

【Function】
To specify print number of small label

【Format】
＜_Q＞,aaaa（,b）

● Parameter

a	「Print Number」	＝	valid range	:	0001～9999
b	「Plain White Label Number」(omittable)＝		0	:	Auto New Line
			1～9	:	Number of Plain White Label

【Coding Example】

```
＜A＞
＜A1＞06363060
＜PD＞,600,1020,0,0
＜_F＞
＜V＞100＜H＞200＜P＞2＜L＞0202＜XM＞ABCD
＜V＞200＜H＞200＜P＞2＜L＞0202
＜B＞103200*11111*＜_Q＞,4,2
＜_F＞
＜V＞100＜H＞200＜P＞2＜L＞0202＜XM＞BBBB
＜V＞200＜H＞200＜P＞2＜L＞0202
＜B＞103200*22222*＜_Q＞,2,1
＜Z＞
```

Print Result Example）



【Supplementary Explanation】

1. The print number of small label can be specified under Small Label Print Number Specification <_Q>.

7.19 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Label Size Specification

ESC＋RI

HEX Code	ESC	RI	Parameter
	<1B>16	<52>16<49>16	aaaa,bbbb,cc,dd,eeee,ffff,gg,hh
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes valid until the next specification is made
	Valid Range between Items	The set parameter becomes valid until the next specification is made

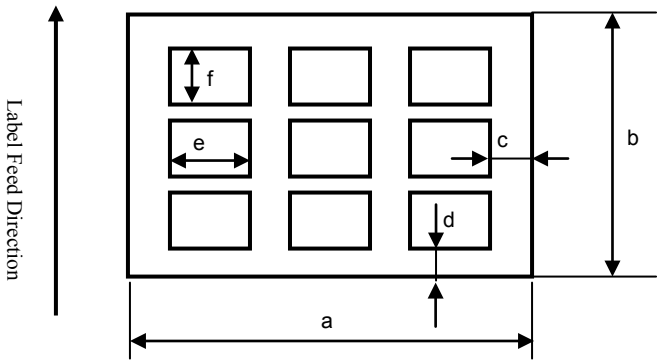
【Function】
To set information on label size

【Format】
＜RI＞aaaa,bbbb,cc,dd,eeee,ffff,gg,hh

● Parameter

a	Horizontal Sheet Size (Label Area Width)	＝	valid range	:	1500～3200 (dot)
b	Vertical Sheet Size (Label Area Height)	＝	valid range	:	480～3600 (dot)
c	Horizontal Label Size	＝	valid range	:	0～60 (dot)
d	Vertical Label Size	＝	valid range	:	00～60 (dot)
e	Horizontal Label Size for Small Label (Label Size Width)	＝	valid range	:	480～3200 (dot)
f	Vertical Label Size for Small Label (Label Size Height)	＝	valid range	:	480～3600 (dot)
g	Horizontal Label Number	＝	valid range	:	01～06
h	Vertical Label Number	＝	valid range	:	01～07

【Coding Example】
＜A＞
＜RI＞2196,1236,24,36,0700,0400,03,03
＜A1＞12362196
＜RW＞02
＜Z＞



【Supplementary Explanation】
1. Label Size Specification <RI> data becomes error when it is different from Label Size Specification <A1>.
2. Number of label in horizontal column will be calculated automatically and printed out by Lable Size Specification <RI>.

【Point】
1. Label Size Specification <RI> is a command to set information relating to label size at printer driver. Therefore, it cannot be combined with other standard command.

7.20 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Sheet Unit Copy Number Specification

ESC＋RW

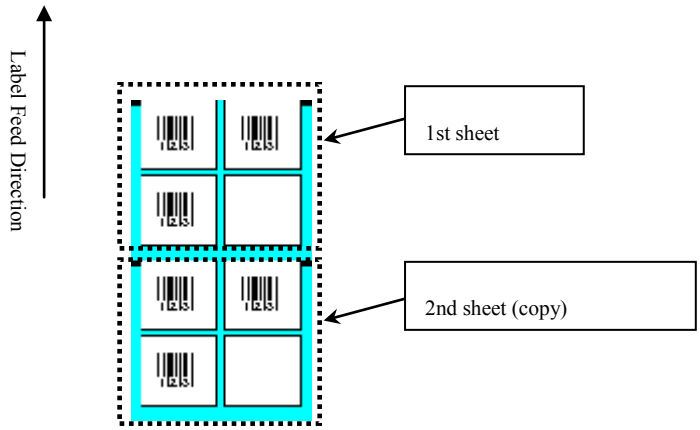
HEX Code	ESC	RW	Parameter
	<1B>16	<52>16<57>16	aa
Default Value	aa＝01		

Valid Range & Terms of Command	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

【Function】
To specify sheet copy number of small label

【Format】
＜RW＞aa
● Parameter
a 「Sheet Copy Number」 ＝ valid range : 01～99

【Coding Example】
＜A＞
＜RI＞3200,1200,00,00,1600,0600,02,02
＜A1＞12003200
＜RW＞01
＜Z＞



【Supplementary Explanation】
1. Sheet means when it is divided into several small labels by Label Size Specification <R1>, it is equivalent to the range that has been specified by Label Size Specification <A1>.

【Point】
1. Sheet Unit Copy Number Specification <RW> is a command to specify the sheet copy number of small label at printer driver. Therefore
it cannot be combined with other standard command.

7.21 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Sheet Unit Cut Number Specification

ESC＋RC

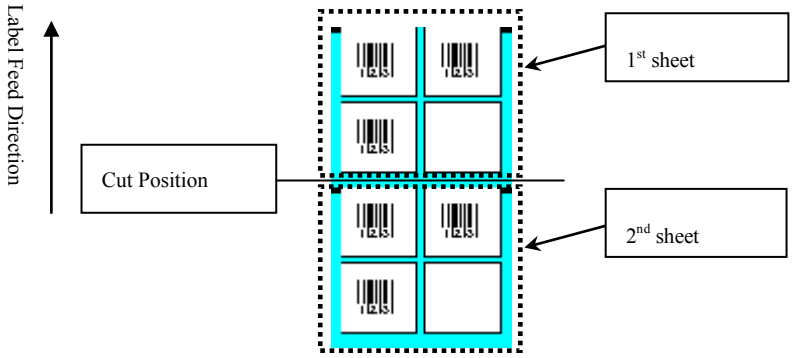
HEX Code	ESC	RC	Parameter
	<1B>16	<52>16<43>16	aa
Default Value	aa＝01		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

【Function】
To specify sheet cut number of the small label

【Format】
＜RC＞aa
● Parameter
a 「Sheet Cut Number」 ＝ valid range : 01～99

【Coding Example】
＜A＞
＜RI＞3200,1200,00,00,1600,0600,02,02
＜A1＞12003200
＜RC＞01
＜Z＞



【Supplementary Explanation】
1. Sheet means a certain range specified under Label Size Specification <A1> when it is divided into small labels under Label Size Specification <R1>.

【Point】
1. Sheet Unit Cut Specification <RC> is a command to specify the sheet cut number of small label at printer driver. Therefore, it cannot be combined with other standard command.

7.22 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Print Order Specification	ESC＋RT

HEX Code	ESC	RT	Parameter
	<1B>16	<52>16<54>16	a
Default Value	a＝0		

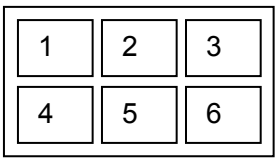
Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes valid until the next specification is made
	Valid Range between Items	The set parameter becomes valid.

【Function】
To specify print order of small label

【Format】
＜RT＞a
● Parameter
a 「Print Direction Specification」 ＝ 0 : Horizontal Direction
1 : Vertical Direction

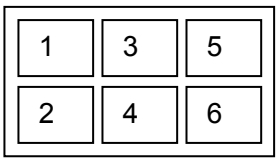
【Coding Example】
＜A＞
＜RT＞0
＜RI＞3200,1200,00,00,1600,0600,02,02
＜A1＞12003200
＜Z＞

<Horizontal Direction>





<Vertical Direction>



【Point】
1. Print Order Specification <RT> is a command to specify label print order of small label by printer driver. Therefore, it cannot be combined
with other standard command.

7.23 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Telegraphic Message End Specification	ESC＋RE

HEX Code	ESC	RE	Parameter
	<1B>16	<52>16<45>16	a
Default Value	a＝0		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes default value at next item <A>

【Function】
To specify the telegraphic message end relates to small label

【Format】
＜RE＞a
● Parameter
a 「Operates when Ending」 ＝ 0：Discharge Motion
1：Discharge Motion ＋ Cut Motion
※ The motion becomes 0 (feed motion) when cutter is not available

【Coding Example】
＜A＞
＜RE＞0
＜Z＞

【Supplementary Explanation】
1. After receiving Telegraphic End Specification <RE>, the editing of horizontal row will be ended and conduct feed motion. As printing may end at the middle of horizontal row label due to the number of printing, so it is very common that the label may turn out into plain white without any printing on it.

【Point】
1. Telegraphic End Specification<RE> is a command to specify telegraphic ending of small label at printer driver, therefore, it cannot be
combined with other standard command.

7.24 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Sheet Sending Specification	ESC＋RS

HEX Code	ESC	RS	Parameter
	<1B>16	<52>16<53>16	NIL
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set command is not maintained
	Valid Range within Items	The set command becomes invalid
	Valid Range between Items	The set command becomes invalid

【Function】
To specify paper delivery (feed operation) of marked unit (I-mark, Gap) for small label.

【Format】
＜RS＞

【Coding Example】
＜A＞
＜RS＞
＜Z＞

【Point】
1. Used at single item only.
2. Sheet Sending Specification <RS> is a command to specify small label sheet sending of I-mark unit at printer driver. Therefore, it cannot be combined with other standard command.

7.25 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Work Shift Information Print Specification

ESC＋WS

HEX Code	ESC	WS	Parameter
	<1B>16	<57>16<53>16	a
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

【Function】

To specify printing of work shift information (shift code, printer start use time, shift name).

【Format】

＜WS＞a

● Parameter

a 「Print Content」 ＝ 1：Shift Code
2：Printer Start Use Time
3：Shift Name

【Coding Example】

```
＜A＞
＜S＞
＜V＞050＜H＞050＜L＞0101＜M＞SHIFT CODE:
＜V＞050＜H＞300＜L＞0202＜WS＞1
＜V＞100＜H＞050＜L＞0101＜M＞START TIME:
＜V＞100＜H＞300＜L＞0202＜WS＞2
＜WB＞0
＜V＞150＜H＞050＜L＞0101＜M＞SHIFT NAME:
＜V＞150＜H＞300＜L＞0101＜WS＞3
＜Q＞1
<Z>
```

【Supplementary Explanation】

1. If work shift information is set invalid at printer LCD hidden setting mode, it will become command error.
2. Before Work Shift Print Specification <WS>, character type to print out the work shift information can be specified by font command without any print data. If font specification command is not conducted, print it by U character.
3. XU, XS, XM, XB, XL are font type valid for specification.
4. Font specification command to specify character type of Work Shift Print Specification <WS> becomes default value at next item <A>.

The font specification command for print data will not influence on print content of Work Shift Print Specification <WS>.

7.26 Modification

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

RFID Message Print Registration Specification

ESC+RZ

HEX Code	ESC	RZ	Parameter
	<1B>16	<52>16<5A>16	a
Default Value	a=0		

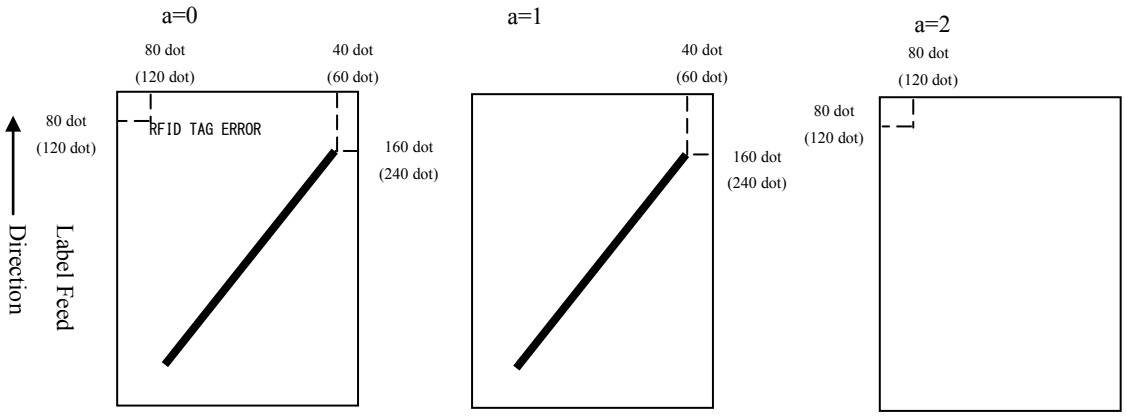
Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

【Function】
To specify the content registration to be printed on tag when RFID tag error occur.

【Format】
＜RZ＞a
● Parameter
a 「Print Pattern」 ＝ 0：Diagonal Line + Character
1：Diagonal Line only
2：Character only

【Coding Example】 To print message (XM Character) of『No RFID Label』and diagonal line.
＜A＞
＜A1＞08000600
＜V＞50＜H＞50＜XM＞No RFID Label
＜RZ＞0
<Z>

【Print Example】



Value of（）is 12 dot/mm

【Supplementary Explanation】
1. Become valid only for CL408e/412e with installation of RFID Option.
2. Label size specification <A1> must be set. When label size specification is not available, vertical 800 dot, horizontal 600 dot is specified.
If specified label size is bigger than actual label, print message will be printed onto the next tag.
3. RFID Message Print Registration Specification <RZ> cannot be specified within the item similar to normal print data. If Print Number Specification <Q> is specified within the item that is specified under this command, print number specification become invalid.
4. Specify RFID Message Print Registration Specification <RZ> right before Data Send End Specification <Z>.
5. If this command is not specified, the word of “RFID TAG ERROR” and diagonal line will be printed when RFID Tag Error Occur.
6. Diagonal line will be printed automatically by Label Size Specification <A1> after adjusted to the specified label size. But the shape and
print position of the line cannot be specified.

【Valid Command】

Print Positin	＜H＞	＜V＞								
Modification	<P>	<L>	<FW>	</>						
Font	<XU>	<XS>	<XM>	<XB>	<XL>	<OA>	<OB>	<RD>	<$=>	
System	<A1>									

8. Font Command

8.1 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

XU Font Specification (Basic Size 5×9 dot)	ESC+XU

HEX Code	ESC	XU	Parameter
	<1B>16	<58>16<55>16	n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify font formed by the basic character size with the size of width 5 X height 9 dot.

[Format]

<XU>n~n

- Parameter

n {Print Data} = Data

[Coding Example]

<A>
<V>100<H>200<P>2<L>0304**<XU>ABCDE**
<Q>2
<Z>

[Supplementary Explanation]

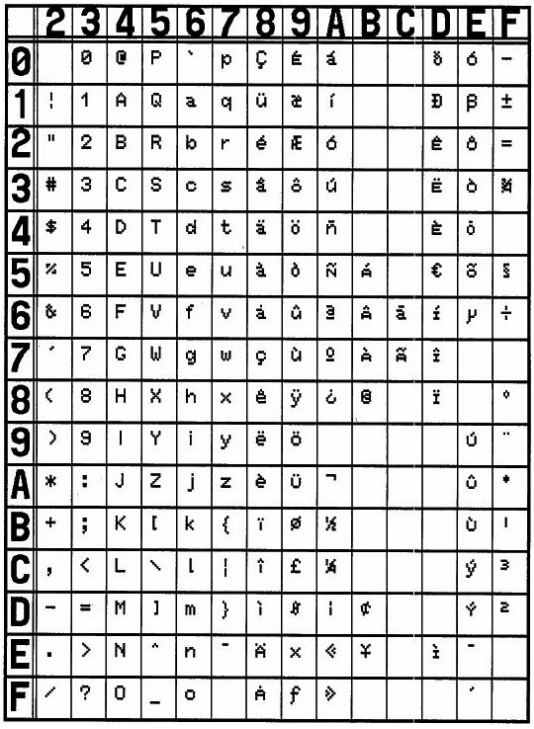
1.XU font can select both Fixed Pitch and Proportional Pitch.
2.Fixed Pitch and Proportional Pitch can be set at command specification or printer LCD advanced mode.
(Advanced Mode is valid)

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<PS>	<PR>	<F>	<&>	</>	<0>	<WD>
Barcode	<D><d>									
Calendar	<WA>									

XU Font Character Set

Basic size 5 X 9 dot forms the following words



The above print sample is the printing with head density 12 dot/mm, 3 times size of horizontal/vertical

8.2 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

XS Font Specification （Basic Size 17 × 17 dot）	ESC+XS

HEX Code	ESC	XS	Parameter
	<1B>16	<58>16<53>16	n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify font formed by basic size of width 17 X height 17 dot

[Format]

<XS>n~n

● Parameter

n {Print Data} = Data

[Coding Example]

<A>
<V>100<H>200<P>2<L>0304**<XS>ABCDE**
<Q>2
<Z>

[Supplementary Explanation]

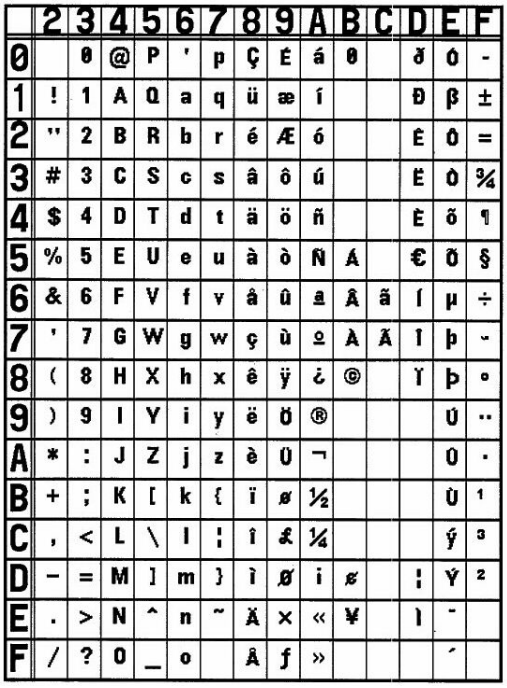
1.XS font can select both Fixed Pitch and Proportional Pitch.
2.The setting of Fixed Pitch and Proportional Pitch can be set at command specification or printer LCD advanced mode. (Advanced Mode is valid)

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<PS>	<PR>	<F>	<&>	</>	<0>	<WD>
Barcode	<D><d>									
Calendar	<WA>									

XS Font Character Set

Basic size 17 X dot forms the following words



	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0		0	@	P	'	p	Ç	É	á	0		ð	Ó	-
1	!	1	A	Q	a	q	ü	æ	í			Ð	ß	±
2	"	2	B	R	b	r	é	Æ	ó			Ê	Ô	=
3	#	3	C	S	c	s	â	ô	ú			Ë	Ò	¾
4	$	4	D	T	d	t	ä	ö	ñ			È	õ	¶
5	%	5	E	U	e	u	à	ò	Ñ	Á		€	Õ	§
6	&	6	F	V	f	v	å	û	ª	Â	ã	Í	µ	÷
7	'	7	G	W	g	w	ç	ù	º	À	Ã	Î	þ	¸
8	(	8	H	X	h	x	ê	ÿ	¿	©		Ï	Þ	°
9	)	9	I	Y	i	y	ë	Ö	®				Ú	¨
A	*	:	J	Z	j	z	è	Ü	¬				Û	·
B	+	;	K	[	k	{	ï	ø	½				Ù	¹
C	,	<	L	\	l	¦	î	£	¼				ý	³
D	−	=	M	]	m	}	ì	Ø	¡	¤		¦	Ý	²
E	.	>	N	^	n	~	Ä	×	«	¥		Ì	¯	
F	/	?	O	_	o		Å	ƒ	»				´	

The above print sample is with head density 12 dot/mm, 2 times size of vertical/horizontal

8.3 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

XM Font Specification （Basic Size 24 × 24 dot）	ESC+XM

HEX Code	ESC	XM	Parameter
	<1B>16	<58>16<4D>16	n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify font formed by basic word size of width 24 X height 24 dot

[Format]

<XM>n~n

- Parameter

n {Print Data} = Data

[Coding Example]

<A>
<V>100<H>200<P>2<L>0304**<XM>ABCDE**
<Q>2
<Z>

[Supplementary Explanation]

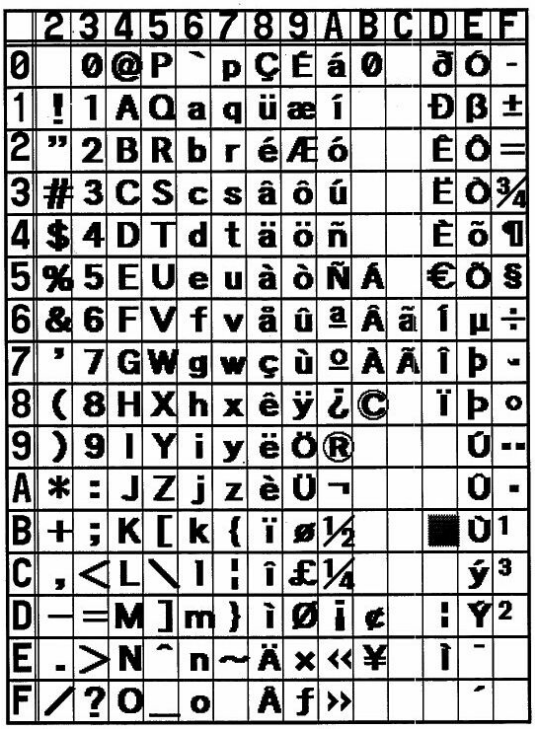
1.XM font can select both Fixed Pitch and Proportional Pitch.
2.The setting of Fixed Pitch and Proportional Pitch can be set at command specification or printer LCD advanced mode. (Advanced Mode is valid)

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<PS>	<PR>	<F>	<&>	</>	<0>	<WD>
Barcode	<D><d>									
Calendar	<WA>									

XM Font Character Set

Basic side 24 X 24 dot forms the following words



The above print sample with head density 12 dot/mm, 2 times size of vertical/horizontal

8.4 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

XB Font Specification （Basic Size 48 × 48 dot）

ESC+XB

HEX Code	ESC	XB	Parameter
	<1B>16	<58>16<42>16	an~n
Default Value	a=0		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify font formed by basic character size of width 48 X height 48 dot.

[Format]

<XB>an~n

● Parameter

a {Smoothing Specification} = 0:Smoothing Invalid
1:Smoothing Valid (valid when enlargement specification <L > is from 3 ~12 times)

n {Print Data} = Data

[Coding Example]

<A>
<V>100<H>200<P>2<L>0304**<XB>0ABCDE**
<Q>2
<Z>

[Supplementary Explanation]

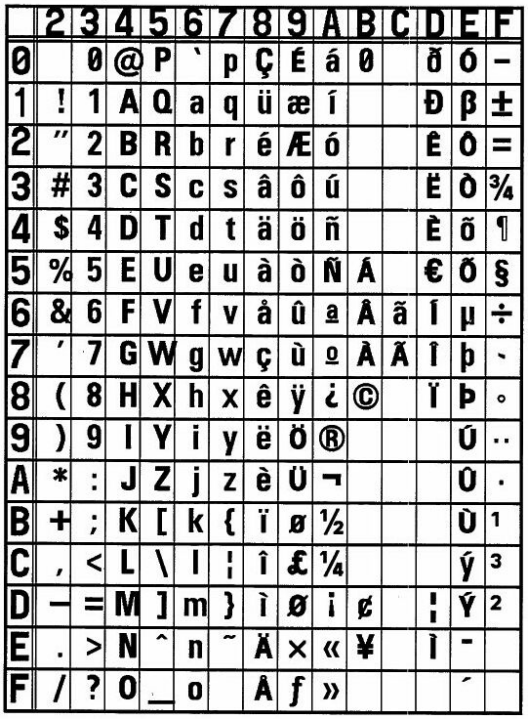
1.XB font can select both Fixed Pitch and Porportional Pitch.
2.The setting of Fixed Pitch and Proportional Pitch can be set at command specification or printer LCD advanced mode. (Advanced Mode is valid)
3.Even if smoothing specification is valid, it will become invalid if enlargement specification <L> is 1, 2 times.

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<PS>	<PR>	<F>	<&>	</>	<0>	<WD>
Barcode	<D><d>									
Calendar	<WA>									

XB Font Character Set

Words formed by basic size 48 X 48 dot



	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0		0	@	P	`	p	Ç	É	á	0		ð	ó	-
1	!	1	A	Q	a	q	ü	æ	í			Ð	ß	±
2	"	2	B	R	b	r	é	Æ	ó			Ê	Ô	=
3	#	3	C	S	c	s	â	ô	ú			Ë	Ò	¾
4	$	4	D	T	d	t	ä	ö	ñ			È	õ	¶
5	%	5	E	U	e	u	à	ò	Ñ	Á		€	Õ	§
6	&	6	F	V	f	v	å	û	ª	Â	ã	Í	µ	÷
7	'	7	G	W	g	w	ç	ù	º	À	Ã	Î	þ	¸
8	(	8	H	X	h	x	ê	ÿ	¿	©		Ï	Þ	°
9	)	9	I	Y	i	y	ë	Ö	®				Ú	¨
A	*	:	J	Z	j	z	è	Ü	¬				Û	·
B	+	;	K	[	k	{	ï	ø	½				Ù	1
C	,	<	L	\	l	¦	î	£	¼				ý	3
D	-	=	M	]	m	}	ì	Ø	¡	¢		¦	Ý	2
E	.	>	N	^	n	~	Ä	×	«	¥		Ì	¯	
F	/	?	O	_	o		Å	ƒ	»				´	

The above print sample with the head density 12 dot/mm, 1 time size of vertical/horizontal

8.5 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

XL Font Specification （Basic Size 48 × 48 dot）

ESC+XL

HEX Code	ESC	XL	Parameter
	<1B>16	<58>16<4C>16	an~n
Default Code	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify font formed by basic word size of width 48 X height 48 dot.

[Format]

<XL>an~n

● Parameter

a {Smoothing Specification} = 0:Smoothing Invalid
1:Smoothing Valid (valid when enlargement specification <L> is from 3 ~12 times)

n {Print Data} = Data

[Coding Example]

<A>
<V>100<H>200<P>2<L>0304**<XL>0ABCDE**
<Q>2
<Z>

[Supplementary Explanation]

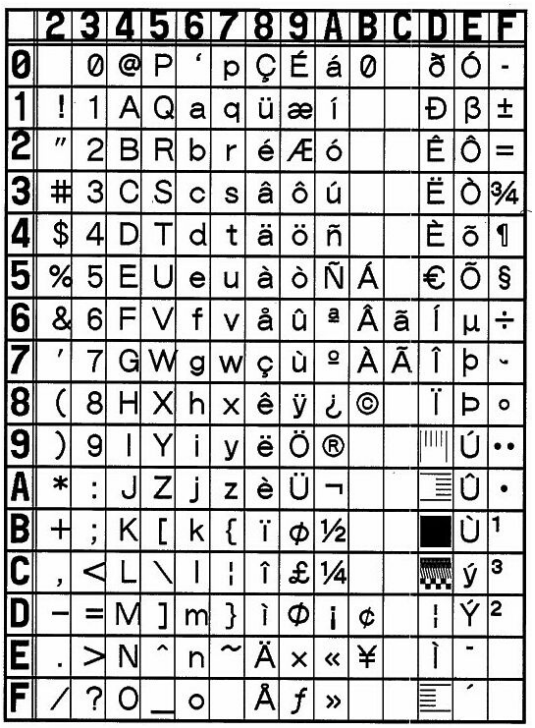
1.XL font can select both Fixed Pitch and Proportional Pitch.
2.The setting of Fixed Pitch and Proportional Pitch can be set by command specification or printer LCD advanced mode.
(Advanced Mode is valid)
3.Even if smoothing specification is valid, it will become invalid if enlargement specification <L> is at 1, 2 times.

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<PS>	<PR>	<F>	<&>	</>	<0>	<WD>
Barcode	<D><d>									
Calendar	<WA>									

XL Font Character Set

Words formed by basic size 48 X 48 dot



The above print sample with the head density 12 dot/mm, 1 time size of vertical/horizontal.

8.6 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

OCR-A Font Specification

ESC+OA

HEX Code	ESC	OA	Parameter
	<1B>16	<4F>16<41>16	n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify OCR-A font

[Format]

<OA>n~n

- Parameter

n {Print Data} = Data

[Coding Example]

<A>
<V>100<H>100<P>2<L>0202**<u><OA>ABC</u>**
<Q>2
<Z>

[Font Size Table]

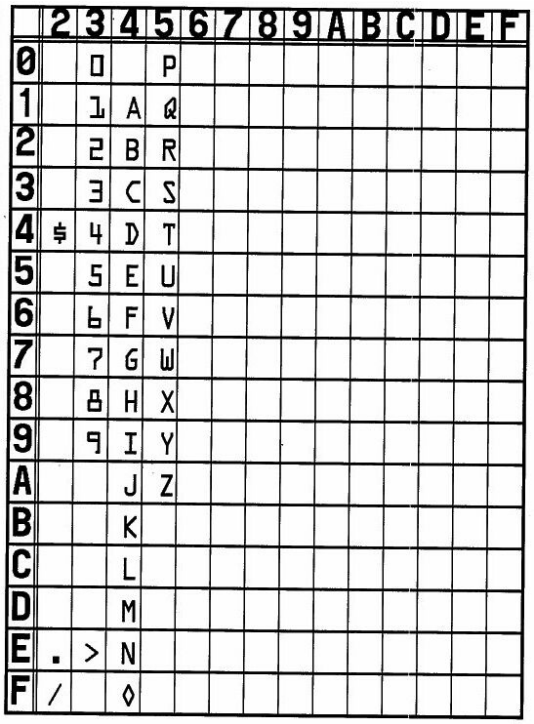
Model	Font Size (dot)
CL408e, M-8400Rve, CL608e, M-5900Rve, M-8485Se/60Se/59Se, M-84Pro-2	width 15 × height 22
CL412e, CL612e, M-10eDT/TT, M-8490Se, M-84Pro-3	width 22 × height 33
M-84Pro-6	width 44 × height 66

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<F>	<&>	</>	<0>	<WD>		
Barcode	<D><d>									
Calendar	<WA>									

OCR-A Font Character Set

OCR-A Font Specification



	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0		0		P										
1		1	A	Q										
2		2	B	R										
3		3	C	S										
4	$	4	D	T										
5		5	E	U										
6		6	F	V										
7		7	G	W										
8		8	H	X										
9		9	I	Y										
A			J	Z										
B			K											
C			L											
D			M											
E	.	>	N											
F	/		◊											

The above print sample with the head density 12 dot/mm, 1 time of vertical / horizontal of 22 X 33 dot

8.7 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

OCR-B Font Specification

ESC+OB

HEX Code	ESC	OB	Parameter
	<1B>16	<4F>16<42>16	n~n
Default Code	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify OCR-B font

[Format]
<OB>n~n
● Parameter
n {Print Data} = Data

[Coding Example]
<A>
<V>100<H>100<P>2<L>0202**<OB>ABC**
<Q>2
<Z>

[Font Size Table]

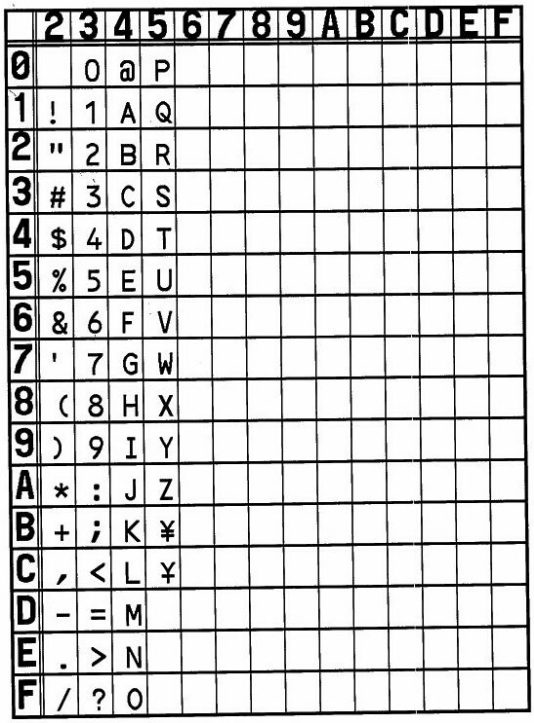
Model	Font Size (dot)
CL408e, M-8400Rve, CL608e, M-5900Rve, M-8485Se/60Se/59Se, M-84Pro-2	width 20 × height 24
CL412e, CL612e, M-10eDT/TT, M-8490Se, M-84Pro-3	width 30 × height 36
M-84Pro-6	width 60 × height 72

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<F>	<&>	</>	<0>	<WD>		
Barcode	<D><d>									
Calendar	<WA>									

OCR-B Font Character Set

OCR-B Font Specification



	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0		0	@	P										
1	!	1	A	Q										
2	"	2	B	R										
3	#	3	C	S										
4	$	4	D	T										
5	%	5	E	U										
6	&	6	F	V										
7	'	7	G	W										
8	(	8	H	X										
9	)	9	I	Y										
A	*	:	J	Z										
B	+	;	K	¥										
C	,	<	L	¥										
D	-	=	M											
E	.	>	N											
F	/	?	O											

The above sample is the printing with head density 12 dot/mm, 1 time size of vertical/horizontal of 30 X 36 dot

8.8 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Outline Font Shape Specification

ESC+$

HEX Code	ESC	$	Parameter
	<1B>16	<24>16	a,bbb,ccc,d
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes valid until the next specification is made
	Valid Range between Items	The set parameter becomes default value at next item <A>

[Function]

To specify font type, font size and font shape of outline font.

[Format]

<$>a,bbb,ccc,d

● Parameter

a {Font Type Specification} = A : Helvetica bold (Proportional)
B : Helvetica bold (Character Pitch Fixed)

b {Font Width Specification} = valid range : 24~999(dot)

c {Font Height Specification} = valid range : 24~999(dot)

d {Font Shape Specification} = 0 : Standard Font (Black)
1 : Font without White
2 : Gray Font (Pattern 1)
3 : Gray Font (Pattern 2)
4 : Gray Font (Pattern 3)
5 : Font with Shadow
6 : Font without white, with Shadow
7 : Mirror Reflection Font
8 : Standard Italic Font
9 : Italic Font without White, with Shadow

[Coding Example] Font Type Specification:A, Font Width Specification:100 dot, Font Height Specification:100 dot, Font Shape Specification:1

```
<A>
<V>100<H>100<P>2
<$>A,100,100,1<$=>SATO
<Q>2
<Z>
```

[Supplementary Explanation]

1.The shape of Italic font is inclining at 15° within the font width specification.
2.Outline Font Print Specification <$=> is specified after Outline Font Shape Specification <$>.
3.Regarding the shape font of 1~9, if the specified dot size is small, it is not easy to differentiate with the font.
4.If font width, height specification is small, it may be damaged by the font.

[Valid Command]

Modification	<$=>									

8.9 Font

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Outline Font Print Specification

ESC+$=

HEX	ESC	$=	Parameter
	<1B>16	<24>16<3D>16	n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify printing of outline font

[Format]
<$=>n~n
● Parameter
n {Print Data} = Data

[Coding Example] Print Data:SATO
<A>
<V>100<H>100<P>2
<$>A,100,100,1**<u><$=>SATO</u>**
<Q>2
<Z>

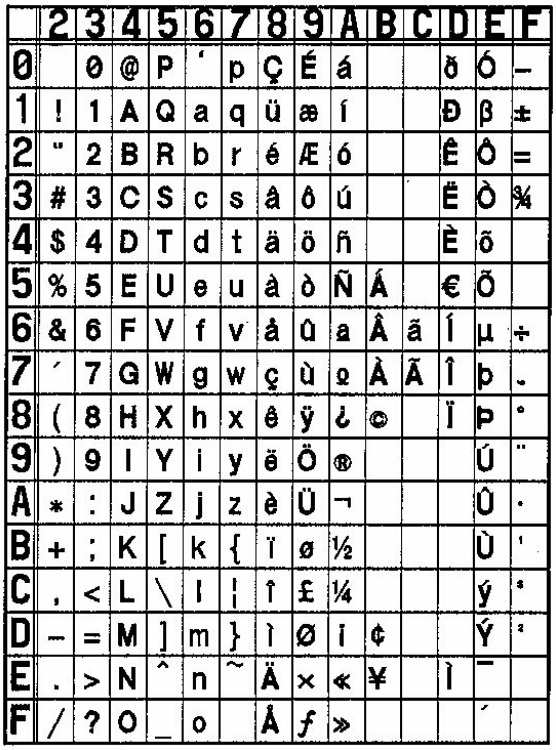
[Supplementary Explanation]
1.Specify the Outline Font Shape Specification <$> before the Outline Font Print Specification <$=>.
2.The specify range of font height includes ascender and descender areas. For proportional, be careful with the outline font as letter size width change accordingly with every font.
3.Font pitch can be specified by Character Pitch Specification <P>
4.The incline object is inclining at 15° within the font width specification. Ascender and descender areas are included within the height specification.
5.Regarding the shape font of 1~9, if the specified font size is small, it is not easy to differentiate with the font.
6.If the font width, height specification of the Outline Font Shape Specification <$> is small, it may be damaged by the font.

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<%>	<$>	<F>						
Calendar	<WA>									

Outline Font Character Set

Outline Font Specification



	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0		0	@	P	'	p	Ç	É	á			ð	Ó	–
1	!	1	A	Q	a	q	ü	æ	í			Ð	ß	±
2	"	2	B	R	b	r	é	Æ	ó			Ê	Ô	=
3	#	3	C	S	c	s	â	ô	ú			Ë	Ò	¾
4	$	4	D	T	d	t	ä	ö	ñ			È	õ	
5	%	5	E	U	e	u	à	ò	Ñ	Á		€	Õ	
6	&	6	F	V	f	v	å	û	a	Â	ã	Í	µ	÷
7	´	7	G	W	g	w	ç	ù	º	À	Ã	Î	þ	¸
8	(	8	H	X	h	x	ê	ÿ	¿	©		Ï	Þ	°
9	)	9	I	Y	i	y	ë	Ö	®				Ú	¨
A	*	:	J	Z	j	z	è	Ü	¬				Û	·
B	+	;	K	[	k	{	ï	ø	½				Ù	¹
C	,	<	L	\	l	¦	î	£	¼				ý	³
D	–	=	M	]	m	}	ì	Ø	¡	¢			Ý	²
E	.	>	N	^	n	~	Ä	×	«	¥		Ì	¯	
F	/	?	O	_	o		Å	ƒ	»				´	

The above sample is the printing with head density 12 dot/mm, standard font 50 X 50 dot.

8.10 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

CG Font Specification

ESC+RD

HEX Code	ESC	RD	Parameter
	<1B>16	<52>16<44>16	abb,ccc,ddd,n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify CG Font Type, Font Style, Font Size, Print Data.

[Format]

<RD>abb,ccc,ddd,n~n

● Parameter

a {Font Type} = A {CG Times}
B {CG Triumvirate}

b {Font Style} = 00 Fixed

c {Horizontal Size} = valid range : 004~999 (Dot specification)
valid range : P02~P99(Point Specification)

d {Vertical Size} = valid range : 004~999(Dot Specification)
valid range : P02~P99(Point Specification)

n {Print Data} = Data

[Coding Example]

<A>
<V>100<H>100<P>2
<RD>A00,P10,P10,SATO
<Q>2
<Z>

[Supplementary Explanation]

1.Font size is set at “Dot Specification”, “Point Specification”.
2.Dot size is different based on printer model. (refer to the following table)
3.1 point is 0.35mm.

[Dot Size]

Model	1 dot size（mm）
CL408e, M-8400Rve, CL608e, M-5900Rve, M-8485Se/60Se/59Se, M-84Pro-2	0.125
CL412e, CL612e, M-10e, M-8490Se, M-84Pro-3	0.083
M-84Pro-6	0.042

[Font Size Range]

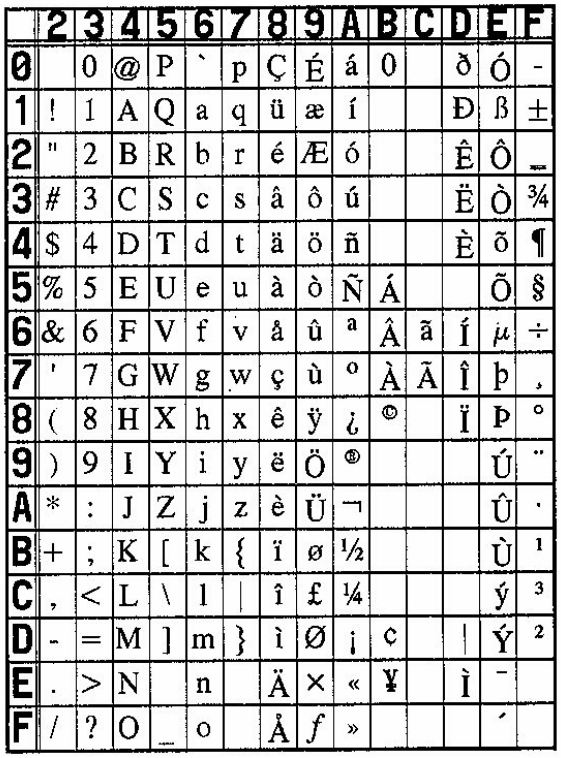
Model	Valid Range：Horizontal Size Range (dot)	Valid Range：Vertical Size Range (dot)
CL408e, M-8400Rve, M-84Pro-2	4～832	4～999
M-5900Rve, M-8459Se	4～896	4～999
CL412e, CL608e, CL612e, M-10eDT/TT, M-8485Se/90Se/60Se, M-84Pro-3/6	4～999	4～999

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<%>	<F>							

CG Times Font Character Set

CG Times Font Specification

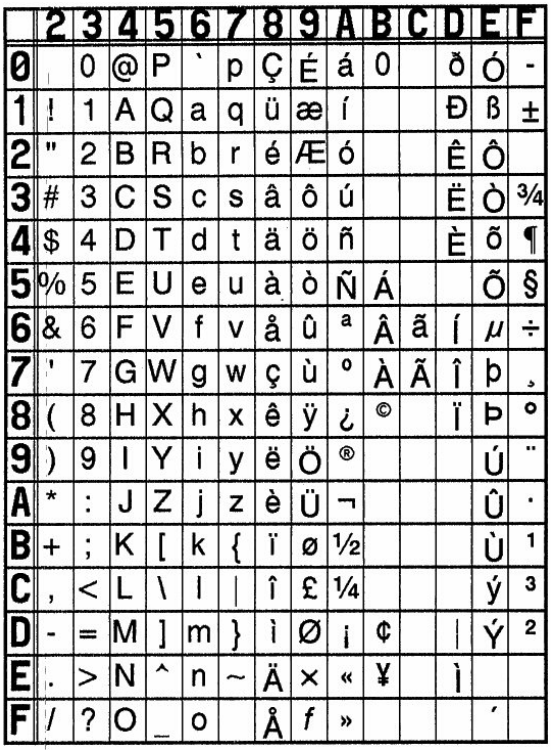


	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0		0	@	P	`	p	Ç	É	á	0		ð	Ó	-
1	!	1	A	Q	a	q	ü	æ	í			Ð	ß	±
2	"	2	B	R	b	r	é	Æ	ó			Ê	Ô	‗
3	#	3	C	S	c	s	â	ô	ú			Ë	Ò	¾
4	$	4	D	T	d	t	ä	ö	ñ			È	õ	¶
5	%	5	E	U	e	u	à	ò	Ñ	Á			Õ	§
6	&	6	F	V	f	v	å	û	ª	Â	ã	Í	µ	÷
7	'	7	G	W	g	w	ç	ù	º	À	Ã	Î	þ	¸
8	(	8	H	X	h	x	ê	ÿ	¿	©		Ï	Þ	°
9	)	9	I	Y	i	y	ë	Ö	®				Ú	¨
A	*	:	J	Z	j	z	è	Ü	¬				Û	·
B	+	;	K	[	k	{	ï	ø	½				Ù	¹
C	,	<	L	\	l	|	î	£	¼				ý	³
D	-	=	M	]	m	}	ì	Ø	¡	ç		¦	Ý	²
E	.	>	N		n		Ä	×	«	¥		Ì	¯	
F	/	?	O	_	o		Å	*f*	»				´	

The above sample is the printing with the head density 12 dot/mm, 48 X 48 dot.

CG Triumvirate Font Character Set

CG Triumvirate Font Specification



	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0		0	@	P	`	p	Ç	É	á	0		ð	Ó	-
1	!	1	A	Q	a	q	ü	æ	í			Ð	ß	±
2	"	2	B	R	b	r	é	Æ	ó			Ê	Ô	
3	#	3	C	S	c	s	â	ô	ú			Ë	Ò	¾
4	$	4	D	T	d	t	ä	ö	ñ			È	õ	¶
5	%	5	E	U	e	u	à	ò	Ñ	Á			Õ	§
6	&	6	F	V	f	v	å	û	ª	Â	ã	Í	µ	÷
7	'	7	G	W	g	w	ç	ù	º	À	Ã	Î	þ	¸
8	(	8	H	X	h	x	ê	ÿ	¿	©		Ï	Þ	°
9	)	9	I	Y	i	y	ë	Ö	®				Ú	¨
A	*	:	J	Z	j	z	è	Ü	¬				Û	·
B	+	;	K	[	k	{	ï	ø	½				Ù	¹
C	,	<	L	\	l	|	î	£	¼			ý	³
D	-	=	M	]	m	}	ì	Ø	¡	¢		|	Ý	²
E	.	>	N	^	n	~	Ä	×	«	¥		Ì		
F	/	?	O	_	o		Å	*f*	»				´	

The above sample is the printing with head density 12 dot/mm, 48 X 48 dot.

8.11 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

16×16 dot Horizontal Text Flow Kanji Specification (Valid Specification of JIS or Shift JIS)	ESC+K1

HEX Code	ESC	K1	Parameter
	<1B>16	<4B>16<31>16	an~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify Horizontal Text Flow Kanji with the size of width 16 X height 16 dot

[Format]

<K1>an~n

● Parameter

a {Kanji Specification Mode} = H : HEX Character Specification
B : Binary Code Specification
I : with smoothing function based on HEX
C : with smoothing function based on binary code
J : with highlighting function base on HEX
D : with highlighting function based on binary code
K : with smoothing and highlighting function based on HEX
E :with smoothing and highlighting function based on binary code

n {Data } = Refer to JIS Kanji Code Table or Shift JIS Kanji Code Table

[Coding Example 1] HEX Character Specification of Shift JIS Horizontal Direction Ratio:3 times, Vertical Direction Ratio:5 times

<A>
<V>100<H>200<P>2<L>0305
<K1>H81698A94816A83548367815B
<Q>2
<Z>

[Coding Example 2] Binary Specification of JIS, Horizontal Direction Ratio:2 times, Vertical Direction Ratio:3 times

<A>
<V>100<H>200<P>2<L>0203
<K1>B!J3t!K%5%H!<
<Q>2
<Z>

[Supplementary Explanation]

1.HEX Character = Kanji Code 4 byte ASCII / Kanji 1 Character
2.Binary Code = Kanji Code 2 byte / Kanji 1 character
3.Smoothing Function Valid Ratio = Horizontal, Vertical valid range : 3~12 times
4.Highlighting Function Valid Ratio = Horizontal, Vertical valid range : 1~5 times

[Point]

1.For the highlighting function, the horizontal width of characters increase if follow the enlargement specification.
2.If highlighting function is used, be aware as there might have smearing problem occur due to the characters.
3.This command can be used only when option Kanji ROM is installed.

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<&>	</>	<0>	<WD>			

8.12 Font

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

24 × 24 dot Horizontal Text Flow Kanji Specification (Valid Specification of JIS or Shift JIS)

ESC+K2

HEX Code	ESC	K2	Parameter
	<1B>16	<4B>16<32>16	an~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify width 24 X height 24 dot horizontal text flow Kanji

[Format]
<K2>an~n
● Parameter
a {Kanji Specification Mode} = H :HEX Character Specification
B :Binary Code Specification
I : with smoothing function based on HEX
C : with smoothing function based on binary code
J : with highlighting function base on HEX
D : with highlighting function based on binary code
K : with smoothing and highlighting function based on HEX
E : with smoothing and highlighting function based on binary code
n {Data } = Refer to JIS Kanji Code Table or Shift JIS Kanji Code Table

[Coding Example 1] HEX Character Specification of Shift JIS, horizontal direction ratio:3 times, vertical direction ratio:5 times
<A>
<V>100<H>200<P>2<L>0305
<K2>H81698A94816A83548367815B
<Q>2
<Z>

[Coding Example 2] Binary Specification of JIS, horizontal direction ratio:2 times, vertical direction ratio:3 times
<A>
<V>100<H>200<P>2<L>0203
<K2>B!J3t!K%5%H!<
<Q>2
<Z>

[Supplementary Explanation]
1.HEX Character = Kanji Code 4 byte ASCII/Kanji 1 Character
2.Binary Code = Kanji Code 2 byte/Kanji 1 Character
3.Smoothing Function Valid Ratio = Horizontal, Vertical valid range : 3~12 times
4.Highligihing Function Valid Ratio = Horizontal, Vertical valid range : 1~5 times

[Point]
1.For the highlighting function, the horizontal width of characters increase if follow the enlargement specification.
2.If highlighting function is used, be aware as there might have smearing problem occurs due to the characters.
3.This command can be used only when option Kanji ROM is installed.

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<&>	</>	<0>	<WD>			

8.13 Font

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

16 × 16 dot Horizontal Text with Mixture of half-sized, full-sized Kanji (Valid Specification of Shift JIS)

ESC+K8

HEX	ESC	K8	Parameter
	<1B>16	<4B>16<38>16	an~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify print mixture of width 16 X height 16 dot horizontal text kanji with width 8 X height 16 dot half-sized character.

[Format]

<K8>an~n

● Parameter

a {Kanji Specification Mode} = H :HEX Character Specification
B :Binary Code Specification
I : with smoothing function based on HEX
C : with smoothing function based on binary code
J : with highlighting function base on HEX
D : with highlighting function based on binary code
K : with smoothing and highlighting function based on HEX
E : with smoothing and highlighting function based on binary code

n {Data } = Refer to Shift JIS Kanji Code Table

[Coding Example] HEX Character Specification of shift JIS, horizontal direction ratio:3 times, vertical direction ratio:5 times
Data:SATO Corporation

```
<A>
<V>100<H>200<P>2<L>0305
<K8>H8A948EAE89EF8ED0BBC42D
<Q>2
<Z>
```

[Supplementary Explanation]

1.HEX Character = Kanji Code 4 byte ASCII/Kanji 1 character
2.Binary Code = Kanji Code 2 byte/Kanji 1 character
3.Smoothing Function Valid Ratio = Horizontal, Vertical valid range : 3~12 times
4.Highlight Fucntion Valid Ratio = Horizontal, Vertical valid range : 1~5 times

[Point]

1.For the highlighting function, the horizontal width of characters increase if follow the enlargement specification.
2.If highlighting function is used, be aware as there might have smearing problem occurs due to the characters.
3.The valid specification of 16X16 dot horizontal text with mixture of half-sized, full-sized Kanji Specification <K8> is limited in Shift JIS Kanji Code only.
4.Half-sized specification (character code of 1 byte) is printed out at size of 8x16 dot.
5.Full-sized specification (character code of 2 byte) is printed out at size of 16X16 dot.
6.Half-sized character has no relation with Kanji Gothic Style Specification <KG>, it is printed out by Mincho Style.
7.This command can be used only when option Kanji ROM is installed.

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<&>	</>	<0>	<WD>			

8.14 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

24 × 24 dot Horizontal Text with Mixture of Half-sized, Full-sized Kanji Specification (Valid Specification of Shift JIS)	ESC+K9

HEX Code	ESC	K9	Parameter
	<1B>16	<4B>16<39>16	an~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify print mixture of width 24 X height 24 dot horizontal text kanji with width 12 X height 24 dot half-sized character.

[Format]

<K9>an~n

● Parameter

a {Kanji Specification Mode} = H :HEX Character Specification
B :Binary Code Specification
I : with smoothing function based on HEX
C : with smoothing function based on binary code
J : with highlighting function base on HEX
D : with highlighting function based on binary code
K : with smoothing and highlighting function based on HEX
E : with smoothing and highlighting function based on binary code

n {Data } = Refer to Shift JIS Kanji Code Table

[Coding Example] HEX Character Specification of shift JIS, horizontal direction ratio:3 times, vertical direction ratio:5 times
Data:SATO Corporation

<A>
<V>100<H>200<P>2<L>0305
<u><K9>H8A948EAE89EF8ED0BBC42D</u>
<Q>2
<Z>

[Supplementary Explanation]

1.HEX Character = Kanji Code 4 byte ASCII/Kanji 1 character
2.Binary Code = Kanji Code 2 byte/Kanji 1 character
3.Smoothing Function Valid Ratio = Horizontal, Vertical valid range : 3~12 times
4.Highlight Fucntion Valid Ratio = Horizontal, Vertical valid range : 1~5 times

[Point]

1.For the highlighting function, the horizontal width of characters increase if follow the enlargement specification.
2.If highlighting function is used, be aware as there might have smearing problem occurs due to the characters.
3.The valid specification of 24 X 24 dot horizontal text with mixture of half-sized, full-sized Kanji Specification <K9> is limited for Shift JIS Kanji Code only.
4.Half-sized specification (character code of 1 byte) is printed out at size of 12x24 dot.
5.Full-sized specification (character code of 2 byte) is printed out at size of 24X24 dot.
6.Half-sized character has no relation with Kanji Gothic Style <KG>, it is printed out by Mincho Style.
7.This command can only be used when option Kanji ROM is installed.

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<&>	</>	<0>	<WD>			

8.15 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

16×16 dot Vertical Text Flow Kanji Specification (Valid Specification of JIS or Shift JIS)	ESC+k1

HEX Code	ESC	k1	Parameter
	<1B>16	<6B>16<31>16	an~n
Defualt Value	NIL		

Valid Range & Terms of Command	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify vertical text flow kanji at width 16 X height 16 dot.

[Format]

<k1>an~n

● Parameter

a {Kanji Specification Code} = H :HEX Character Specification
B :Binary Code Specification
I : with smoothing function based on HEX
C : with smoothing function based on binary code
J : with highlighting function base on HEX
D : with highlighting function based on binary code
K : with smoothing and highlighting function based on HEX
E : with smoothing and highlighting function based on binary code

n {Data} = Refer to JIS Kanji Code Table or Shift JIS Kanji Code Table

[Coding Example 1] HEX Character Specification of Shift JIS, horizontal direction ratio:3 times, vertical direction ratio:5 times

```
<A>
<V>100<H>200<P>2<L>0305
<k1>H81698A94816A83548367815B
<Q>2
<Z>
```

[Coding Example 2] JIS Binary Specification, horizontal direction ratio:2 times, vertical direction ratio:3 times

```
<A>
<V>100<H>200<P>2<L>0203
<k1>B!J3t!K%5%H!<
<Q>2
<Z>
```

[Supplementary Explanation]

1.HEX Character = Kanji Code 4 byte ASCII/Kanji 1 character
2.Binary Code = Kanji Code 2 byte/Kanji 1 character
3.Smoothing Function Valid Ratio = Horizontal, Vertical valid range : 3~12 times
4.Highlight Fucntion Valid Ratio = Horizontal, Vertical valid range : 1~5 times

[Point]

1.For the highlighting function, the horizontal width of characters increase if follow the enlargement specification.
2.If highlighting function is used, be aware as there might have smearing problem occurs due to the characters.
3.This command can be used only when option Kanji ROM is installed.

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<&>	</>	<0>	<WD>			

8.16 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

24 × 24 dot Vertical Text Flow Kanji Specification (Valid Specification of JIS or Shift JIS)	ESC+k2

HEX Code	ESC	k2	Parameter
	<1B>16	<6B>16<32>16	an~n
Defualt Value	NIL		

Valid Range & Terms of Command	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify vertical text flow kanji at width 24 X height 24 dot.

[Format]

<k2>an~n

● Parameter

a {Kanji Specification Mode} = H :HEX Character Specification
B :Binary Code Specification
I : with smoothing function based on HEX
C : with smoothing function based on binary code
J : with highlighting function base on HEX
D : with highlighting function based on binary code
K : with smoothing and highlighting function based on HEX
E : with smoothing and highlighting function based on binary code

n {Data} = Refer to JIS Kanji Code Table or Shift JIS Kanji Code Table

[Coding Example 1] HEX Character Specification of Shift JIS, horizontal direction ratio:3 times, vertical direction ratio:5 times

```
<A>
<V>100<H>200<P>2<L>0305
<k2>H81698A94816A83548367815B
<Q>2
<Z>
```

[Coding Example 2] Binary Specification of JIS, horizontal direction ratio:2 times, vertical direction ratio:3 times

```
<A>
<V>100<H>200<P>2<L>0203
<k2>B!J3t!K%5%H!<
<Q>2
<Z>
```

[Supplementary Explanation]

1.HEX Character = Kanji Code 4 byte ASCII/Kanji 1 character
2.Binary Code = Kanji Code 2 byte/Kanji 1 character
3.Smoothing Function Valid Ratio = Horizontal, Vertical valid range : 3~12 times
4.Highlight Fucntion Valid Ratio = Horizontal, Vertical valid range : 1~5 times

[Point]

1.For the highlighting function, the horizontal width of characters increase if follow the enlargement specification.
2.If highlighting function is used, be aware as there might have smearing problem occurs due to the characters.
3.This command can be used only when option Kanji ROM is installed.

[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<&>	</>	<0>	<WD>			

8.17 Font

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

16×16 dot Vertical Text with Mixture of Half-sized, Full-sized Kanji Specification (Valid Specification of Shift JIS)

ESC+k8

HEX Code	ESC	k8	Parameter
	<1B>16	<6B>16<38>16	an~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify mix specification of width 16 X height 16 dot vertical text with width 8 X height 16 dot half-sized character.

[Format]

<k8>an~n

- Parameter

a {Kanji Specification Mode} = H :HEX Character Specification
B :Binary Code Specification
I : with smoothing function based on HEX
C : with smoothing function based on binary code
J : with highlighting function base on HEX
D : with highlighting function based on binary code
K : with smoothing and highlighting function based on HEX
E : with smoothing and highlighting function based on binary code

n {Data } = Refer to Shift JIS Kanji Code Table

[Coding Example] HEX Character Specification of Shift JIS, horizontal direction ratio:3 times, vertical direction ratio:5 times
Data:SATO Corporation

```
<A>
<V>100<H>200<P>2<L>0305
<k8>H8A948EAE89EF8ED0BBC42D
<Q>2
<Z>
```

[[Supplementary Explanation]

1.HEX Character = Kanji Code 4 byte ASCII/Kanji 1 character
2.Binary Code = Kanji Code 2 byte/Kanji 1 character
3.Smoothing Function Valid Ratio = Horizontal, Vertical valid range : 3~12 times
4.Highlight Fucntion Valid Ratio = Horizontal, Vertical valid range : 1~5 times

[Point]

1.For the highlighting function, the horizontal width of characters increase if follow the enlargement specification.
2.If highlighting function is used, be aware as there might have smearing problem occurs due to the characters.
3.The valid specification of 16 X 16 dot vertical text with mixture of half-sized, full-sized kanji specification <k8> is limited for Shift JIS Kanji Code only.
4.Hafl-sized specification (character code of 1 byte) is printed out at size of 8x16 dot.
5.Full-sized specification (character code of 2 byte) is printed out at size of 16X16 dot.
6.Half-sized character has no relation with Kanji Gothic Style Specification <KG>, it is printed out by Mincho Style.
7.This command can be used only when option Kanji ROM is installed.

[NOTE]

1. When characters with a sonant mark/half sonant mark at half-sized specification is choosen, characters and part of sonant mark/half sonant mark turns out to be different printing.
Example: if{ﾊﾞ}is specified, it comes out with{ﾊ}{ﾞ}{-}.



[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<&>	</>	<0>	<WD>			

8.18 Font

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

24 × 24 dot Vertical Text with Mixture of Half-sized, Full-sized Kanji Specification (Valid Specification of Shift JIS)

ESC+k9

HEX Code	ESC	k9	Parameter
	<1B>16	<6B>16<39>16	an~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify the mixture of print specification of width 24 X height 24 dot vertical text kanji with width 12 X height 24 dot half-sized character.

[Format]

<k9>an~n

● Parameter

a {Kanji Specification Mode} = H :HEX Character Specification
B :Binary Code Specification
I : with smoothing function based on HEX
C : with smoothing function based on binary code
J : with highlighting function base on HEX
D : with highlighting function based on binary code
K : with smoothing and highlighting function based on HEX
E : with smoothing and highlighting function based on binary code

n {Data } = Refer to Shift JIS Kanji Code Table

[Coding Example] HEX Character Specification of Shift JIS, horizontal direction ratio:3 times, vertical direction ratio:5 times, Data:SATO Corporation

```
<A>
<V>100<H>200<P>2<L>0305
<k9>H8A948EAE89EF8ED0BBC42D
<Q>2
<Z>
```

[Supplementary Explanation]

1.HEX Character = Kanji Code 4 byte ASCII/Kanji 1 character
2.Binary Code = Kanji Code 2 byte/Kanji 1 character
3.Smoothing Function Valid Ratio = Horizontal, Vertical valid range : 3~12 times
4.Highlight Fucntion Valid Ratio = Horizontal, Vertical valid range : 1~5 times

[Point]

1.For the highlighting function, the horizontal width of characters increase if follow the enlargement specification.
2.If highlighting function is used, be aware as there might have smearing problem occurs based on characters.
3.The valid specification of 24 X 24 dot vertical text with half-sized, full-sized kanji specification <k9> is limited for Shift JIS Kanji Code only.
4.Half-sized specification (character code of 1 byte) is printed out at size of 12 X 24 dot.
5.Full-sized specification (character code of 2 byte) is printed out at size of 24 X 24 dot.
6.Half-sized character has no relation with Kanji Gothic Style Specification <KG>, it is printed out by Mincho Style.
7.This command can be used only when option Kanji ROM is installed.

[NOTE]

1. When characters with sonant mark/half sonant mark at the half-sized specification is choosen, characters and part of sonant mark/half sonant mark turns out to be different printing.
Example: if{ﾊﾞ −}is specified, it comes out with{ﾊ}{゛}{-}.



[Valid Command]

Print Position	<V>	<H>								
Modification	<P>	<L>	<%>	<&>	</>	<0>	<WD>			

8.19 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

16 × 16 dot External Word Registration Specification — ESC+T1

HEX Code	ESC	T1	Parameter
	<1B>16	<54>16<31>16	abbn~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify external word at width 16 X height 16 dot.

[Format]

<T1>abbn~n

● Parameter

a {Select Type of Registration Data} = H : HEX Character Registration Data
B : Binary Code Registration Data

b {Code Address of Registered Font}

<JIS Code Specification>
H : "21"~"7F" Max size that can be registered in this range: 95
B : 21H~7FH Max size that can be registered in this range: 95
<Shift JIS Specification>
H : "40"~"9E" Max size that can be registered in this range: 95
B : 40H~9EH Max size that can be registered in this range: 95

n {External Word Registration Data}

[Coding Example 1] HEX Character Registration Data of JIS

```
<A>
<T1>H21
00FF ·····FF00
<Z>

<A>
<V>100<H>200<K1>H9021
<Q>2
<Z>
```

[Coding Example 2] Binary Code Registration Data of JIS

```
<A>
<T1>B<40>16
<00FF ·····FF00>16
<Z>

<A>
<V>100<H>200<K1>B<90>16<40>16
<Q>2
<Z>
```

[Supplementary Explanation]

1.To register external word of width 16 X height 16 dot into the internal memory.

2.Code which is specified at Registration Font Code Address combines itself with the “Kanji Code Mode” that is set in the printer, and then specify address of either JIS Code or Shift JIS Code.

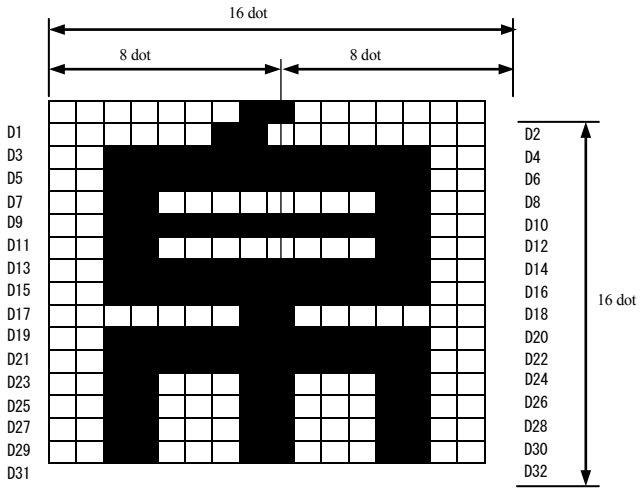
3.Area that has been registered before is valid for re-registration.

4.Register order of data is shown as follow.

5.If external word is registered inside of printer memory, it will be erased once printer power is turned OFF. In this case re-register is necessary.

External Word File{16X16}

D1	D2
D3	D4
D5	D6
⏐	⏐
D31	D32



To register the above external word, D1 and D2 is formed by{00000001}and{10000000}respectively. Each D1 and D2 data becomes <01>$_{16}$ and <80>$_{16}$.

Onwards, as such D3 is <03>$_{16}$, D4 is <00>$_{16}$, D5 is <3F>$_{16}$, D6 is <FC>$_{16}$, external word registration data becomes the specification of <018003003FFC·····>$_{16}$ and until D32.

8.20 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

24 × 24 dot External Word Register Specification — ESC+T2

HEX Code	ESC	T2	Parameter
	<1B>16	<54>16<32>16	abbn~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify external word at width 24 X height 24 dot.

[Format]

<T2>abbn~n

● Parameter

a {Select Type of Registration Data} = H : HEX Character Registration Data
B : Binary Code Registration Data

b {Code Address of Registrated Font}

<JIS Code Specification>
H : "21"~"7F" Max size that can be registered in this range :95
B : 21H~7FH Max size that can be registered in this range: 95
<Shift JIS Specification>
H : "40"~"9E" Max size that can be registered in this range: 95
B : 40H~9EH Max size that can be registered in this range: 95

n {External Word Registration Data}

[Coding Example 1] HEX Character Registration Data of JIS

```
<A>
<T2>H21
00FF ·····FF00
<Z>

<A>
<V>100 <H>200 <K2>H9021
<Q>2
<Z>
```

[Coding Example 2] Binary Code Registration Data of Shift JIS

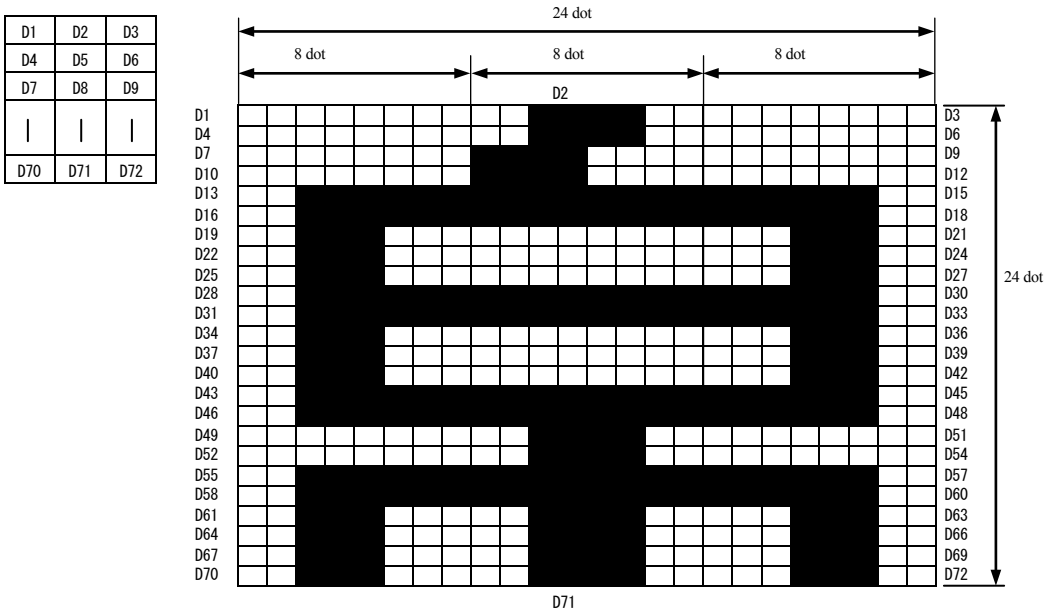
```
<A>
<T2>B<40>16
00FF ·····FF00
<Z>

<A>
<V>100 <H>200 <K2>B<90>16<40>16
<Q>2
<Z>
```

[Supplementary Explanation]

1. Register external word of width 24 X height 24 dot inside of internal memory
2. Code whish is specified at Registration Font Code Address combines itself with the “Kanji Code Mode” that is set in the printer, and then specify address of either JIS Code or Shift JIS Code.
3. Area that has been registered before is valid for re-registration.
4. Outpur order of data is shown as follow.
5. If external word is registered inside of printer memory, it will be erased once printer power is turned OFF. In this case re-register is necessary.

External Word File{24X24}



To register the above external word, D1 , D2 and D3 is formed by{00000000}, {00111100},{00000000}respectively.
Each D1, D2 and D3 data is $<00>_{16}$, $<3C>_{16}$, $<00>_{16}$.
Onwards, as such D4 is $<00>_{16}$, D5 is $<3C>_{16}$, D6 is $<00>_{16}$. External Registration Data becomes specification of $<003C00003C00\cdots\cdots>_{16}$ and until D72.

8.21 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

External Character Re-Call Horizontal Text Flow Specification

ESC+K1(K2)

HEX Code	ESC	K1(K2)	Parameter
	<1B>16	<4B>16<31>16(<4B>16<32>16)	ab~b
Default Value	NIL		

Valid Range & Terms of Command	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify re-call print specification of horizontal text flow of external character registered in the printer memory.

[Format]

<K1>ab~b

<K2>ab~b

● Parameter

a{External Character Specification Mode}=H :HEX Character Specification
B :Binary Code Specification
I : with smoothing function based on HEX
C : with smoothing function based on binary code
J : with highlighting function base on HEX
D : with highlighting function based on binary code
K : with smoothing and highlighting function based on HEX
E : with smoothing and highlighting function based on binary code

b{Registration Code} <JIS Code Specification>
H, I, J, K : “9021”~ “907F”
B, C, D, E : 9021H~907FH
<Shift JIS Code Specification>
H, I, J, K : “F040”~“F09E”
B, C, D, E : F040H~F09EH

[Coding Example 1] 16X16 External Character Call-out Specification HEX Character Registration Data of JIS

```
<A>
<T1>H21
00FF ……FF00
<Z>

<A>
<V>100<H>200<K1>H9021
<Q>2
<Z>
```

[Coding Example 2] 24X24 External Character Call-out Specification Binary Code Registratin Data of Shift JIS

```
<A>
<T2>B<40>16
00FF ……FF00
<Z>

<A>
<V>100<H>200<K2>B<90>16<40>16
<Q>2
<Z>
```

[Supplementary Explanation]

1.Re-register if normal printing is not working.

8.22 Font

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

External Character Re-Call Vertical Text Flow Specification

ESC+k1(k2)

HEX Code	ESC	k1(k2)	Parameter
	<1B>16	<6B>16<31>16(<6B>16<32>16)	ab~b
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify re-call print specification of vertical text flow of external character registered in the printer memory.

[Format]

<k1>abbn~n

<k2>abbn~n

● Parameter

a{External Character Specification Mode}= H :HEX Character Specification
B :Binary Code Specification
I : with smoothing function based on HEX
C : with smoothing function based on binary code
J : with highlighting function base on HEX
D : with highlighting function based on binary code
K : with smoothing and highlighting function based on HEX
E : with smoothing and highlighting function based on binary code

b{Registration Code} <JIS Code Specification>
H, I, J, K : "9021"~ "907F"
B, C, D, E : 9021H~907FH
<Shift JIS Code Specification>
H, I, J, K : "F040"~"F09E"
B, C, D, E : F040H~F09EH

[Coding Example 1] 16X16 External Character Call-out Specification HEX Character Registration Data of JIS

<A>
<T1>H21
00FF ……FF00
<Z>

<A>
<V>100<H>200**<k1>H9021**
<Q>2
<Z>

[Coding Example 2] 24X24 External Character Call-out Specification Binary Code Registration Data of Shift JIS

<A>
<T2>B<40>16
00FF ……FF00
<Z>

<A>
<V>100<H>200**<k2>B<90>16<40>16**
<Q>2
<Z>

[Supplementary Explanation]

1.Re-register if normal printing is not working.

9. Barcode Specification Outline

From the specification (B, D, BD) followed with ESC, barcode specification can change every type of bardcode printing and every barcode ratio, includes print out guide bar as well as explanation character.
Content change based on specification, use it after understand the content of this page and the following page.
Below shows the outline of each specification (B, D, BD)

[Barcode Ratio Specification]

Barcode Specification Parameter	Barcode Specification	<B> Specification	<D> Specification	<BD> Specification
0	NW-7	1:3	1:2	2:5
1	CODE39	1:3	1:2	2:5
2	Interleaved 2of5	1:3	1:2	2:5
5	Industrial 2of5	1:3	1:2	2:5
6	Matrix 2of5	1:3	1:2	2:5

(1)Barcode Ratio

Barcode is formed by narror bar, wide bar, narror space and wide space. Barcode ratio refers to the ratio between narrow bar (thin bar) and wide bar (thick bar).

Barcode Specification (ratio 1: 3) <B>
Barcode of Barcode Ratio 1: 3 is formed by thick bar "3" against thin bar "1".
Barcode Specification (ratio 1: 2) <D>
Barcode of barcode ratio 1: 2 is formed by thick bar "2" against thin bar "1".
Barcode Specification (ratio 2: 5) <BD>
Barcode of barcode ratio 2: 5 is formed by thick bar "5" against thin bar "2".

When barcode ratio is specified optionally, register the ratio by barcode ratio specification <BT>, label can be printed by ratio specifed Barcode Print Specification <BW>.

(2)Thin Bar Width and Barcode Height

Thin bar width is the thickness of narrow bar, while barcode height refers to the height of barcode.
For example, if thin bar width is printed by printer head density of 12 dot/mm (3056dpi), the thickness of narrow bar will become 0.083mm and unreadable at the barcode scanner. At this point specify the thin bar width at 2, the thickness of narrow bar will become 0.166, the read aptitude will be improved.
It is necessary to set thin bar width to fit to the printer head density and barcode scanner function.
Barcode ratio specified the thickness of bar by "thin bar width" specification.
Example: if barcode ratio =1:3, thin bar width:3 (dot), barcode ratio becomes 3:9
Barcode height is to specify the height of barcode, it set an appropriate height based on scanner form.

(3)Character Gap

Character gap is the space to differenciate between the barcode character and the following barcode character.
To specify character gap, barcode specification <B><D><BD> becomes valid by specifying Character Ptich Specification <P> right before Barcode Print Specification <BW> at ratio registration. If that specification is not done, it turns out to be default value (2 dot).

The following is the barcode type for character gap to specify.
①NW-7
②CODE39
③Industrial 2 of 5
④Matrix 2 of 5

Character gap is the multiplier of value get from Chracter Pitch Specification <P> and Thin Bar Width.
Example: if Character Pitch Specification <P>3, thin bar width (2 dot), it turns out to be Character Pitch = 3 X 2 = 6 (dot)

(4)Explanation Character, Guide Bar Specification

UPC-A, JAN/EAN8 / 13 digit barcode can specify the availability of Explanation Character and Guide Bar.

Barcode Specification Parameter	Barcode Specification	<B> Specification	<D> Specification	<BD> Specification
3	JAN/EAN-13	Explanation Character NIL Guide Bar NIL	Explanation Character NIL Guide Bar YES	Explanation Character YES Guide Bar YES
4	JAN/EAN-8	Explanation Character NIL Guide Bar NIL	Explanation Character NIL Guide Bar YES	Explanation Character YES Guide Bar YES
H	UPC-A	Explanation Character NIL Guide Bar NIL	Explanation Character NIL Guide Bar YES	Explanation Character YES Guide Bar YES

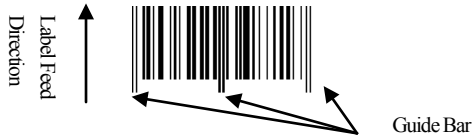
① <B> Specification (Explanation Character : NIL, Guide Bar : NIL)

when <B> is specified, print the following barcode.



② <D> Specification (Explanation Character : NIL, Guide Bar : YES)

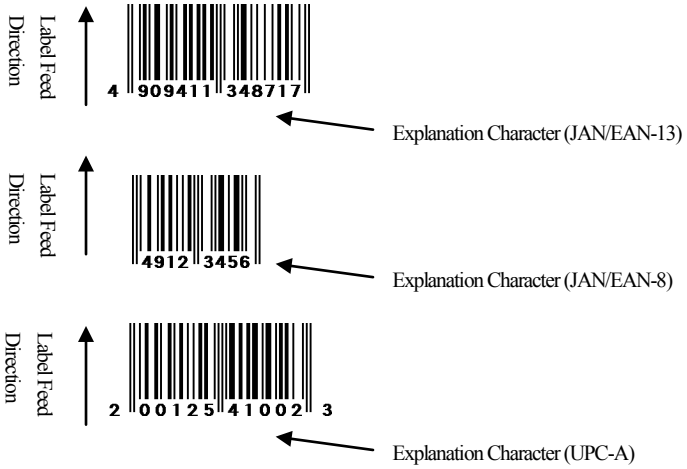
when <D> is specified, print the following barcode.



[Supplementary]By specifying <Character Type> data after <D> specification, explanation character can be printed out.
Refer to Barcode Specification (Explanation Character selection) <D> ~ <d>

③ <BD> Specification (Explanation Character : YES, Guide Bar : YES)

when <BD> is specified, print the following barcode



[Specification for Barcode only]

Barcode Specification Parameter	Barcode Specification	<B> Specification
C	CODE93	Barcode only
E	UPC-E	Barcode only
G	CODE128	Barcode only
I	Standard Carton for ID UCC/EAN128	Barcode only

(NOTE)

1. Barcode without specification of Barcode Ratio, Explanation Character.

(5)Formation of Check Digit

The check digit of each barcode is shown as following table.

[C/D Formation]

Barcode Specification Parameter	Barcode Specification	Input Digit	Print Digit and Content
3	JAN/EAN-13	12 digit	13 digit (barcode input data + C/D) C/D calculation is done automatically by modulus 10.
		13 digit	13 digit (barcode input data. Does not performed C/D check)
4	JAN/EAN-8	7 digit	8 digit (barcode input data + C/D) C/D calculation is done automatically by modulus 10.
		8 digit	8 digit (barcode input data. Does not performed C/D check)
C	CODE93	Max 99 digit	C/D calculation is done automatically by modulus 47.
E	UPC-E	6 digit only	C/D calculation is done automatically by modulus 10.
G	CODE128	-	C/D calculation is done automatically by modulus 103.
H	UPC-A	11 digit only	12 digit (barcode input data + C/D) C/D calculation is done automatically by modulus 10.
I	Standard Carton for ID UCC/EAN128	17 digit only	C/D calculation is done automatically by modulus 103.

*C/D refers to Check Digit

Barcode Rotate Printing

Barcode rotate printing is valid, however, when Serial 1 and Serial 2 is specified and rotated, print ink may spread due to the Barcode enlargement ratio.

Parallel 1:Print in order direction

Parallel2:Print in order and opposite direction (rotate 180°)

※Order direction is a horizontal direction to the label feed direction.

Serial 1:Rotate order direction printing at 90° and print

Serial 2:Rotate order direction printing at 270° and print

1) When printing is performed by parallel 1 and 2, specify the enlargement ratio of bar width so that printing becomes 2 dot above if the head density of narrow bar is at 8 dot/mm, 12 dot/mm, and 4 dot above if narrow bar head density is at 24 dot/mm. (L shows enlargement ratio aginst the bar ratio)

	Head Density		
	8 dot/mm	12 dot/mm	24 dot/mm
Bar Ratio 1:2	Above 2L	Above 2L	Above 4L
Bar Ratio 1:3	Above 2L	Above 2L	Above 4L
Bar Ratio 2:5	Above 1L	Above 1L	Above 2L
UPC-A/JAN/EAN	Above 2L	Above 2L	Above 4L

2)When printing is performed by Serial 1 and 2, specify the enlargement ratio of bar width so that printing becomes 3 dot above if the head density of narrow bar is at 8 dot/mm, 12 dot/mm and 6 dot above if the head density of narrow bar is at 24 dot/mm.

3)When printing is performed by Serial 1 & 2, use it before print speed is reduced.

	Head Density		
	8 dot/mm	12 dot/mm	24 dot/mm
Bar Ratio 1:2	Above 3L	Above 3L	Above 6L
Bar Ratio 1:3	Above 3L	Above 3L	Above 6L
Bar Ratio 2:5	Above 2L	Above 2L	Above 4L
UPC-A/JAN/EAN	Above 3L	Above 3L	Above 6L

9.1 Barcode

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Barcode Specification (Ratio 1:3)

ESC+B

HEX Code	ESC	B	Parameter
	<1B>16	<42>16	abbcccn~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify narrow bar and wide bar of barcode ratio 1:3

[Format]

<B>abbcccn~n

● Parameter

a	{Barcode Type}	=	refer to table below
b	{Thin Bar Width}	=	valid range : 01~12 (dot)
c	{Barcode Height}	=	valid range : 001~999 (dot)
n	{Print Data}	=	data

Barcode Type (there might not have ratio of module formation according to the barcode)

a	Barcode Type	Content	Ratio
0	NW-7(Codabar)	Do setting includes start/stop character in print data. Start/stop character becomes{A, B, C, D, E, N, T, a, b, c, d, e, n, t} e.g.) when barcode print data is{123}, specify{A123A}. Barcode character pitch becomes valid. Refer to NW-7 code table for print data.	1:3
1	CODE39	Do setting includes start/stop character in print data. Start/stop character becomes{*}. e.g.) when barcode print data is{12345}, specify{*12345*}. Barcode character pitch becomes valid. Refer to CODE39 code table for print data.	1:3
2	Interleaved 2 of 5	Specify print data by Even Number Digit. Add "0" in front of print data if specification is done by Odd Number Digit. Refer to Interleaved 2 of 5 code table for print data.	1:3
3	JAN/EAN-13	Becomes barcode of Guide Bar:NIL, Explanation Character:NIL Refer to JAN/EAN13 code table for print data.	Fixed
4	JAN/EAN-8	Becomes barcode of Guide Bar:NIL, Explanation Character:NIL. Refer to JAN/EAN8 code table for print data.	Fixed
5	Industrial 2 of 5	Barcode character pitch becomes valid. Refer to industrial 2 of 5 code table for print data.	1:3
6	Matrix 2 of 5	Barcode character pitch becomes valid. Refer to Matrix 2 of 5 code table for print data.	1:3
A	MSI	Print data can be specified until 13 digits figure. Refer to MSI code table for print data.	Fixed
C	CODE93	Refer to CODE93 Specification <BC>.	Fixed
E	UPC-E	Specify 6 digits figure for print data. Refer to UPC-E code table for print data.	Fixed
F	Bookland	Refer to Bookland Specification <BF>	Fixed
G	CODE128	Refer to CODE128 Specification <BG>	Fixed
H	UPC-A	Becomes barcode of Guide Bar:NIL, Explanation Character:NIL Refer to UPC-A code table for print data.	Fixed
I	UCC/EAN128	Refer to UCC/EAN128 <BI>.	Fixed
P	Postnet	Refer to Postnet Specification <BP>	Fixed

[Coding Example 1] Barcode Type:CODE39, thin bar width:03, barcode height:120, print data:*1234AB*

<A>
<V>100<H>100**<B>103120*1234AB***
<Q>2
<Z>

[Coding Example 2] Barcode Type:JAN-8, thin bar width:02, barcode height:080, print data:4912345

<A>
<V>100<H>100**<B>4020804912345**
<Q>2
<Z>

[Supplementary Explanation]

1.NW-7, CODE39, Industrial 2 of 5, Matrix 2 of 5 can specify barcode character pitch.
For specification method, by specifying right before the Character Pitch Specification <P>, it will become barcode character pitch specification.
To omit, the width becomes as similar as thin space width.
e.g.) Character Pitch Specification (NIL or 0.1) X Thin Bar Width (2 dot) = Character Pitch (2 dot)
Character Pitch Specification (2) X Thin Bar Width (3 dot) = Character Pitch (6 dot)

[Point]

1.If value not within the valid range is set, it will become command error, barcode printing will be stopped.
2.Printing may exceed print area if thin bar width is enlarged.
3.If the valid barcode of character pitch enlarge the Character Pitch <P>, it may not be read by the scanner. And the reading ratio will become worser if thin bar width is enlarged. Details can be referred to the scanner specification.
4.Specify the thin bar width where the scanner read condition shall put into consideration.
5.If the reading is worse, adjust the Print Speed Specification <CS> and Print Darkness Specification <#E>.
6. When NW-7 and CODE39 is specified, if Start/Stop Character is not included in the print data, although barcode can be printed out but it is unreadable at the scanner.
7.When JAN/EAN-13, JAN/EAN-8 is specified, if C/D which is included inside of the print data is sent, set an accurate calculation value. If inaccurate C/D is included, only barcode is printed out but it is unreadable at the scanner.

9.2 Barcode

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Barcode Specification (ratio 1 : 2)

ESC+D

HEX Code	ESC	D	Parameter
	<1B>16	<44>16	abbcccn~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify barcode ratio of 1 : 2 of narrow bar and wide bar.

[Format]

<D>abbcccn~n

● Parameter

a	{Barcode Type}	=	Refer to the following table
b	{Thin Bar Width}	=	01~12 (dot)
c	{Barcode Height}	=	001~999 (dot)
n	{Print Data}	=	Data

Barcode Type (The ratio of module structure may not exist based on different barcode)

a	Barcode Type	Content	Ratio
0	NW-7(Codabar)	Set Start/Stop Character at Print Data. Start/Stop Character becomes {A, B, C, D, E, N, T, a, b, c, d, e, n, t} e.g.) If barcode print data is{123}, specify it as{A123A}. Barcode character pitch becomes valid. Print data can be referred to NW-7 code table.	1:2
1	CODE39	Set Start/Stop character at Print Data. Start/Stop Character becomes{*}. e.g.) If barcode print data is{12345}, specify it as{*12345*}. Barcode character pitch becomes valid. Print data can be referred to CODE39 code table.	1:2
2	Interleaved 2 of 5	Specify the print data at even number digit. If odd number digit is specified, fill a “0” at the beginning of print data. Print data can be referred to Interleaved 2 of 5 code table.	1:2
3	JAN/EAN-13	Guide Bar : YES, Explanation Character : NIL Print data can be referred to JAN/EAN-13 code table.	Fixed
4	JAN/EAN-8	Guide Bar : YES, Explanation Character : NIL Print data can be referred to JAN/EAN-8 code table.	Fixed
5	Industrial 2 of 5	Barcode character pitch becomes valid. Print data can be referred to Industrial 2 of 5 code table.	1:2
6	Matrix 2 of 5	Barcode character pitch becomes valid. Print data can be referred to Matrix 2 of 5 code table.	1:2
H	UPC-A	Guide bar : YES, Explanation Character : NIL Print data can be referred to UPC-A code table.	Fixed

[Coding Example 1] Barcode Type : NW-7, Thin Bar Width : 03, Barcode Height : 120, Print Data : A1234A

```
<A>
<V>100<H>100<D>003120A1234A
<Q>2
<Z>
```

[Coding Example 2] Barcode Type : Interleaved 2 of 5, Thin Bar Width : 04, Barcode Height : 240, Print Data : 98002345678163

<A>
<V>100<H>100**<D>20424098002345678163**
<Q>2
<Z>

[Coding Example 3] Barcode Type : UPC-A, Thin Bar Width : 02, Barcode Height : 120, Print Data : 20123948573

<A>
<V>240<H>100**<D>H0212020123948573**
<Q>2
<Z>

[Supplementary Explanation]

1.NW-7, CODE39, Industrial 2 of 5, Matrix 2 of 5 Barcode Character Pitch is available for specification.
For specification method, by specified right before Character Pitch Specification <P>, it becomes barcode character pitch.
To omit, the width is as similar as thin space width.
e.g.) Character Pitch Specification (NIL or 0.1) X Thin Bar Width (2 dot) = Character Pitch (2 dot)
Character Pitch Specification (2) X Thin Bar Width (3 dot) = Character Pitch (6 dot)

[Point]

1.If value not within the valid range is set, it becomes a command error, barcode printing will be stopped.
2.Printing may exceed print area if thin bar width is enlarged.
3.If the valid barcode of character pitch enlarge the Character Pitch <P>, it may not be read by the scanner. And the reading ratio will become worser if thin bar width is enlarged. Details can be referred to the scanner specification.
4.Specify the thin bar width where the scanner reading condition shall put into consideration.
5.If the reading is bad, adjust Print Speed Specification <CS> and Print Darkness Specification <#E>.
6.When NW-7 and CODE39 is specified, if Start/Stop Character is not included at the print data, although barcode can be printed out but it is unreadable at the scanner.
7.When JAN/EAN-13, JAN/EAN-8 is specified, if C/D which is included inside of the print data is sent, set an accurate calculation value. If inaccurate C/D is included, only barcode is printed but it is unreadable at the scanner.

9.3 Barcode

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Barcode Specification (Explanation Word Selection)	ESC+D~ ESC+d

HEX Code	ESC	D ~ d	Parameter
	<1B>16	<44>16 ~ Character Type	abbcccn~n + <d>n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify character type of barcode explanation words.

[Format]

<D>abbcccn~n + <d>n~n

● Parameter

a	{Barcode Type}	=	3	:	JAN/EAN-13
			4	:	JAN/EAN-8
			H	:	UPC-A
b	{Thin Bar Width}	=	valid range	:	01~12 (dot)
c	{Barcode Height}	=	valid range	:	001~999 (dot)
n	{Print Data}	=	barcode data		
d	{Character Type Specification}	=	XU		
			XS		
			XM		
			XB		
			XL		
			OA		
			OB		
n	{Print Data}	=	Explanation Word Data		

[Coding Example] Barcode Type: JAN/EAN-13, Thin Bar Width:02, Barcode Height:120,
Barcode Data:4902471006795, Character Type:XS, Explanation Word Data:4902471006795

<A>
<V>100<H>200**<D>3021204902471006795**
<XS>4902471006795
<Q>2
<Z>

[Supplementary Explanation]

1.To add explanation words at the specified character type.
2.Data not within the specified value will not be printed out, when barcode ratio is small, and bigger character type is selected, the explanation word may overlap with each other.
3.Explanation word will be performed further at the appropriate location of printer.
4.The explanation word of JAN/EAN-8, JAN/EAN-13, UPC-A is valid based on the following condition.
8 dot/mm(203dpi): {02},{03}is appropriate for thin bar width value.
12 dot/mm(305dpi): {03},{04}is appropriate for thin bar width value.
24 dot/mm(609dpi): {06},{07},{08}is appropriate for thin bar width value.

9.4 Barcode

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Barcode Specification (ratio 2 : 5)

ESC+BD

HEX Code	ESC	BD	Parameter
	<1B>16	<42>16<44>16	abbcccn~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify barcode ratio of 2 : 5 for narrow and wide bar.

[Format]

<BD>abbcccn~n

● Parameter

a	{Barcode Type}	=	refer to the following table
b	{Thin Bar Width}	=	01~12 (dot)
c	{Barcode Height}	=	001~999 (dot)
n	{Print Data}	=	data

Barcode Type (Ratio of module structure may not exit based on different barcode)

a	Barcode Type	Content	Ratio
0	NW-7(Codabar)	Specify those include Start/Stop Character at print data. Start/Stop Character becomes{A, B, C, D, E, N, T, a, b, c, d, e, n, t}. e.g.) When barcode print data is{123}, specify it with{A123A} Barcode character pitch becomes valid. Print data can be referred to NW-7 code table.	2:5
1	CODE39	Specify those include Start/Stop Character at print data. Start/Stop Character becomes{*}. e.g.) When barcode print data is{12345}, specify it with{*12345*} Barcode character pitch becomes valid. Print data can be referred to CODE39 code table.	2:5
2	Interleaved 2 of 5	Specify print data by even number digit. When specified by odd number digit, fill “0” in the beginning of printer data. Print data can be referred to Interleaved 2 of 5 code table.	2:5
3	JAN/EAN-13	Guide Bar : YES, Explanation Word : YES Print data can be referred to JAN/EAN13 code table.	Fixed
4	JAN/EAN-8	Guide Bar : YES, Explanation Word : YES Print data can be referred to JAN/EAN8 code table.	Fixed
5	Industrial 2 of 5	Barcode character pitch becomes valid. Print data can be referred to Industrial 2 of 5 code table.	2:5
6	Matrix 2 of 5	Barcode character pitch becomes valid. Print data can be referred to Matrix 2 of 5 code table.	2:5
H	UPC-A	Guide Bar : YES, Explanation Word : YES Print data can be referred to UPC-A code table.	Fixed

[Coding Example 1] Barcode Typ e:NW-7, Thin Bar Width:03, Barcode Height:120, Print Data:A1234A

<A>
<V>100<H>100**<BD>003120A1234A**
<Q>2
<Z>

[Coding Example 2] Barcode Type:Interleaved 2 of 5, Thin Bar Width:04, Barcode Height:240, Print Data:98002345678163

<A>
<V>100<H>100**<BD>20424098002345678163**
<Q>2
<Z>

[Coding Example 3] Bacode Type:UPC-A, Thin Bar Width:02, Barcode Height:120, Print Data:20123948573

<A>
<V>240<H>100**<BD>H0212020123948573**
<Q>2
<Z>

[Supplementary Explanation]

1. NW-7, CODE39, Industrial 2 of 5, Matrix 2 of 5 is valid for Barcode Character Pitch Specification.
   For specification method, by specifying right before Character Pitch Specification <P>, it becomes Barcode Character Pitch Specification.
   When omitting, the width is as similar as thin space width.
   e.g.) Character Pitch Specification (NIL or 0.2) X Thin Bar Width (2 dot) = Character Pitch (4 dot)
   Character Pitch Specification (1) X Thin Bar Width (3 dot) = Character Pitch (3 dot)
   Character Pitch Specificatin (3) X Thin Bar Width (3 dot) = Character Pitch (9 dot)
2. The explanation word of JAN/EAN-8, JAN/EAN-13, UPC-A is valid based on the following condition.
   8 dot/mm(203dpi):{02},{03}is appropriate for thin bar width value.
   12 dot/mm(305dpi):{03},{04}is appropriate for thin bar width value
   24 dot/mm(609dpi):{06},{07},{08}is appropriate for thin bar width value

[Point]

1. If value not within the valid range is set, it becomes a command error, barcode printing will be stopped.
2. Printing may exceed print area if thin bar width is enlarged.
3. If the valid barcode of character pitch enlarge the Character Pitch <P>, it may not be read by the scanner. And the reading ratio will become worser if thin bar width is enlarged. Details can be referred to the scanner specification.
4. Specify the thin bar width where the scanner reading condition shall put into consideration.
5. If it is unreadable, adjust Print Speed Specification <CS> and Print Darkness Specification <#E>.
6. When NW-7 and CODE39 is specified, if Start/Stop Character is not included at the print data, although barcode will be printed out but it is unreadable at the scanner.
7. When JAN/EAN-13, JAN/EAN-8 is specified, if C/D which is included inside of the print data is sent, set an accurate calculation value. If inaccurate C/D is included, only barcode is printed out but it is unreadable at the scanner.

9.5 Barcode

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Barcode Ratio Registration Specification — ESC+BT

HEX Code	ESC	BT	Parameter
	<1B>16	<42>16<54>16	abbccddee
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify the ratio of narrow and wide barcode arbitrarily.

[Format]
<BT>abbccddee

● Parameter

a	{Barcode Type}	=	0	:	NW-7(Codabar)
			1	:	CODE39
			2	:	Interleaved 2 of 5
			5	:	Industrial 2 of 5
			6	:	Matrix 2 of 5
b	{Narrow Space}	=	valid range	:	01~99 (dot)
c	{Wide Space}	=	valid range	:	01~99 (dot)
d	{Narrow Bar}	=	valid range	:	01~99 (dot)
e	{Wide Bar}	=	valid range	:	01~99 (dot)

[Coding Example 1] Barcode Type:CODE39, Narrow Space:03, Wide Space:06, Narrow Bar:03, Wide Bar:06

```
<A>
<BT>103060306
<V>100<H>200<BW>01233*ABCD*
<Q>2
<Z>
```

[Supplementary Explanation]

1. Perform print specification of ratio specified barcode after this command where Barcode Print Specification <BW> is specified by ratio registration.
2. Where there is no Barcode Print Specification <BW> and Print Number Specification <Q> at ratio registration, ratio registration of only narrow and wide bar which is specified at Barcode Ratio Specification <BT> will be performed.
3. Registration item is valid only for 1 type.
4. It becomes command error and will not be registered if data not within specification is set.

9.6 Barcode

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Barcode Print Specification from Ratio Specification — ESC+BW

HEX Code	ESC	BW	Parameter
	<1B>16	<42>16<57>16	aabbbn~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify barcode that is registered at Barcode ratio Registration Specification <BT>

[Format]

<BW>aabbbn~n

● Parameter

a	{Thin Bar Width}	=	valid range	:	01~12 (dot)
b	{Barcode Height}	=	valid range	:	001~999 (dot)
n	{Print Data}	=	barcode data		

[Coding Example] Thin Bar Width:02, Barcode Height:120

<A>
<BT>103060306
<V>100<H>200**<BW>02120*ABCD***
<Q>2
<Z>

[Supplementary Explanation]

1. NW-7, CODE39, Industrial 2 of 5, Matrix 2 of 5 is valid for barcode character pitch specification.
   For specification method, by specifying right before Character Pitch Specification <P>, it becomes Barcode Character Pitch Specification.
   To omit, the width is as similar as thin space width.
   e.g.1) When narrow space value is specified at 3 at Barcode Ratio Registration Specification <BT>
   Character Pitch Specification (NIL or 0.3) X Thin Bar Width (2) = Character Pitch (6 dot)
   e.g. 2) When Character Pitch is specified
   Character Pitch Specification (2) X Thin Bar Width (3) = Character Pitch (6 dot)
2. When Barcode Ratio Registration Specification <BT> is not available, print the barcode with the ratio of narrow and wide bar that is registered before hand. However, the barcode will not be printed if Barcode Ratio Registration Specification <BT> is not carried out in advance.
3. Print data of barcode type can be referred to individual barcode code table.

[Point]

1. It becomes command error and will not be registered if data not within specification is set.
2. Printing may exceed print area when thin bar width is enlarged.
3. If the valid barcode of character pitch enlarge the Character Pitch <P>, it may not be read by the scanner. And the reading ratio will become worse if thin bar width is enlarged. Details can be referred to the scanner specification.
4. Specify the thin bar width where the scanner reading condition shall put into consideration.
5. If it is unreadable, adjust Print Speed Specification <CS> and Print Darkness Specification <#E>.
6. When NW-7 and CODE39 is specified, and if start/stop character is not included in the print data, although barcode will be printed out but it is unreadable at the scanner.

NW-7 Code Table

					S					I				S				O			
				b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
				b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
b4	**b3**	**b2**	**b1**		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**F**
0	0	0	0	**0**			SP	0												
0	0	0	1	**1**				1	A		a									
0	0	1	0	**2**				2	B		b									
0	0	1	1	**3**				3	C		c									
0	1	0	0	**4**			$	4	D	T	d	t								
0	1	0	1	**5**				5	E		e									
0	1	1	0	**6**				6												
0	1	1	1	**7**				7												
1	0	0	0	**8**				8												
1	0	0	1	**9**				9												
1	0	1	0	**A**			*	:												
1	0	1	1	**B**			+													
1	1	0	0	**C**																
1	1	0	1	**D**			-													
1	1	1	0	**E**			.		N		n									
1	1	1	1	**F**			/													

CODE39 Code Table

					S					I			S				O			
				b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
				b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
b4	**b3**	**b2**	**b1**		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**F**
0	0	0	0	**0**			SP	0		P										
0	0	0	1	**1**				1	A	Q										
0	0	1	0	**2**				2	B	R										
0	0	1	1	**3**				3	C	S										
0	1	0	0	**4**			$	4	D	T										
0	1	0	1	**5**			%	5	E	U										
0	1	1	0	**6**				6	F	V										
0	1	1	1	**7**				7	G	W										
1	0	0	0	**8**				8	H	X										
1	0	0	1	**9**				9	I	Y										
1	0	1	0	**A**			*		J	Z										
1	0	1	1	**B**			+		K											
1	1	0	0	**C**					L											
1	1	0	1	**D**			-		M											
1	1	1	0	**E**			.		N											
1	1	1	1	**F**			/		O											

9.7 Barcode

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

UCC/EAN128 Specification <for Standard Carton ID>

ESC+BI

HEX Code	ESC	BI	Parameter
	<1B>16	<42>16<49>16	aabbbcn~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify UCC/EAN128 barcode for Standard Carton ID.

[Format]
<BI>aabbbcn~n

● Parameter

a	{Thin Bar Width}	=	valid range	:	01~12 (dot)
b	{Barcode Height}	=	valid range	:	001~999 (dot)
c	{Barcode Explanation Font Specification}	=	0	:	No Explanation Words
			1	:	Explanation Words (on top of barcode)
			2	:	Explanation Words (bottom of barcode)
n	{Print Data}	=	barcode data (17 digits fixed)		

Barcode data can be referred to UCC/EAN128 code table.
EAN128 (barcode for Standard Carton ID) 18 digits fixed
·Identification Data of Continuous Code for Transportation Receptacle
·Package Type
·Country Code, Maker Code
·Sequential Number of Shipping Container
·C/D
* As the C/D is added automatically, therefore the data shall be specified with 17 digits not inclusive of C/D.

[Coding Example] Thin Bar Width:02, Barcode Height:150, Explanation Words:YES (bottom), Print Data:12345678901234567
<A>
<V>100<H>200**<BI>03150012345678901234567**
<Q>2
<Z>

[Supplementary Explanation]
1. A UCC128 code for Standard Carton ID. When they are used to print areas in medical, perishable foods, florist etc with EAN128, specify the print data with application identification or separator which fits to each specification by applying CODE128 Barcode <BG>.
2. Start Character Code / Function Character / End Character Code and Identification Code (apply to only "00") are added automatically.
3. Modulus 10 check character and, modulus 103 check character are created automatically.
4. The sequential number of barcode data is valid.
5. Line pitch of barcode and explanation font is fixed at 10 dot.
6. When explanation font width is larger than barcode width, begins printing from the start position of the barcode.
7. When explanation font width is smaller than barcode width, print the explanation font that fits to the center of barcode.
8. Print the font type of explanation font by OCR-B.
9. When explanation font is not within the print area, it will not be printed out. When explanation font is specified, consider the printing of explanation font, and then specify the Print Vertical Position Specification <V>and Print Horizontal Position Specification <H>.

Interleaved 2 of 5
Matrix 2 of 5
Industrial 2 of 5
UPC-A, JAN/EAN-8
JAN/EAN-13, UPC-E
UCC/EAN128
MSI Code Table

					S			I					S				O			
				b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
				b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
b4	**b3**	**b2**	**b1**		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**F**
0	0	0	0	**0**				0												
0	0	0	1	**1**				1												
0	0	1	0	**2**				2												
0	0	1	1	**3**				3												
0	1	0	0	**4**				4												
0	1	0	1	**5**				5												
0	1	1	0	**6**				6												
0	1	1	1	**7**				7												
1	0	0	0	**8**				8												
1	0	0	1	**9**				9												
1	0	1	0	**A**																
1	0	1	1	**B**																
1	1	0	0	**C**																
1	1	0	1	**D**																
1	1	1	0	**E**																
1	1	1	1	**F**																

9.8 Barcode

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

CODE93 Barcode Specification

ESC+BC

HEX Code	ESC	BC	Parameter
	<1B>16	<42>16<43>16	aabbbccn~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify CODE93 barcode.

[Format]

<BC>aabbbccn~n

● Parameter

a {Thin Bar Width} = valid range : 01~12 (dot)

b {Barcode Height} = valid range : 001~999 (dot)

c {Data Digit Number} = valid range : 01~99

n {Print Data} = barcode data (refer to CODE93 code table)

[Coding Example] Thin Bar Width:02, Barcode Height:120, Digit Number:12, Print Data:ABCD123456xy

<A>

<V>100<H>200**<BC>0212012ABCD123456xy**

<Q>2

<Z>

[Supplementary Explanation]

1.C/D is created automatically.

2.The maximum data input digit numbers is until 99 digits.

3.The data digit number and input data number must be the same.

4.It becomes error if input data number is not as same as data digit number.

CODE93 Code Table

					S					I				S				O			
				b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
				b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
b4	**b3**	**b2**	**b1**		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**F**
0	0	0	0	**0**			SP	0	@	P	`	p								
0	0	0	1	**1**			!	1	A	Q	a	q								
0	0	1	0	**2**			”	2	B	R	b	r								
0	0	1	1	**3**			#	3	C	S	c	s								
0	1	0	0	**4**			$	4	D	T	d	t								
0	1	0	1	**5**			%	5	E	U	e	u								
0	1	1	0	**6**			&	6	F	V	f	v								
0	1	1	1	**7**			’	7	G	W	g	w								
1	0	0	0	**8**			(	8	H	X	h	x								
1	0	0	1	**9**			)	9	I	Y	i	y								
1	0	1	0	**A**			*	:	J	Z	j	z								
1	0	1	1	**B**			+	;	K	[	k	{								
1	1	0	0	**C**			,	<	L	\	l	¦								
1	1	0	1	**D**			-	=	M	]	m	}								
1	1	1	0	**E**			.	>	N	^	n	~								
1	1	1	1	**F**			/	?	O	_	o	DEL								

CODE93 can be specified within{00H~7FH}

9.9 Barcode

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

CODE128 Barcode Specification

ESC+BG

HEX Code	ESC	BG	Parameter
	<1B>16	<42>16<47>16	aabbbn~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify CODE128 barcode

[Format]

<BG>aabbbn~n

● Parameter

a	{Thin Bar Width}	=	valid range	:	01~12 (dot)
b	{Barcode Height}	=	valid range	:	001~999 (dot)
n	{Print Data}	=	barcode data(refer to CODE128 code table)		

[Coding Example] Thin Bar Width:02, Barcode Height:120, Print Data:ABCD123456(START CODE A)

<A>
<V>100<H>200**<BG>03120>GABCD123456**
<Q>2
<Z>

[Supplementary Explanation]

1.Specify “START CODE” with specification of type (A, B, C) at the beginning of print data.
(1)START CODE A = {>G}
(2)START CODE B = {>H}
(3)START CODE C = {>I}

2.C/D is created automatically.

3. (1) When START CODE C of CODE128 is used, specify the print data with even number digits.
(2) When print data is at odd number digits by START CODE C, specify START CODE A or B, after print data the 1st character is changed, set the rest of the data at even number digit with code set character C.
e.g. 1) 15 digits number{123456789012345} : <B>1<C>23456789012345
e.g. 2) numeric 9 digits / alphanumeric 6 digits{123456789ABC123} : <C>12345678<B>9ABC123
(3) When odd number digit is specified by START CODE C, be aware of the printing after “0” is refilled at the end of the data.
(4) When START CODE is omitted, print it with START CODE B.

CODE128 Code Table

Value	Code A	Code B	Code C
0	SP	SP	00
1	!	!	01
2	”	”	02
3	#	#	03
4	$	$	04
5	%	%	05
6	&	&	06
7	’	’	07
8	(	(	08
9	)	)	09
10	*	*	10
11	+	+	11
12	,	,	12
13	-	-	13
14	.	.	14
15	/	/	15
16	0	0	16
17	1	1	17
18	2	2	18
19	3	3	19
20	4	4	20
21	5	5	21
22	6	6	22
23	7	7	23
24	8	8	24
25	9	9	25
26	:	:	26
27	;	;	27
28	<	<	28
29	=	=	29
30	>(NOTE 4)	>(NOTE 4)	30
31	?	?	31
32	@	@	32
33	A	A	33
34	B	B	34
35	C	C	35
36	D	D	36
37	E	E	37
38	F	F	38
39	G	G	39
40	H	H	40
41	I	I	41
42	J	J	42
43	K	K	43
44	L	L	44
45	M	M	45
46	N	N	46
47	O	O	47
48	P	P	48

Value	Code A	Code B	Code C
49	Q	Q	49
50	R	R	50
51	S	S	51
52	T	T	52
53	U	U	53
54	V	V	54
55	W	W	55
56	X	X	56
57	Y	Y	57
58	Z	Z	58
59	[	[	59
60	＼	＼	60
61	]	]	61
62	^	^	62
63	_	_	63
64	NUL >SP	‘ >SP	64
65	SOH >!	a >!	65
66	STX >”	b >”	66
67	ETX >#	c >#	67
68	EOT >$	d >$	68
69	ENQ >%	e >%	69
70	ACK >&	f >&	70
71	BEL >’	g >’	71
72	BS >(	h >(	72
73	HT >)	i >)	73
74	LF >*	j >*	74
75	VT >+	k >+	75
76	FF >,	l >,	76
77	CR >-	m >-	77
78	SO >.	n >.	78
79	SI >/	o >/	79
80	DLE >0	p >0	80
81	DC1 >1	q >1	81
82	DC2 >2	r >2	82
83	DC3 >3	s >3	83
84	DC4 >4	t >4	84
85	NAK >5	u >5	85
86	SYN >□	v >6	86
87	ETB >7	w >7	87
88	CAN >8	x >8	88
89	EM >9	y >9	89
90	SUB >:	z >:	90
91	ESC >;	{ >;	91
92	FS ><	| ><	92
93	GS >=	} >=	93
94	RS >>	~ >>	94
95	US >?	DEL >?	95
96	FNC3 >@	FNC3 >@	96
97	FNC2 >A	FNC2 >A	97

Value	Code A	Code B	Code C
98	SHIFT >B	SHIFT >B	98
99	Code-C >C	Code-C >C	99
100	Code-B >D	FNC4 >D	Code-B >D
101	FNC4 >E	Code-A >E	Code-A >E
102	FNC1 >F	FNC1 >F	FNC1 >F
103	START CODE A >G		
104	B >H		
105	C >I		

(NOTE)

1.START CODE must to be sent.
2.STOP CODE is added automatically in the printer.
3.Code above Value 64 at Code A, Code B, specify 2 characters code added with ">".
4.The specification code of ">" is indicated with ">J".

9.10 Barcode

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Bookland Specification

ESC+BF

HEX Code	ESC	BF	Parameter
	<1B>16	<42>16<46>16	aabbn~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify Bookland Barcode

[Format]
<BF>aabbn~n
● Parameter

a	{Thin Bar Width}	=	valid range	:	01~03 (dot)
b	{Barcode Height}	=	valid range	:	001~999 (dot)
n	{Print Data}	=	barcode data(refer to Bookland code table)		

[Coding Example]
<A>
<V>725<H>325<BD>3031500+927721123
<V>760<H>640**<BF>0313021826**
<Q>2
<Z>

[Supplementary Explanation]
1.As the print data, only numbers can be specified.
2.The data input digit numbers are from 2~5 digits.

Bookland Code Table

					S								S							
				b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
				b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
b4	**b3**	**b2**	**b1**		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**F**
0	0	0	0	**0**				0												
0	0	0	1	**1**				1												
0	0	1	0	**2**				2												
0	0	1	1	**3**				3												
0	1	0	0	**4**				4												
0	1	0	1	**5**				5												
0	1	1	0	**6**				6												
0	1	1	1	**7**				7												
1	0	0	0	**8**				8												
1	0	0	1	**9**				9												
1	0	1	0	**A**																
1	0	1	1	**B**																
1	1	0	0	**C**																
1	1	0	1	**D**																
1	1	1	0	**E**																
1	1	1	1	**F**																

9.11 Barcode

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Postnet Specification

ESC+BP

HEX Code	ESC	BP	Parameter
	<1B>16	<42>16<50>16	n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify Postnet Barcode

[Format]
<BP>n~n
● Parameter
n = Print Data(refer to Postnet Code Table)
*Do not specify digit numbers not in the following
· 5 digits specification(Postnet-32 format)
· 6 digits specification(Postnet-37 format)
· 9 digits specification(Postnet-52 format)
·11 digits specification(Postnet-62 Delivery Point format)

[Coding Example] Postal Code 11 digits specification:01234567890
<A>
<V>100<H>200**<BP>01234567890**
<Q>2
<Z>

[Supplementary Explanation]
1.It is invalid when print data is not specified with 5 digits, 6 digits, 9 digits and 11 digits.
2.As the print data, only numbers can be specified.

Postnet Code Table

					S			I					S				O			
				b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
				b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
b4	**b3**	**b2**	**b1**		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**F**
0	0	0	0	**0**				0												
0	0	0	1	**1**				1												
0	0	1	0	**2**				2												
0	0	1	1	**3**				3												
0	1	0	0	**4**				4												
0	1	0	1	**5**				5												
0	1	1	0	**6**				6												
0	1	1	1	**7**				7												
1	0	0	0	**8**				8												
1	0	0	1	**9**				9												
1	0	1	0	**A**																
1	0	1	1	**B**																
1	1	0	0	**C**																
1	1	0	1	**D**																
1	1	1	0	**E**																
1	1	1	1	**F**																

10. 2-D Code Command

10.1 2-D Code

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

QR Code	ESC+BQ

HEX Code	ESC	BQ	Parameter
	<1B>16	<42>16<51>16	Manual Setting abcc,(ddeeff,)g(hhhh)n Auto Setting abcc,(ddeeff,)n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify 2-D Code QR Code

[Format]

{Manual Setting } <BQ>abcc,(ddeeff,)g(hhhh)n

{Auto Setting} <BQ>abcc,(ddeeff,)n

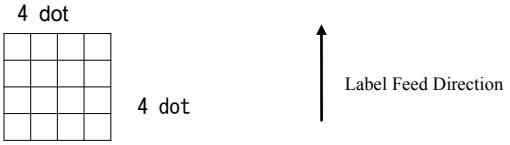
● Parameter

a {Error Correction Level}= 1 : 7% High Density Level(L)
2 : 15% Standard Level(M)
3 : 30% Super High Trust Level(H)
4 : 25% Hight Trust Level(Q)

b {Concatenation Mode} = 0 : Normal Mode
1 : Concatenation Mode

c {Single Side Cell Size} = valid range: 01~32 (dot)

e.g.) cc=04



d {Split Number of Concatenation Mode} = valid range : 01~16

e {Sequential Number Split with the Concatenation Mode} = valid range : 01~16

f {Concatenation Mode Parity Data} = valid range : 00~FF

g {Character Mode} = 1 : Numeric Mode
2 : Alphanumeric Mode
3 : Binary Mode
4 : Kanji Mode

h {Data Number} = valid range : 0001~7366

n {Print Data} = Data

[Coding Example] Error Correction Level:30%, Concatenation Mode:Normal, Single Side Cell Size:10

<A>
<V>100<H>200**<BQ>3010,112345**
<Q>2
<Z>

[Supplementary Explanation]

1.The parity data is the data specified by the hex character which is calculated from all print data of the split 2D code (QR Code) by XOR.

2.It is not necessary to set data number parameter when character mode is not at binary mode.

QR Data Size Table (for Model 1)

Version	Error Correction	Numeric	Alphanumeric	Kanji	Binary
1	L	40	24	10	17
	M	33	20	8	14
21x21	Q	25	15	6	11
	H	16	10	4	7
2	L	81	49	20	34
	M	66	40	17	28
25x25	Q	52	31	13	22
	H	33	20	8	14
3	L	131	79	33	55
	M	100	60	25	42
29x29	Q	81	49	20	34
	H	52	31	13	22
4	L	186	113	48	78
	M	138	84	35	58
33x33	Q	114	69	29	48
	H	76	46	19	32
5	L	253	154	65	106
	M	191	116	49	80
37x37	Q	157	95	40	66
	H	105	63	27	44
6	L	321	194	82	134
	M	249	151	64	104
41x41	Q	201	122	51	84
	H	133	81	34	56
7	L	402	244	103	168
	M	311	188	80	130
45x45	Q	253	154	65	106
	H	167	101	43	70
8	L	493	299	126	206
	M	378	229	97	158
49x49	Q	301	183	77	126
	H	203	123	52	85
9	L	585	354	150	244
	M	441	267	113	184
53x53	Q	369	223	94	154
	H	239	145	61	100
10	L	690	418	177	287
	M	526	319	135	219
57x57	Q	433	262	111	180
	H	291	176	74	121

Version	Error Correction	Numeric	Alphanumeric	Kanji	Binary
11	L	800	485	205	333
	M	608	368	156	253
61x61	Q	493	299	126	205
	H	342	207	87	142
12	L	915	555	234	381
	M	694	421	178	289
65x65	Q	579	351	148	241
	H	390	236	100	162
13	L	1030	624	264	429
	M	790	479	202	329
69x69	Q	656	398	168	273
	H	454	275	116	189
14	L	1167	707	299	486
	M	877	531	225	365
73x73	Q	738	447	189	307
	H	498	302	127	207

QR Code (Numeric Mode) Code Table

					S			I					S			O			
				b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
				b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
b4	**b3**	**b2**	**b1**		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**F**
0	0	0	0	**0**				0												
0	0	0	1	**1**				1												
0	0	1	0	**2**				2												
0	0	1	1	**3**				3												
0	1	0	0	**4**				4												
0	1	0	1	**5**				5												
0	1	1	0	**6**				6												
0	1	1	1	**7**				7												
1	0	0	0	**8**				8												
1	0	0	1	**9**				9												
1	0	1	0	**A**																
1	0	1	1	**B**																
1	1	0	0	**C**																
1	1	0	1	**D**																
1	1	1	0	**E**																
1	1	1	1	**F**																

QR Code (Alphanumeric Mode) Code Table

					S					I			S				O			
				b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
				b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
b4	**b3**	**b2**	**b1**		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**F**
0	0	0	0	**0**			SP	0		P										
0	0	0	1	**1**				1	A	Q										
0	0	1	0	**2**				2	B	R										
0	0	1	1	**3**				3	C	S										
0	1	0	0	**4**			$	4	D	T										
0	1	0	1	**5**			%	5	E	U										
0	1	1	0	**6**				6	F	V										
0	1	1	1	**7**				7	G	W										
1	0	0	0	**8**				8	H	X										
1	0	0	1	**9**				9	I	Y										
1	0	1	0	**A**			*	:	J	Z										
1	0	1	1	**B**			+		K											
1	1	0	0	**C**					L											
1	1	0	1	**D**			-		M											
1	1	1	0	**E**			.		N											
1	1	1	1	**F**			/		O											

QR Code (Binary Mode) Code Table

					S								S				O			
				b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
				b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
b4	**b3**	**b2**	**b1**		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**F**
0	0	0	0	**0**			SP	0	@	P	`	p								
0	0	0	1	**1**			!	1	A	Q	a	q								
0	0	1	0	**2**			”	2	B	R	b	r								
0	0	1	1	**3**			#	3	C	S	c	s								
0	1	0	0	**4**			$	4	D	T	d	t								
0	1	0	1	**5**			%	5	E	U	e	u								
0	1	1	0	**6**			&	6	F	V	f	v								
0	1	1	1	**7**			’	7	G	W	g	w								
1	0	0	0	**8**			(	8	H	X	h	x								
1	0	0	1	**9**			)	9	I	Y	i	y								
1	0	1	0	**A**			*	:	J	Z	j	z								
1	0	1	1	**B**			+	;	K	[	k	{								
1	1	0	0	**C**			,	<	L	\	l	¦								
1	1	0	1	**D**			-	=	M	]	m	}								
1	1	1	0	**E**			.	>	N	^	n	-								
1	1	1	1	**F**			/	?	O	_	o	DEL								

QR Code (binary mode) can be specified within{00H~7FH, A0H~DFH}

QR Code (Kanji Mode) Code Table

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Symbol	813F		SP	,	。	,	.	·	:	;	?	!	゛	°	´	`	¨
	814F	^	￣	＿	ヽ	ヾ	ゝ	ゞ	〃	仝	々	〆	〇	ー	-	-	/
	815F	＼	~	∥	｜	…	‥	‘	‘	“	”	(	)	〔	〕	[	]
	816F	{	}	〈	〉	《	》	{	}	{	}	[	]	+	-	±	X
	8180	÷	=	≠	<	>	≦	≧	∞	∴	♂	♀	°	′	″	℃	¥
	8190	$	¢	£	%	#	&	*	@	§	☆	★	○	●	◎	◇	
	819E		◆	□	■	△	▲	▽	▼	*	〒	→	←	↑	↓	=	
Alphanumeric	824F	0	1	2	3	4	5	6	7	8	9						
	825F		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	826F	P	Q	R	S	T	U	V	W	X	Y	Z					
	8280		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
	8290	p	q	r	s	t	u	v	w	x	y	z					
Hiragana	829E		ぁ	あ	ぃ	い	ぅ	う	ぇ	え	ぉ	お	か	が	き	ぎ	く
	82AE	ぐ	け	げ	こ	ご	さ	ざ	し	じ	す	ず	せ	ぜ	そ	ぞ	た
	82BE	だ	ち	ぢ	っ	つ	づ	て	で	と	ど	な	に	ぬ	ね	の	は
	82CE	ば	ぱ	ひ	び	ぴ	ふ	ぶ	ぷ	へ	べ	ぺ	ほ	ぼ	ぽ	ま	み
	82DE	む	め	も	ゃ	や	ゅ	ゆ	ょ	よ	ら	り	る	れ	ろ	ゎ	わ
	82EE	ゐ	ゑ	を	ん												
Katakana	833F		ァ	ア	ィ	イ	ゥ	ウ	ェ	エ	ォ	オ	カ	ガ	キ	ギ	ク
	834F	グ	ケ	ゲ	コ	ゴ	サ	ザ	シ	ジ	ス	ズ	セ	ゼ	ソ	ゾ	タ
	835F	ダ	チ	ヂ	ッ	ツ	ヅ	テ	デ	ト	ド	ナ	ニ	ヌ	ネ	ノ	ハ
	836F	バ	パ	ヒ	ビ	ピ	フ	ブ	プ	ヘ	ベ	ペ	ホ	ボ	ポ	マ	ミ
	8380	ム	メ	モ	ャ	ヤ	ュ	ユ	ョ	ヨ	ラ	リ	ル	レ	ロ	ヮ	ワ
	8390	ヰ	ヱ	ヲ	ン	ヴ	ヵ	ヶ									
Greece	839E		Α	Β	Γ	Δ	Ε	Ζ	Η	Θ	Ι	Κ	Λ	Μ	Ν	Ξ	Ο
	83AE	Π	Ρ	Σ	Τ	Υ	Φ	Χ	Ψ	Ω							
	83BE		α	β	γ	δ	ε	ζ	η	θ	ι	κ	λ	μ	ν	ξ	ο
	83CE	π	ρ	σ	τ	υ	φ	χ	ψ	ω							
Russian	843F		А	Б	В	Г	Д	Е	Ё	Ж	З	И	Й	К	Л	М	Н
	844F	О	П	Р	С	Т	У	Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э
	845F	Ю	Я														
	846F		а	б	в	г	д	е	ё	ж	з	и	й	к	л	м	н
	8480	о	п	р	с	т	у	ф	х	ц	ч	ш	щ	ъ	ы	ь	э
	8490	ю	я														

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
ア	889E		亜	唖	娃	阿	哀	愛	挨	姶	逢	葵	茜	穐	悪	握	渥
	88AE	旭	葦	芦	鯵	梓	圧	斡	扱	宛	姐	虻	飴	絢	綾	鮎	或
	88BE	粟	袷	安	庵	按	暗	案	闇	鞍	杏						
イ	88BE											以	伊	位	依	偉	囲
	88CE	夷	委	威	尉	惟	意	慰	易	椅	為	畏	異	移	維	緯	胃
	88DE	萎	衣	謂	違	遺	医	井	亥	域	育	郁	磯	一	壱	溢	逸
	88EE	稲	茨	芋	鰯	允	印	咽	員	因	姻	引	飲	淫	胤	蔭	
	893F		院	陰	隠	韻	吋										
ウ	893F							右	宇	烏	羽	迂	雨	卯	鵜	窺	丑
	894F	碓	臼	渦	嘘	唄	欝	蔚	鰻	姥	厩	浦	瓜	閏	噂	云	運
	895F	雲															
エ	895F		荏	餌	叡	営	嬰	影	映	曳	栄	永	泳	洩	瑛	盈	穎
	896F	頴	英	衛	詠	鋭	液	疫	益	駅	悦	謁	越	閲	榎	厭	円
	8980	園	堰	奄	宴	延	怨	掩	援	沿	演	炎	焔	煙	燕	猿	縁
	8990	艶	苑	薗	遠	鉛	鴛	塩									
オ	8990								於	汚	甥	凹	央	奥	往	応	
	899E		押	旺	横	欧	殴	王	翁	襖	鴬	鴎	黄	岡	沖	荻	億
	89AE	屋	憶	臆	桶	牡	乙	俺	卸	恩	温	穏	音				
カ	89AE													下	化	仮	何
	89BE	伽	価	佳	加	可	嘉	夏	嫁	家	寡	科	暇	果	架	歌	河
	89CE	火	珂	禍	禾	稼	箇	花	苛	茄	荷	華	菓	蝦	課	嘩	貨
	89DE	迦	過	霞	蚊	俄	峨	我	牙	画	臥	芽	蛾	賀	雅	餓	駕
	89EE	介	会	解	回	塊	壊	廻	快	怪	悔	恢	懐	戒	拐	改	
	8A3F		魁	晦	械	海	灰	界	皆	絵	芥	蟹	開	階	貝	凱	劾
	8A4F	外	咳	害	崖	慨	概	涯	碍	蓋	街	該	鎧	骸	浬	馨	蛙
	8A5F	垣	柿	蛎	鈎	劃	嚇	各	廓	拡	撹	格	核	殻	獲	確	穫
	8A6F	覚	角	赫	較	郭	閣	隔	革	学	岳	楽	額	顎	掛	笠	樫
	8A80	橿	梶	鰍	潟	割	喝	恰	括	活	渇	滑	葛	褐	轄	且	鰹
	8A90	叶	椛	樺	鞄	株	兜	竃	蒲	釜	鎌	噛	鴨	栢	茅	萱	
	8A9E		粥	刈	苅	瓦	乾	侃	冠	寒	刊	勘	勧	巻	喚	堪	姦
	8AAE	完	官	寛	干	幹	患	感	慣	憾	換	敢	柑	桓	棺	款	歓
	8ABE	汗	漢	澗	潅	環	甘	監	看	竿	管	簡	緩	缶	翰	肝	艦
	8ACE	莞	観	諌	貫	還	鑑	間	閑	関	陥	韓	館	舘	丸	含	岸
	8ADE	巌	玩	癌	眼	岩	翫	贋	雁	頑	顔	願					

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
キ	8ADE												企	伎	危	喜	器
	8AEE	基	奇	嬉	寄	岐	希	幾	忌	揮	机	旗	既	期	棋	棄	
	8B3F		機	帰	毅	気	汽	畿	祈	季	稀	紀	徽	規	記	貴	起
	8B4F	軌	輝	飢	騎	鬼	亀	偽	儀	妓	宜	戯	技	擬	欺	犠	疑
	8B5F	祇	義	蟻	誼	議	掬	菊	鞠	吉	吃	喫	桔	橘	詰	砧	杵
	8B6F	黍	却	客	脚	虐	逆	丘	久	仇	休	及	吸	宮	弓	急	救
	8B80	朽	求	汲	泣	灸	球	究	窮	笈	級	糾	給	旧	牛	去	居
	8B90	巨	拒	拠	挙	渠	虚	許	距	鋸	漁	禦	魚	亨	享	京	
	8B9E		供	侠	僑	兇	競	共	凶	協	匡	卿	叫	喬	境	峡	強
	8BAE	彊	怯	恐	恭	挟	教	橋	況	狂	狭	矯	胸	脅	興	蕎	郷
	8BBE	鏡	響	饗	驚	仰	凝	尭	暁	業	局	曲	極	玉	桐	粁	僅
	8BCE	勤	均	巾	錦	斤	欣	欽	琴	禁	禽	筋	緊	芹	菌	衿	襟
	8BDE	謹	近	金	吟	銀											
ク	8BDE						九	倶	句	区	狗	玖	矩	苦	躯	駆	駈
	8BEE	駒	具	愚	虞	喰	空	偶	寓	遇	隅	串	櫛	釧	屑	屈	
	8C3F		掘	窟	沓	靴	轡	窪	熊	隈	粂	栗	繰	桑	鍬	勲	君
	8C4F	薫	訓	群	軍	郡											
ケ	8C4F						卦	袈	祁	係	傾	刑	兄	啓	圭	珪	型
	8C5F	契	形	径	恵	慶	慧	憩	掲	携	敬	景	桂	渓	畦	稽	系
	8C6F	経	継	繋	罫	茎	荊	蛍	計	詣	警	軽	頚	鶏	芸	迎	鯨
	8C80	劇	戟	撃	激	隙	桁	傑	欠	決	潔	穴	結	血	訣	月	件
	8C90	倹	倦	健	兼	券	剣	喧	圏	堅	嫌	建	憲	懸	拳	捲	
	8C9E		検	権	牽	犬	献	研	硯	絹	県	肩	見	謙	賢	軒	遣
	8CAE	鍵	険	顕	験	鹸	元	原	厳	幻	弦	減	源	玄	現	絃	舷
	8CBE	言	諺	限													
コ	8CBE				乎	個	古	呼	固	姑	孤	己	庫	弧	戸	故	枯
	8CCE	湖	狐	糊	袴	股	胡	菰	虎	誇	跨	鈷	雇	顧	鼓	五	互
	8CDE	伍	午	呉	吾	娯	後	御	悟	梧	檎	瑚	碁	語	誤	護	醐
	8DEE	乞	鯉	交	佼	侯	候	倖	光	公	功	効	勾	厚	口	向	
	8D3F		后	喉	坑	垢	好	孔	孝	宏	工	巧	巷	幸	広	庚	康
	8D4F	弘	恒	慌	抗	拘	控	攻	昂	晃	更	杭	校	梗	構	江	洪
	8D5F	浩	港	溝	甲	皇	硬	稿	糠	紅	紘	絞	綱	耕	考	肯	肱
	8D6F	腔	膏	航	荒	行	衡	講	貢	購	郊	酵	鉱	砿	鋼	閤	降
	8D80	項	香	高	鴻	剛	劫	号	合	壕	拷	濠	豪	轟	麹	克	刻

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
コ	8D90	告	国	穀	酷	鵠	黒	獄	漉	腰	甑	忽	惚	骨	狛	込	
	8D9E		此	頃	今	困	坤	墾	婚	恨	懇	昏	昆	根	梱	混	痕
	8DAE	紺	艮	魂													
サ	8DAE				些	佐	叉	唆	嵯	左	差	査	沙	瑳	砂	詐	鎖
	8DBE	裟	坐	座	挫	債	催	再	最	哉	塞	妻	宰	彩	才	採	栽
	8DCE	歳	済	災	采	犀	砕	砦	祭	斎	細	菜	裁	載	際	剤	在
	8DDE	材	罪	財	冴	坂	阪	堺	榊	肴	咲	崎	埼	碕	鷺	作	削
	8DEE	咋	搾	昨	朔	柵	窄	策	索	錯	桜	鮭	笹	匙	冊	刷	
	8E3F		察	拶	撮	擦	札	殺	薩	雑	皐	鯖	捌	錆	鮫	皿	晒
	8E4F	三	傘	参	山	惨	撒	散	桟	燦	珊	産	算	纂	蚕	讃	賛
	8E5F	酸	餐	斬	暫	残											
シ	8E5F						仕	仔	伺	使	刺	司	史	嗣	四	士	始
	8E6F	姉	姿	子	屍	市	師	志	思	指	支	孜	斯	施	旨	枝	止
	8E80	死	氏	獅	祉	私	糸	紙	紫	肢	脂	至	視	詞	詩	試	誌
	8E90	諮	資	賜	雌	飼	歯	事	似	侍	児	字	寺	慈	持	時	
	8E9E		次	滋	治	爾	璽	痔	磁	示	而	耳	自	蒔	辞	汐	鹿
	8EAE	式	識	鴫	竺	軸	宍	雫	七	叱	執	失	嫉	室	悉	湿	漆
	8EBE	疾	質	実	蔀	篠	偲	柴	芝	屡	蕊	縞	舎	写	射	捨	赦
	8ECE	斜	煮	社	紗	者	謝	車	遮	蛇	邪	借	勺	尺	杓	灼	爵
	8EDE	酌	釈	錫	若	寂	弱	惹	主	取	守	手	朱	殊	狩	珠	種
	8EEE	腫	趣	酒	首	儒	受	呪	寿	授	樹	綬	需	囚	収	周	
	8F3F		宗	就	州	修	愁	拾	洲	秀	秋	終	繍	習	臭	舟	蒐
	8F4F	衆	襲	讐	蹴	輯	週	酋	酬	集	醜	什	住	充	十	従	戎
	8F5F	柔	汁	渋	獣	縦	重	銃	叔	夙	宿	淑	祝	縮	粛	塾	熟
	8F6F	出	術	述	俊	峻	春	瞬	竣	舜	駿	准	循	旬	楯	殉	淳
	8F80	準	潤	盾	純	巡	遵	醇	順	処	初	所	暑	曙	渚	庶	緒
	8F90	署	書	薯	藷	諸	助	叙	女	序	徐	恕	鋤	除	傷	償	
	8F9E		勝	匠	升	召	哨	商	唱	嘗	奨	妾	娼	宵	将	小	少
	8FAE	尚	庄	床	廠	彰	承	抄	招	掌	捷	昇	昌	昭	晶	松	梢
	8FBE	樟	樵	沼	消	渉	湘	焼	焦	照	症	省	硝	礁	祥	称	章
	8FCE	笑	粧	紹	肖	菖	蒋	蕉	衝	裳	訟	証	詔	詳	象	賞	醤
	8FDE	鉦	鍾	鐘	障	鞘	上	丈	丞	乗	冗	剰	城	場	壌	嬢	常
	8FEE	情	擾	条	杖	浄	状	畳	穣	蒸	譲	醸	錠	嘱	埴	飾	
	903F		拭	植	殖	燭	織	職	色	触	食	蝕	辱	尻	伸	信	侵

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
シ	904F	唇	娠	寝	審	心	慎	振	新	晋	森	榛	浸	深	申	疹	真
	905F	神	秦	紳	臣	芯	薪	親	診	身	辛	進	針	震	人	仁	刃
	906F	塵	壬	尋	甚	尽	腎	訊	迅	陣	靭						
ス	906F											笥	諏	須	酢	図	厨
	9080	逗	吹	垂	帥	推	水	炊	睡	粋	翠	衰	遂	酔	錐	錘	随
	9090	瑞	髄	崇	嵩	数	枢	趨	雛	据	杉	椙	菅	頗	雀	裾	
	909E		澄	摺	寸												
セ	909E					世	瀬	畝	是	凄	制	勢	姓	征	性	成	政
	90AE	整	星	晴	棲	栖	正	清	牲	生	盛	精	聖	声	製	西	誠
	90BE	誓	請	逝	醒	青	静	斉	税	脆	隻	席	惜	戚	斥	昔	析
	90CE	石	積	籍	績	脊	責	赤	跡	蹟	碩	切	拙	接	摂	折	設
	90DE	窃	節	説	雪	絶	舌	蝉	仙	先	千	占	宣	専	尖	川	戦
	90EE	扇	撰	栓	栴	泉	浅	洗	染	潜	煎	煽	旋	穿	箭	線	
	913F		繊	羨	腺	舛	船	薦	詮	賤	践	選	遷	銭	銑	閃	鮮
	914F	前	善	漸	然	全	禅	繕	膳	糎							
ソ	914F										噌	塑	岨	措	曾	曽	楚
	915F	狙	疏	疎	礎	祖	租	粗	素	組	蘇	訴	阻	遡	鼠	僧	創
	916F	双	叢	倉	喪	壮	奏	爽	宋	層	匝	惣	想	捜	掃	挿	掻
	9180	操	早	曹	巣	槍	槽	漕	燥	争	痩	相	窓	糟	総	綜	聡
	9190	草	荘	葬	蒼	藻	装	走	送	遭	鎗	霜	騒	像	増	憎	
	919E		臓	蔵	贈	造	促	側	則	即	息	捉	束	測	足	速	俗
	91AE	属	賊	族	続	卒	袖	其	揃	存	孫	尊	損	村	遜		
タ	91AE															他	多
	91BE	太	汰	詑	唾	堕	妥	惰	打	柁	舵	楕	陀	駄	騨	体	堆
	91CE	対	耐	岱	帯	待	怠	態	戴	替	泰	滞	胎	腿	苔	袋	貸
	91DE	退	逮	隊	黛	鯛	代	台	大	第	醍	題	鷹	滝	瀧	卓	啄
	91EE	宅	托	択	拓	沢	濯	琢	託	鐸	濁	諾	茸	凧	蛸	只	
	923F		叩	但	達	辰	奪	脱	巽	竪	辿	棚	谷	狸	鱈	樽	誰
	924F	丹	単	嘆	坦	担	探	旦	歎	淡	湛	炭	短	端	箪	綻	耽
	925F	胆	蛋	誕	鍛	団	壇	弾	断	暖	檀	段	男	談			
チ	925F														値	知	地
	926F	弛	恥	智	池	痴	稚	置	致	蜘	遅	馳	築	畜	竹	筑	蓄
	9280	逐	秩	窒	茶	嫡	着	中	仲	宙	忠	抽	昼	柱	注	虫	衷
	9290	註	酎	鋳	駐	樗	瀦	猪	苧	著	貯	丁	兆	凋	喋	寵	

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
チ	929E		帖	帳	庁	弔	張	彫	徴	懲	挑	暢	朝	潮	牒	町	眺
	92AE	聴	脹	腸	蝶	調	諜	超	跳	銚	長	頂	鳥	勅	捗	直	朕
	92BE	沈	珍	賃	鎮	陳											
ツ	92BE						津	墜	椎	槌	追	鎚	痛	通	塚	栂	掴
	92CE	槻	佃	漬	柘	辻	蔦	綴	鍔	椿	潰	坪	壺	嬬	紬	爪	吊
	92DE	釣	鶴														
テ	92DE			亭	低	停	偵	剃	貞	呈	堤	定	帝	底	庭	廷	弟
	92EE	悌	抵	挺	提	梯	汀	碇	禎	程	締	艇	訂	諦	蹄	逓	
	933F		邸	鄭	釘	鼎	泥	摘	擢	敵	滴	的	笛	適	鏑	溺	哲
	934F	徹	撤	轍	迭	鉄	典	填	天	展	店	添	纏	甜	貼	転	顛
	935F	点	伝	殿	澱	田	電										
ト	935F							兎	吐	堵	塗	妬	屠	徒	斗	杜	渡
	936F	登	菟	賭	途	都	鍍	砥	砺	努	度	土	奴	怒	倒	党	冬
	9380	凍	刀	唐	塔	塘	套	宕	島	嶋	悼	投	搭	東	桃	梼	棟
	9390	盗	淘	湯	涛	灯	燈	当	痘	祷	等	答	筒	糖	統	到	
	939E		董	蕩	藤	討	謄	豆	踏	逃	透	鐙	陶	頭	騰	闘	働
	93AE	動	同	堂	導	憧	撞	洞	瞳	童	胴	萄	道	銅	峠	鴇	匿
	93BE	得	徳	涜	特	督	禿	篤	毒	独	読	栃	橡	凸	突	椴	届
	93CE	鳶	苫	寅	酉	瀞	噸	屯	惇	敦	沌	豚	遁	頓	呑	曇	鈍
ナ	93DE	奈	那	内	乍	凪	薙	謎	灘	捺	鍋	楢	馴	縄	畷	南	楠
	93EE	軟	難	汝													
ニ	93EE				二	尼	弐	迩	匂	賑	肉	虹	廿	日	乳	入	
	943F		如	尿	韮	任	妊	忍	認								
ヌ	943F									濡							
ネ	943F										禰	祢	寧	葱	猫	熱	年
	944F	念	捻	撚	燃	粘											
ノ	944F						乃	廼	之	埜	嚢	悩	濃	納	能	脳	膿
	945F	農	覗	蚤													
ハ	945F				巴	把	播	覇	杷	波	派	琶	破	婆	罵	芭	馬
	946F	俳	廃	拝	排	敗	杯	盃	牌	背	肺	輩	配	倍	培	媒	梅
	9480	楳	煤	狽	買	売	賠	陪	這	蝿	秤	矧	萩	伯	剥	博	拍
	9490	柏	泊	白	箔	粕	舶	薄	迫	曝	漠	爆	縛	莫	駁	麦	
	949E		函	箱	硲	箸	肇	筈	櫨	幡	肌	畑	畠	八	鉢	溌	発
	94AE	醗	髪	伐	罰	抜	筏	閥	鳩	噺	塙	蛤	隼	伴	判	半	反

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
ハ	94BE	叛	帆	搬	斑	板	氾	汎	版	犯	班	畔	繁	般	藩	販	範
	94CE	釆	煩	頒	飯	挽	晩	番	盤	磐	蕃	蛮					
ヒ	94CE												匪	卑	否	妃	庇
	94DE	彼	悲	扉	批	披	斐	比	泌	疲	皮	碑	秘	緋	罷	肥	被
	94EE	誹	費	避	非	飛	樋	簸	備	尾	微	枇	毘	琵	眉	美	
	953F		鼻	柊	稗	匹	疋	髭	彦	膝	菱	肘	弼	必	畢	筆	逼
	954F	桧	姫	媛	紐	百	謬	俵	彪	標	氷	漂	瓢	票	表	評	豹
	955F	廟	描	病	秒	苗	錨	鋲	蒜	蛭	鰭	品	彬	斌	浜	瀕	貧
	956F	賓	頻	敏	瓶												
フ	956F					不	付	埠	夫	婦	富	冨	布	府	怖	扶	敷
	9580	斧	普	浮	父	符	腐	膚	芙	譜	負	賦	赴	阜	附	侮	撫
	9590	武	舞	葡	蕪	部	封	楓	風	葺	蕗	伏	副	復	幅	服	
	959E		福	腹	複	覆	淵	弗	払	沸	仏	物	鮒	分	吻	噴	墳
	95AE	憤	扮	焚	奮	粉	糞	紛	雰	文	聞						
ヘ	95AE											丙	併	兵	塀	幣	平
	95BE	弊	柄	並	蔽	閉	陛	米	頁	僻	壁	癖	碧	別	瞥	蔑	箆
	95CE	偏	変	片	篇	編	辺	返	遍	便	勉	娩	弁	鞭			
ホ	95CE														保	舗	鋪
	95DE	圃	捕	歩	甫	補	輔	穂	募	墓	慕	戊	暮	母	簿	菩	倣
	95EE	俸	包	呆	報	奉	宝	峰	峯	崩	庖	抱	捧	放	方	朋	
	963F		法	泡	烹	砲	縫	胞	芳	萌	蓬	蜂	褒	訪	豊	邦	鋒
	964F	飽	鳳	鵬	乏	亡	傍	剖	坊	妨	帽	忘	忙	房	暴	望	某
	965F	棒	冒	紡	肪	膨	謀	貌	貿	鉾	防	吠	頬	北	僕	卜	墨
	966F	撲	朴	牧	睦	穆	釦	勃	没	殆	堀	幌	奔	本	翻	凡	盆
マ	9680	摩	磨	魔	麻	埋	妹	昧	枚	毎	哩	槙	幕	膜	枕	鮪	柾
	9690	鱒	桝	亦	俣	又	抹	末	沫	迄	侭	繭	麿	万	慢	満	
	969E		漫	蔓													
ミ	969E				味	未	魅	巳	箕	岬	密	蜜	湊	蓑	稔	脈	妙
	96AE	粍	民	眠													
ム	96AE				務	夢	無	牟	矛	霧	鵡	椋	婿	娘			
メ	96AE														冥	名	命
	96BE	明	盟	迷	銘	鳴	姪	牝	滅	免	棉	綿	緬	面	麺		
モ	96BE															摸	模
	96CE	茂	妄	孟	毛	猛	盲	網	耗	蒙	儲	木	黙	目	杢	勿	餅

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
モ	96DE	尤	戻	籾	貰	問	悶	紋	門	匁							
ヤ	96DE										也	冶	夜	爺	耶	野	弥
	96EE	矢	厄	役	約	薬	訳	躍	靖	柳	薮	鑓					
ユ	96EE												愉	愈	油	癒	
	973F		諭	輸	唯	佑	優	勇	友	宥	幽	悠	憂	揖	有	柚	湧
	974F	涌	猶	猷	由	祐	裕	誘	遊	邑	郵	雄	融	夕			
ヨ	974F														予	余	与
	975F	誉	輿	預	傭	幼	妖	容	庸	揚	揺	擁	曜	楊	様	洋	溶
	976F	熔	用	窯	羊	耀	葉	蓉	要	謡	踊	遥	陽	養	慾	抑	欲
	9780	沃	浴	翌	翼	淀											
ラ	9780						羅	螺	裸	来	莱	頼	雷	洛	絡	落	酪
	9790	乱	卵	嵐	欄	濫	藍	蘭	覧								
リ	9790									利	吏	履	李	梨	理	璃	
	979E		痢	裏	裡	里	離	陸	律	率	立	葎	掠	略	劉	流	溜
	97AE	琉	留	硫	粒	隆	竜	龍	侶	慮	旅	虜	了	亮	僚	両	凌
	97BE	寮	料	梁	涼	猟	療	瞭	稜	糧	良	諒	遼	量	陵	領	力
	97CE	緑	倫	厘	林	淋	燐	琳	臨	輪	隣	鱗	麟				
ル	97CE													瑠	塁	涙	累
	97DE	類															
レ	97DE		令	伶	例	冷	励	嶺	怜	玲	礼	苓	鈴	隷	零	霊	麗
	97EE	齢	暦	歴	列	劣	烈	裂	廉	恋	憐	漣	煉	簾	練	聯	
	983F		蓮	連	錬												
ロ	983F					呂	魯	櫓	炉	賂	路	露	労	婁	廊	弄	朗
	984F	楼	榔	浪	漏	牢	狼	篭	老	聾	蝋	郎	六	麓	禄	肋	録
	985F	論															
ワ	985F		倭	和	話	歪	賄	脇	惑	枠	鷲	亙	亘	鰐	詫	藁	蕨
	986F	椀	湾	碗	腕												

	Shift JIS	0 1 2 3	4 5 6 7	8 9 A B	C D E F
一	989E	弋 丐 丕			
丨	989E		个 丳		
丶	989E		丶 丼		
丿	989E			丿 乂 乖 乘	
乙	989E				亂
亅	989E				亅 豫 亊
	98AE	舒			
二	98AE	弍 于 亞	亟		
亠	98AE		亠 亢 亰	亳 亶	
人	98AE			从 仍	仄 仆 仂 仗
	98BE	仞 伃 仟 价	伉 佚 估 佛	佝 佗 佇 佶	侈 侏 侘 佻
	98CE	佩 佰 侑 佯	來 侖 儘 俔	俟 俎 俘 俛	俑 俚 俐 俤
	98DE	俥 倚 倨 倔	倪 倥 倅 伜	俶 倡 倩 倬	俾 俯 們 倆
	98EE	偃 假 會 偕	偐 偈 做 偖	偬 偸 傀 傚	傅 傴 傲
	993F	僉 僭 傳	僂 僖 僞 僥	僣 僣 僮 價	僵 儉 儁 儂
	994F	儖 儕 儔 儚	儡 儺 儷 儼	儻	
儿	994F			儿 兀 兒	兌 兔 兢 競
入	995F	兩 兪			
八	995F	兮 冀			
冂	995F		冂 冋 冊 冉	冏 冑 冓 冕	
冖	995F				冖 冤 冠 冢
	996F	冩 冪			
冫	996F	冫 决	冱 冲 冰 况	冽 凅 凉 凛	
几	996F				几 處 凩 凭
	9980	凰			
凵	9980	凵 函			
刀	9980	刃	刋 刔 刎 刧	刪 刮 刳 刹	剏 剄 剋 剌
	9990	剞 剔 剪 剴	剩 剳 剿 剽	劍 劒 劔 劔	劈 劑 辨
	999E	辦			
力	999E	劬 劭	劼 劵 勁 勍	勗 勞 勣 勦	飭 勠 勳 勵
	99AE	勸			
勹	99AE	勹 匆 匈	甸 匍 匐 匏		
匕	99AE			匕	
匚	99AE			匚 匣 匯	匱 匳

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
亡	99AE															亡	區
十	99BE	卆	卅	丗	卉	卍	準										
卜	99BE							卞									
卩	99BE								卩	卮	卯	卻	卷				
厂	99BE													厂	厖	厠	厦
	99CE	厥	厮	厰													
厶	99CE				厶	參	篡										
又	99CE							雙	叟	曼	燮						
口	99CE											叮	叨	叭	叺	吁	吽
	99DE	呀	听	吭	吼	吮	吶	吩	吝	呎	咏	呵	咎	呟	呱	呷	呰
	99EE	咒	呻	咀	呪	咄	咐	咆	哇	咢	咸	咥	咬	哄	哈	咨	
	9A3F		哂	哂	哃	哯	哥	哽	哥	哦	唏	唔	哽	哮	哭	哺	哢
	9A4F	唫	唯	唧	唗	售	啜	啅	啖	啗	唸	唳	唧	喙	喀	咯	喊
	9A5F	喟	啻	啾	喘	喞	單	啼	喃	喻	喇	喨	嗚	嗅	嗟	嗄	嗜
	9A6F	嗤	嗔	嘔	嗷	嘖	嗾	嗽	嘛	嗹	噎	噐	營	嘴	嘶	嘲	嘸
	9A80	噫	噤	噦	噬	噪	噭	噣	噂	噙	噠	噓	噸	鬱	嚶	嚴	嚞
	9A90	噺	噦	嚊	囀	囈	囎	囑	囓								
口	9A90									口	囘	圄	圀	囿	圄	圉	
	9A9E		圈	國	圍	圓	團	圖	嗇	圜							
土	9A9E										圠	圩	圳	圾	圻	址	坏
	9AAE	坩	垂	垈	坡	垳	垉	垓	垠	垳	垧	垾	垞	埃	埆	埔	埒
	9ABE	埒	埜	垅	埣	堋	堙	堝	塲	堡	塢	塋	塗	毀	塒	堲	塹
	9ACE	墅	墹	墟	墫	墺	壞	墻	墦	墮	壅	壓	壑	壘	壙	壘	壢
	9ADE	壩	壤	壟													
士	9ADE				壯	壺	壹	壻	壼	壽							
夂	9ADE										夂						
夊	9ADE											夂	夐				
夕	9ADE													彡	梦	夥	
大	9ADE																夬
	9AEE	夭	本	夸	夾	奇	奕	奐	奎	奚	奘	奢	奠	奧	奬	奩	
女	9B3F		奸	妁	妝	佞	佞	妣	妲	姆	姨	姜	妍	姸	姚	娥	娟
	9B4F	娑	娜	娉	娚	婀	娙	婉	娵	娶	婢	婪	媚	媼	媾	嫋	嫂
	9B5F	媽	嫣	嫗	嫦	嫩	嫖	嫺	嫻	嬌	嬋	嬖	嬲	嫐	嬪	嬶	嬾
	9B6F	孃	孅	孀													

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
子	9B6F				孑	孕	孚	孛	孥	孩	孰	孳	孵	學	孝	孺	
宀	9B6F																宀
	9B80	它	宦	宸	寃	寇	寉	寔	寐	寤	實	寢	寞	寥	寫	寰	寶
	9B90	寳															
寸	9B90		尅	將	專	對											
小	9B90						尒	尠									
尢	9B90								尢	尨							
尸	9B90										尸	尹	屁	屆	屎	屓	
	9B9E		屐	屏	孱	屬											
屮	9B9E						屮										
山	9B9E							屺	岁	屹	岌	岑	岔	妛	岫	岻	岼
	9BAE	岾	岷	峅	岵	峇	峙	峩	峽	峺	峭	嶌	峪	崋	崕	崗	崙
	9BBE	崟	崛	崑	崔	崢	崚	崙	崘	嵌	嵒	嵎	嵋	嵬	嵳	嵷	嶇
	9BCE	嶄	嶂	嶢	嶝	嶬	嶮	嶽	嶾	嶷	嶼	嶲	嶺	巔	巒	巖	
巛	9BCE																巛
工	9BDE	巫															
巳	9BDE		巳	巵													
巾	9BDE				帚	帚	帙	帑	帛	帶	帷	幄	幃	幀	幎	幗	幔
	9BEE	幟	幢	幣	幇												
干	9BEE					幵	并										
幺	9BEE							幺	麼								
广	9BEE									广	庠	廁	廂	廈	廏	廖	
	9C3F		廖	廣	廝	廚	廛	廢	廡	廨	廩	廬	廱	廳	廰		
廴	9C3F															廴	廸
廾	9C4F	廾	弃	弊	彝	彜											
弋	9C4F						弋	弒									
弓	9C4F								弖	弩	弭	弸	弼	彈	彌	彎	弯
彑	9C5F	彑	彖	彗	彙												
彡	9C5F					彡	彭										
彳	9C5F							彳	彷	徃	徂	彿	徊	很	徑	徇	從
	9C6F	徙	徘	徠	徨	徭	徼										
心	9C6F							忖	忻	忤	忸	忱	忝	悳	忿	怡	恠
	9C80	怙	怐	怩	怎	怱	怛	怕	怫	怦	怏	怵	恚	恁	恪	恣	悁
	9C90	悒	悧	悵	悤	悖	悩	悶	悸	悰	悽	惆	惇	惧	惘	悚	

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
心	9C9E		悄	悛	悖	悗	悃	悚	悋	惡	悸	惠	悵	惴	悴	惕	悽	惆
	9CAE	悵	惘	慍	愕	愆	惶	惷	愀	惴	惺	愃	愡	惻	惱	愍	愎
	9CBE	慇	愾	慤	愧	慊	愿	愼	愬	愴	愽	慂	慄	慳	慷	慘	慙
	9CCE	慚	慫	慴	慯	慥	慱	慟	慝	慓	慵	慠	慱	慼	慽	慮	慢
	9CDE	憊	憑	憫	憮	懌	懊	應	懷	懈	懃	懆	憺	懋	罹	懍	憺
	9CEE	懣	懶	懺	懴	懿	懽	懼	懾	戀							
戈	9CEE										戈	戉	戍	戍	戛	戞	戛
	9D3F		戞	戡	截	戮	戰	戲	戳								
戸	9D3F									扁							
手	9D3F										扎	扞	扣	扛	扠	扨	扼
	9D4F	抂	抉	找	抒	抓	抖	拔	抃	抔	拗	拑	抻	挙	拿	拆	擔
	9D5F	拈	拜	拌	拊	拂	拇	抛	拉	挌	拮	拱	挧	挂	挈	拯	拵
	9D6F	捐	挾	捍	搜	捏	掖	掎	掀	掫	捶	掣	掏	掉	掟	掄	捫
	9D80	捩	掾	揩	揀	揆	揣	揉	插	揶	揄	搖	搴	搆	搓	搦	搶
	9D90	攝	搗	搦	搏	搓	摯	搏	摎	攪	撕	撓	撥	撩	撈	撼	
	9D9E		據	擒	擅	擇	撻	擘	擂	擱	擧	舉	擠	擡	抬	擣	擯
	9DAE	攬	攄	擴	擲	擺	攀	攙	攘	攜	攅	攤	攣	攫			
攴	9DAE														攴	攵	攷
	9DBE	收	攸	畋	效	敖	敕	敍	敘	敞	敝	敲	數	斂	斃	變	
斗	9DBE																斛
	9DCE	斟															
斤	9DCE		斫	斷													
方	9DCE				旆	旆	旁	旄	旌	旒	旛	旙					
无	9DCE												无	旡			
日	9DCE														旱	杲	昊
	9DDE	昃	昱	杳	昵	昶	昴	昜	晏	晄	晉	晁	晞	晝	晤	晧	晨
	9DEE	晟	晢	晰	暃	暈	暎	暉	暄	暘	暝	暨	暹	曉	曖	曙	
	9E3F		曄	暸	曖	曚	曠	昿	曦	曩							
曰	9E3F										曰	曳	曷				
月	9E3F													朏	朖	朞	朦
	9E4F	朧	霸														
木	9E4F			朮	朿	朵	杁	朽	朷	杆	杞	杠	杙	杣	杤	枉	杰
	9E5F	枩	杼	杪	枌	枋	枦	枡	枅	枷	柯	枴	柬	枳	柩	枸	柤
	9E6F	柞	柝	柢	柮	枹	柎	柆	柧	檜	栞	框	栩	桀	桍	栲	桎

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
木	9E80	梳	栴	桿	档	桷	桿	梟	桔	梭	梔	條	梛	梃	檮	栞	桲
	9E90	梵	梠	栞	桎	桧	桾	椁	棊	椥	棘	椢	榜	棡	椌	棍	
	9E9E		棔	棧	棕	椶	椒	椄	棗	棣	椥	棹	棠	棯	椢	椪	椚
	9EAE	椀	梱	棆	楹	楷	椥	楸	楫	楔	楾	楮	椹	楴	椽	楙	椰
	9EBE	榆	楞	棟	椄	楪	榲	榮	槐	榿	槁	槓	梽	槎	棗	槊	楊
	9ECE	榻	槃	棰	梖	槫	榠	榜	榕	榴	槞	槨	樂	樛	槿	權	槔
	9EDE	槲	槧	樅	榱	樞	槭	樔	槫	樊	榕	槼	樣	樓	橄	樌	橲
	9EEE	橿	橘	橇	橢	橙	橦	橈	樸	樢	檐	檍	檠	檄	檢	檣	
	9F3F		檗	蘗	檻	櫃	櫂	檸	檳	檬	櫺	櫑	櫟	櫛	櫪	櫻	
	9F4F	欅	蘖	櫺	欒	欖	鬱	欟									
欠	9F4F								欸	欹	盜	欷	飮	歇	歃	歉	歐
	9F5F	歙	歔	歛	歟	歡											
止	9F5F						歸										
歹	9F5F							歹	歿	殀	殄	殃	殍	殘	殕	殞	殤
	9F6F	殪	殫	殯	殲	殱											
殳	9F6F						殳	殷	殼	毆							
毋	9F6F										毋	毓					
毛	9F6F												毳	毬	毫	毳	毯
	9F80	麾	氈														
氏	9F80			氓													
气	9F80				气	氛	氤	氣									
水	9F80								汞	汕	汢	汪	沂	沍	沚	沁	沛
	9F90	汾	汨	汳	沒	沐	泄	泱	泓	沽	泗	泅	泝	沮	沱	沾	
	9F9E		泔	泛	泯	泙	泪	洟	衍	洶	洫	洽	洸	洙	洵	洳	洒
	9FAE	洌	浣	涓	浤	浚	浹	浙	涎	涕	濤	涅	淹	渕	渊	涵	淇
	9FBE	淦	涸	淆	淬	淞	淌	淨	淒	淅	淺	淙	淤	淶	淪	淮	渭
	9FCE	湮	湩	渙	湲	湟	渾	渣	湫	溏	渌	湍	湞	湃	渺	湎	渤
	9FDE	滿	渝	游	溂	溪	溘	滉	溷	滓	溽	溯	滄	溲	滔	滕	溏
	9FEE	溥	滂	溟	潁	漑	灌	滬	滸	滾	漿	滲	漱	滯	漲	滌	
	E03F		漾	漓	滷	澆	潺	潸	澁	澀	潯	潛	濳	潭	澂	潼	潘
	E04F	澎	澑	濂	潦	澳	澣	澡	澤	澹	濆	澪	濟	濕	濬	濔	濘
	E05F	濱	濮	濛	瀉	瀋	濺	瀑	瀁	瀏	濾	瀛	瀚	瀦	瀝	瀘	瀟
	E06F	瀰	瀾	瀲	灑	灣											
火	E06F						炙	炒	炯	烟	炬	炸	炳	炮	烟	烋	烝

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
火	E080	烙	焉	烽	焜	焙	煥	煕	熙	煦	煢	煌	煖	煬	熏	燻	熄
	E090	燠	燬	燹	燗	燾	燼	燒	燉	燔	燎	燠	燬	燧	燵	燼	
	E09E		燹	燿	爍	爐	爛	爨									
爪	E09E								爭	爬	爰	爲					
爻	E09E												爻	爼			
爿	E09E														爿	牀	牆
	E0AE	牋	牘														
牛	E0AE			牴	牾	犂	犁	犇	犒	犖	犢	犠					
犬	E0AE												犹	狄	狃	狆	狄
	E0BE	狎	狒	狢	狠	狡	狹	狷	倏	猗	猊	猜	猖	猝	猴	猯	猩
	E0CE	猥	猾	獎	獏	默	獗	獪	獨	獰	獣	獵	獻	獺			
王	E0CE														珈	珙	珖
	E0DE	玻	珀	珥	珮	珞	璢	琅	瑯	琥	珶	琲	琺	瑕	瑾	瑟	瑙
	E0EE	瑁	瑜	瑩	瑰	瑣	瑪	瑶	瑾	璋	璞	璧	瓊	瓏	瓔	珱	
瓜	E13F		瓠	瓣													
瓦	E13F				瓧	瓩	瓮	瓲	瓰	瓱	瓸	瓷	甄	甕	甌	甎	
	E14F	甍	甕	甓													
甘	E14F				甞												
生	E14F					甦											
用	E14F						甬										
田	E14F							畚	畠	畋	畊	畉	畛	畝	畚	畎	畤
	E15F	畧	畫	畛	畸	當	疆	疇	畴	疊	疊	疊					
疒	E15F												疔	疚	疝	疥	疣
	E16F	痂	疳	痃	疵	疽	疸	疼	疱	痍	痊	痒	痙	痣	痞	痾	痿
	E180	痼	痒	痰	痺	痲	痳	瘋	瘍	瘉	瘟	瘧	瘠	瘡	瘢	瘤	瘴
	E190	瘰	瘻	癇	癈	癆	癌	癘	癡	癢	癨	癩	癪	癰	癬	癲	
	E19E		癲														
癶	E19E			癶	癸	發											
白	E19E						皂	皃	皈	皋	皎	皖	皓	皙	皚		
皮	E19E															皰	皺
	E1AE	皹	皹	皺													
皿	E1AE				盂	盍	盖	盒	盞	盡	盥	盧	盪	蘯			
目	E1AE														盼	眈	眇
	E1BE	眄	眩	眤	眞	眥	眦	眛	眷	眸	睇	睚	睨	睫	睛	睥	睿

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
目	E1CE	睾	睹	瞎	瞋	瞑	瞠	瞞	瞰	瞶	瞹	瞿	瞼	瞽	瞻	瞳	瞿
	E1DE	矗	矚														
矛	E1DE			矜													
矢	E1DE				矣	矮											
石	E1DE						砿	砌	砒	礦	砠	礪	硅	碎	硼	碆	硼
	E1EE	碚	碌	碣	碵	碪	磕	磴	磆	磋	磔	碾	碼	磅	磊	磬	
	E23F		磧	磚	磽	磴	礫	礒	礑	礙	礬	礫					
示	E23F												祀	祠	祇	祟	祚
	E24F	祕	祓	祺	祿	禊	禍	禧	齋	禪	禮	禳					
禺	E24F												禹	禺			
禾	E24F														秉	秕	秧
	E25F	秬	秡	秣	稈	稍	稘	稙	稠	稟	禀	稱	稻	稾	稷	稼	穂
	E26F	穐	穡	穢	穩	龝	穰										
穴	E26F							穹	窄	窈	窗	窕	窘	窖	窩	竈	窯
	E280	窶	窺	竄	窿	邃	竇	竊									
立	E280								竗	竚	竗	竰	竕	竚	竝	竡	竢
	E290	竦	竭	竰													
竹	E290				笂	笏	笊	笆	笳	笘	笙	笞	笵	笨	笑	筐	
	E29E		筺	笄	筍	笋	筌	筅	筵	筥	筴	筧	筰	筱	筑	筮	箝
	E2AE	箘	箙	箍	箜	箚	箋	箒	箏	筝	箙	箘	箟	箘	箙	箴	篆
	E2BE	篝	篩	簑	簔	篦	篥	籠	簀	簇	簀	篳	篷	簗	簍	篶	簀
	E2CE	簧	簪	簟	簷	簫	簽	籌	籃	籔	簇	籀	籐	籐	籟	籤	籤
	E2DE	籥	籬														
米	E2DE			粁	粗	粕	粤	粭	粂	粨	粡	粨	粳	粱	粱	粮	粹
	E2EE	粽	糀	糅	糘	糘	糯	糜	糢	鬻	糯	糲	糴	糶			
糸	E2EE														糺	紆	
	E33F		紂	紜	紕	紊	紬	紘	紮	紲	紿	紵	絆	絳	絖	絎	絲
	E34F	絨	絮	絏	絣	經	綉	條	綏	絽	綛	綺	綮	綣	綵	緇	綽
	E35F	綫	總	綢	綯	縣	綸	綟	綰	緘	緝	緤	緞	緻	緲	緡	縅
	E36F	縊	縣	縡	縒	縱	縟	縉	縋	縢	繆	繩	縻	縵	縹	繃	縷
	E380	縲	縺	繧	繝	繖	繞	繙	繚	繹	繪	繩	繼	繻	繻	繽	繽
	E390	辮	繿	纈	纉	續	纒	纈	纓	纔	纖	纎	纛	纜			
缶	E390														缸	缺	
	E39E		罅	罌	罍	罐	罐										

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
网	E39E							网	罕	罔	罕	罟	罠	罼	罩	罵	罰
	E3AE	羈	羆	羃	羈	羇											
羊	E3AE						羌	羔	羞	羝	羚	羣	羯	羹	羹	羹	羶
	E3BE	羸	譱														
羽	E3BE			翅	翠	翊	翕	翔	翡	翦	翩	翳	翹	飜			
老	E3BE														耆	耄	耋
耒	E3CE	耒	耘	耙	耜	耡	耨										
耳	E3CE							耿	耻	聊	聆	聒	聘	聚	聟	聢	聯
	E3DE	聳	聲	聰	聶	聹	聽										
聿	E3DE							聿	肄	肆	肅						
肉	E3DE											肛	肓	肚	肭	冐	肬
	E3EE	胛	胥	胙	胝	胄	胚	胖	脉	胯	胱	脛	脩	脣	脯	腋	
	E43F		隋	腆	脾	腓	腑	胼	腱	腮	腥	腦	腴	膃	膈	膊	膀
	E44F	膂	膠	膕	膤	膣	腟	膓	膩	膰	膵	膾	膸	膽	臀	臂	膺
	E45F	臉	臍	臑	臙	臘	臈	臚	臟	臠							
臣	E45F										臧						
至	E45F											臺	臻				
臼	E45F													臾	舁	舂	舅
	E46F	與	舊														
舌	E46F			舍	舐	舗											
舟	E46F						舩	舫	舸	舳	舮	艙	艘	艝	艚	艟	艤
	E480	艨	艩	艫	艪	艮											
艮	E480						艱										
色	E480							艶									
艸	E480								艸	艾	芍	芒	芫	芟	芻	芬	苡
	E490	苣	苟	苒	苴	苳	苺	莓	范	苻	苹	苞	茆	苔	茉	苙	
	E49E		茵	茴	茖	茲	茱	荀	茹	荐	荅	茯	茫	茗	荔	荀	莚
	E4AE	莪	莟	莢	莖	莫	莎	莇	莊	莽	莵	莒	莘	莠	莉	莨	菴
	E4BE	萓	菫	菎	菽	萃	菘	萋	菁	菷	萇	菠	菲	萍	菢	萠	莽
	E4CE	萸	萾	萩	葭	葎	葤	葦	葥	葷	葫	葯	葰	葙	葩	葆	萬
	E4DE	葯	葹	萵	蓊	葢	蒹	蒿	蒟	蓙	蓍	蓊	蓚	蓆	蓼	蓙	蓖
	E4EE	蒭	蔡	蓿	蓴	蔗	蔘	蔬	蔟	蔕	蔔	蓼	蔭	蔣	蔚	蓺	
	E53F		蕁	藥	蓯	蓿	蓋	薙	薈	薑	薊	薨	蕭	薔	薛	藪	薇
	E54F	薜	蘋	蕾	藐	藉	薺	藏	臺	藐	藕	藝	藥	藜	藹	蘊	蘓

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
艸	E55F	蘋	藾	藺	蘆	蘢	蘚	蘰	蘿								
虍	E55F									虎	虏	虔	號	虧			
虫	E55F														虱	蚓	蚣
	E56F	蚩	蚪	蚋	蚌	蚶	蚯	蛄	蛆	蛔	蛉	蠣	蛹	蛔	蛞	蛩	蛰
	E580	蛟	蛛	蛯	蛭	蛻	蛾	蜀	蜃	蜕	蜑	蜉	蜍	蛹	蜊	蜴	蜿
	E590	蜷	蜻	蜥	蜩	蜚	蝠	蝟	蝸	蝌	蝎	蝴	蝗	蝨	蝮	蝙	
	E59E		蝓	蝣	蝪	蠅	螢	螟	螂	螯	螋	螽	蟀	蟐	雖	螯	蟄
	E5AE	螳	蟇	蟆	螻	蟯	蟲	蟠	蠏	蠍	蟾	蟶	蟷	蠣	蟒	蠑	蠖
	E5BE	蠕	蠢	蠡	蠱	蠶	蠹	蠧	蠻								
血	E5BE									衄	衂						
行	E5BE											衒	衙	衛	衢		
衣	E5BE															衫	袁
	E5CE	衾	衰	衵	衽	衿	袂	袂	袗	袒	袮	袹	袢	袍	袤	袈	袿
	E5DE	袱	袴	袵	裔	裘	裙	裝	裹	褂	褐	裴	裨	裲	褄	褌	褊
	E5EE	褓	褒	褫	褥	褪	褶	褸	襄	褻	褶	褸	褌	褝	襠	襞	
	E63F		襦	襤	襁	襪	襷	襴	襷								
覀	E63F									覀	覃	覈	覊				
見	E63F													覓	覗	覡	覩
	E64F	覦	覬	覲	覯	覺	覽	覿	觀								
角	E64F									觚	觜	觝	觧	觴	觸		
言	E64F															訃	訖
	E65F	訐	訌	訛	訝	訥	訶	詁	詛	詒	詆	詈	詼	詭	詬	詢	詆
	E66F	誂	誄	誨	誡	誑	誥	誦	誚	誣	諄	諍	諂	諚	諤	諫	諧
	E680	諤	諱	謔	諠	諢	諷	諞	諛	謌	謇	謚	諡	謖	謗	謠	
	E690	謳	鞫	謦	謫	謾	謨	譁	譌	譏	譎	證	譖	譜	譚	譫	
	E69E		譟	譬	譯	譴	譽	讀	讌	讎	讒	讓	讖	讙	讚		
谷	E69E															谺	谿
	E6AE	豁															
豆	E6AE		豈	豌	豎	豐											
豕	E6AE						豕	豢	豬								
豸	E6AE									豸	豺	貂	貉	貊	貊	貍	貎
	E6BE	貔	貔	貘													
貝	E6BE				貶	貭	貪	貽	貲	貳	貳	貶	賈	賁	賤	賣	賚
	E6CE	賽	賺	賻	贄	贅	贊	贇	贏	贍	贔	齎	贓	賍	贔	贖	

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
赤	E6CE																赧
	E6DE	赭															
走	E6DE			赱	赳	趁	趁										
足	E6DE						跂	趾	趺	跏	跚	跖	跌	跛	跋	跪	跫
	E6EE	跟	跣	跼	踈	踉	踦	踝	踞	踐	踟	踙	踵	踰	踴	踖	
	E73F			踧	踉	踏	踏	踷	蹤	蹠	蹤	蹣	蹕	蹶	蹲	蹼	躁
	E74F	躇	躅	躄	躋	躊	躓	躑	躔	躙	躪	躡					
身	E74F												躬	躰	體	躱	躾
	E75F	軀	軆														
車	E75F			軋	軛	軦	軼	軻	軫	軾	軽	軺	軽	軏	軟	軛	軮
	E76F	較	輌	輌	輦	輳	輻	輹	轅	轂	轅	轌	轉	轆	轎	轗	轜
	E780	轣	轢	轤													
辛	E780				辜	辟	辣	辭	辯								
辶	E780									辷	迚	迥	迢	迪	迯	邇	迴
	E790	逅	迹	迺	逑	逕	逡	逍	逞	逖	逋	逎	透	逵	達	逝	
	E79E		遏	遐	遑	遒	逎	遉	逾	遖	遘	遞	遨	遯	遶	隨	遲
	E7AE	邂	遽	邁	邀	邊	邉	邏									
邑	E7AE								邨	邯	邱	邵	郢	郤	扈	郛	鄂
	E7BE	鄒	鄙	鄢	鄰												
酉	E7BE					酊	酔	酘	酣	酥	酩	酳	酲	醋	醉	醂	醢
	E7CE	醫	醢	醪	醸	醴	醺	醸	釁								
采	E7CE									釉	釋						
里	E7CE											釐					
金	E7CE												釦	釜	釣	釼	
	E7DE	釵	釶	鈎	釿	鈔	鈬	鈕	鈑	鉞	鉗	鉅	鉉	鉤	鉈	銕	鈿
	E7EE	鉋	鉑	鉤	銖	銓	銛	銚	鋏	錆	銷	鋩	錙	鋺	錀	鋼	
	E83F		錙	錢	錚	錣	錺	錵	錻	鍜	鍠	鍼	鍮	鍖	鎰	鎬	鎭
	E84F	鎔	鎹	鏖	鏗	鏨	鏥	鏘	鏃	鏝	鏐	鏈	鏤	鐚	鐔	鐓	鐃
	E85F	鐇	鐐	鐶	鐫	鐵	鐡	鐺	鑁	鑒	鑄	鑛	鑠	鑢	鑞	鑪	鈩
	E86F	鑰	鑵	鑷	鑚	鑚	鑼	鑾	钁	鑿							
門	E86F										閂	閇	閊	閔	閖	閘	閙
	E880	閏	閨	閧	閭	閖	閤	閹	閾	閼	潤	閾	閣	閬	閾	闔	闖
	E890	關	闡	闥	闢												
阜	E890					阡	阨	阮	阯	陂	陌	陏	陋	陷	陜	陞	

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
阜	E89E		陝	陟	陦	陲	陬	隍	隘	隕	隗	險	隧	隱	隲	隰	隴
隶	E8AE	隶	隸														
隹	E8AE			隹	睢	雋	雉	雍	襍	雜	霍	雕					
雨	E8AE												雹	霄	霆	霈	霓
	E8BE	霎	霑	霏	霖	霙	霤	霪	霰	霹	霽	霾	靄	靆	靈	靂	靉
青	E8CE	靜															
非	E8CE		靠														
面	E8CE			靤	靦	靨											
革	E8CE						勒	靱	靭	靹	鞅	靼	鞁	靺	鞆	鞋	鞏
	E8DE	鞐	鞜	鞨	鞦	鞳	鞴	鞹	鞾	鞻	鞿						
韋	E8DE											韋	韜				
韭	E8DE													韭	韲	韮	
音	E8DE																竟
	E8EE	韶	韵														
頁	E8EE			頇	頌	頸	頤	頡	頷	頽	顆	顏	顋	顫	顯	顰	
	E93F		顱	顴	顳												
風	E93F					颪	颯	颱	颶	飄	飃	飆					
食	E93F												飩	飫	飭	飴	飼
	E94F	餔	餘	餡	餉	餞	餤	餅	餬	餮	餽	餾	饂	饉	饅	饐	饋
	E95F	饑	饒	饌	饗												
首	E95F					馗	馘										
香	E95F							馥									
馬	E95F								馭	馮	馼	馴	馹	駝	駘	駑	駭
	E96F	駮	駱	駲	駸	駻	駾	騏	騅	騈	騙	騫	騒	驅	驂	驀	驃
	E980	驟	驕	驍	驛	驗	驟	驢	驤	驤	驩	驫	驪				
骨	E980													骭	骰	骼	髀
	E990	髏	髑	髓	體												
高	E990					髜											
髟	E990						髟	髫	髣	髦	髯	髫	髮	髴	髷	髻	
	E99E		髷	鬆	鬘	鬚	鬟	鬢	鬣								
鬥	E99E									鬥	鬧	鬨	鬩	鬮	鬯		
鬯	E99E															鬯	
鬲	E99E																鬲
鬼	E9AE	魄	魅	魏	魍	魎	魑	魘									

	Shift JIS	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
魚	E9AE								魴	鮓	鮃	鮑	鮖	鮟	鮱	鮫	鮭
	E9BE	鮴	鮻	鮫	鮹	鮪	鮮	鮨	鮪	鰐	鰍	鰕	鰓	鰒	鰣	鰤	鰭
	E9CE	鰥	鰕	鰔	鰉	鰓	鰌	鰆	鰈	鰒	鰊	鰔	鰓	鰛	鰡	鰺	鰾
	E9DE	鰌	鰷	鰲	鱒	鰾	鰹	鰳	鱧	鱶	鱸						
鳥	E9DE											鳧	鳬	鳰	鳴	鳶	
	E9EE	鳫	鴃	鴆	鴦	鴛	鴣	鴟	鴪	鴕	鴿	鴇	鴿	鴾	鵆	鵈	
	EA3F		鵝	鵞	鵄	鵑	鵐	鵙	鵲	鶉	鶇	鶇	鶫	鵺	鶯	鶲	鵞
	EA4F	鶲	鶏	鷁	鶻	鶸	鶺	鷆	鷏	鷁	鷙	鷓	鷭	鷦	鷭	鷯	鷺
	EA5F	鸚	鸛	鸞													
鹵	EA5F				鹵	鹹	鹽										
鹿	EA5F							麁	塵	麋	麕	麒	麕	麑	麝		
麥	EA5F															麥	麩
	EA6F	麸	麪	麭													
麻	EA6F				靡												
黄	EA6F					黌											
黍	EA6F						黎	黏	黝								
黒	EA6F									黔	黜	點	黝	黠	黟	黨	黯
	EA80	黴	黶	黷													
黹	EA80				黹	黻	黼										
黽	EA80							黽	鼇	鼈							
皷	EA80										皷	鼕					
鼠	EA80												鼬	鼬			
鼻	EA80														鼾		
齊	EA80															齊	
齒	EA80																齒
	EA90	齔	齣	齟	齠	齢	齦	齧	齬	齪	齷	齲	齶				
龍	EA90													龕			
龜	EA90														龜		
龠	EA90															龠	

10.2 2-D Code

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

MAXI Code

ESC+BV

HEX Code	ESC	BV	Parameter
	<1B>16	<42>16<56>16	a,b,c,ddddddddd,eee,fff,n~n
Default Value	NIL		

Valid Range & Terms of Command	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify 2-D Code MAXI code

[Format]

<BV>a,b,c,ddddddddd,eee,fff,n~n

● Parameter

a	{Symbol Number}	=	valid range	:	1~8
b	{Symbol Digit Number}	=	valid range	:	1~8
c	{Mode}	=	2	:	for distribution
			3	:	for distribution
			4	:	standard symbol
			6	:	for scanner
d	{Postal Code}	=	valid range	:	0~999999999 (mode 2)
					000000~999999 (mode 3)
					* Max 9 digits when at mode 2 (numeric)
					* 6 digits is fixed when at mode 3 (specify capital letters for alphabet)
e	{Country Code}	=	valid range	:	001~999
f	{Service Class}	=	valid range	:	001~999
n	{Low Priority Message}	=	Alphanumeric / Symbol		

Mode	Service Class	Country Code	Postal Code	Max Print Data Size	
				Numeric Only	Mixture of Alphanumeric
2	3 digits fixed (numeric only)	3 digits fixed (numeric only)	Max 9 digits	123	84
3			6 digitis fixed (mixture of alphanumeric)		
4	Omit			138	93
6					

[Coding Example]

<A>

<V>100<H>200**<BV>1,1,2,123456789,001,002,SAHTHA**

<Q>2

<Z>

[Supplementary Explanation]

1.At MAXI code, the printed MAXI code size will not change from the print data number.

2.Printing will not be performed if the specified parameter not indicated cannot fixed to the print data number.

3.When mode4, 6 is specified, the print data number must be specified at 12 above. If the print data number is specified at less than 11, the printed MAXI code will become unreadable at the scanner.

MAXI Code Code Table

					S								I				S				O			
				b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
				b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
B4	**b3**	**b2**	**b1**		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**F**
0	0	0	0	**0**			SP	0	@	P	`	p								
0	0	0	1	**1**			!	1	A	Q	a	q								
0	0	1	0	**2**			”	2	B	R	b	r								
0	0	1	1	**3**			#	3	C	S	c	s								
0	1	0	0	**4**			$	4	D	T	d	t								
0	1	0	1	**5**			%	5	E	U	e	u								
0	1	1	0	**6**			&	6	F	V	f	V								
0	1	1	1	**7**			’	7	G	W	g	w								
1	0	0	0	**8**			(	8	H	X	h	x								
1	0	0	1	**9**			)	9	I	Y	i	y								
1	0	1	0	**A**			*	:	J	Z	j	z								
1	0	1	1	**B**			+	;	K	[	k	{								
1	1	0	0	**C**			,	<	L	\	l	¦								
1	1	0	1	**D**			-	=	M	]	m	}								
1	1	1	0	**E**			.	>	N	^	n	~								
1	1	1	1	**F**			/	?	O	_	o	DEL								

MAXI Code is specified from{01H~FFH}

10.3 2-D _Code

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

PDF417 — ESC+BK

HEX Code	ESC	BK	Parameter
	<1B>16	<42>16<4B>16	aabbcddeeffffg~g(,h)
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify 2-D Code PDF417

[Format]
<BK>aabbcddeeffffg~g(,h)

● Parameter

a {Min Module Width Dimension} = valid range : 01~09 (dot)

b {Min Module Vertical Dimension} = valid range : 01~24 (dot)

c {Security Level} = valid range : 0~8

d {Data Code Word Number per line}(cols) = valid range : 01~30
00 : auto(horizontal size is valid for change from specified data number)

e {Line Number per Symbol} (rows) = valid range : 03~90
00 : auto (vertical size is valid for change from specified data number)

f {Data Digit Number} = valid range : 0001~2681

g {Print Data} = data

h {PDF Code Type} = when omit : PDF417
T : Shortened Type
M : Micro PDF417

[Coding Example]Min Module Width Dimension:03 (dot), Min Module Vertical Dimension:09 (dot), Security Level:3,
Data Code Word Number per 1 line:03, Line Number per Symbol:18

<A>
<V>100<H>200**<BK>0309303180010PDF1234567**
<Q>2
<Z>

[Supplementary Explanation]
1.Even if 01, 02 dot specification of min module width dimension is valid, it may not be read by the scanner.
2.Even if 01, 02, 03 dot specification of min module vertical dimension is valid, it may not be read by the scanner.
3.If the data code word per 1 line and line number per symbol is specified at 00, the vertical horizontal size from print data number is (aspect ratio) is 1 : 2.
4.When security level is enlarged, it is necessary to specify largely with the line number per symbol or data code word number per 1 line.
5.The max value of data number is 2681, but there is difference among min module dimension, security level and print data type specification.
6.Printing will not be performed if parameter specification and data number is inconsistent.
7.When micro PDF417 is specified with PDF code type, line numbers of as per symbol is defined by specifying data code word number as per 1 line. By doing so, the max value of data digit numbers can be defined. Details can be referred to next page, “Symbol Size and Data Number of Micro PDF417”
8.When micro PDF417 is specified by PDF code type, specification of security level will become invalid.

[Point]
1.Cannot be sequential number.
2.Print position cannot be specified by auto new line starting.
3.The print specification of 00H~FFH is valid.
4.Valid in format registration.
5.Enlarge the minimum module dimension to upgrade the print quality.
6.Enlarge the value of security level to improve the reading ratio.
7.The print height is different only when it is at alphabet, numeric and mixed alphanumeric.

* The symbol size of micro PDF417 is fixed at 34 type according to the following table.

{Symbol size and data number of micro PDF417}

Symbol Size		Maximum Value of Data Digit Number	
cols(d)	rows(e)	Alphabet only(A~Z)	Numeric only
1	11	6	8
	14	12	17
	17	18	26
	20	22	32
	24	30	44
	28	38	55
2	8	14	20
	11	24	35
	14	36	52
	17	46	67
	20	56	82
	23	64	93
	26	72	105
3	6	10	14
	8	18	26
	10	26	38
	12	34	49
	15	46	67
	20	66	96
	26	90	132
	32	114	167
	38	138	202
	44	162	237
4	4	14	20
	6	22	32
	8	34	49
	10	46	67
	12	58	85
	15	76	111
	20	106	155
	26	142	208
	32	178	261
	38	214	313
	44	250	366

* The mixture of alphabet (capital letters, small letters), numeric and control code will be different based on the character number combination.

PDF417 (includes micro PDF417) Code Table

					S								S							
				b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
				b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
b4	**b3**	**b2**	**b1**		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**F**
0	0	0	0	**0**			SP	0	@	P	`	p								
0	0	0	1	**1**			!	1	A	Q	a	q								
0	0	1	0	**2**			”	2	B	R	b	r								
0	0	1	1	**3**			#	3	C	S	c	s								
0	1	0	0	**4**			$	4	D	T	d	t								
0	1	0	1	**5**			%	5	E	U	e	u								
0	1	1	0	**6**			&	6	F	V	f	v								
0	1	1	1	**7**			’	7	G	W	g	w								
1	0	0	0	**8**			(	8	H	X	h	x								
1	0	0	1	**9**			)	9	I	Y	i	y								
1	0	1	0	**A**			*	:	J	Z	j	z								
1	0	1	1	**B**			+	;	K	[	k	{								
1	1	0	0	**C**			,	<	L	\	l	¦								
1	1	0	1	**D**			-	=	M	]	m	}								
1	1	1	0	**E**			.	>	N	^	n	~								
1	1	1	1	**F**			/	?	O	_	o	DEL								

PDF417 (includes micro PDF417)can be specified from{00H~FFH}

10.4 2-D Code

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Data Matrix

ESC+BX

HEX Code	ESC	BX	Parameter
	<1B>16	<42>16<58>16	aabbccddeeefffghh
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify 2-D Code Data Matrix

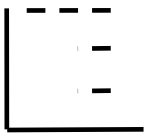
[Format](Setting)

<BX>aabbccddeeefffghh

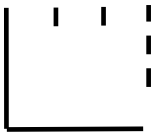
● Parameter

a	{Format ID}	=	valid range	:	01~06
b	{Error Correction Level}	=	00	:	(ECC000)
			05	:	(ECC050)
			08	:	(ECC080)
			10	:	(ECC100)
			14	:	(ECC140)
			20	:	(ECC200)
c	{Cell Width Size}	=	valid range	:	01~16 (dot/cell)
d	{Cell Pitch Size}	=	valid range	:	01~16 (dot/cell)
e	{Cell Number of 1 line}	=	valid range	:	008~148
			000	:	(Auto Setting)
f	{Cell Line Number}	=	valid range	:	008~148
			000	:	(Auto Setting)
g	{Mirror Image}		0	:	normal image (normal printing)
			1	:	mirror image
h	{Guide Cell Size}		valid range	:	01~15

Normal Image Print



Mirror Image Print



Format ID Table

Error Correction	Format ID					
	01	02	03	04	05	06
00（ECC000）	500	452	394	413	310	271
05（ECC050）	457	333	291	305	228	200
08（ECC080）	402	293	256	268	201	176
10（ECC100）	300	218	190	200	150	131
14（ECC140）	144	105	91	96	72	63

20（ECC200）	Numeric	3116
	Alphanumeric	2335
	Binary（01H～FFH）	1556

※ The value above is to show the maximum data number to be specified as barcode data.

[Supplementary Explanation]

1.When error correction level is specified at 20, the thickness specification of format ID, mirror image and guide cell will be ignored.

2.Cell width size and cell pitch size can be specified together at 01, 02, it may not be read under certain situation. 00 means the error.

3.When 1 line cell number and cell line number is specified together at 000, the most ideal matrix size will be specified automatically from the data number.

4.The thickness of guide cell for normal type is 01.

10.5 2-D Code

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Data Matrix Data Specification

ESC+DC

HEX Code	ESC	DC	Parameter
	<1B>16	<44>16<43>16	n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify data of 2-D code Data Matrix

[Format](Data Specified)

<DC>n~n

● Parameter

n {Print Data} = Data

[Coding Example] Font ID:01, error correction level:10(ECC100), cell width size:02, cell pitch size:02,
cell number of 1line:000, cell line number:000, mirror image:normal image (normal printing)

<A>
<V>100<H>200
<BX>01100202000000001
<DC>1234567890
<Q>2
<Z>

10.6 2-D Code

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Data Matrix Sequential Number Specification

ESC+FX

HEX Code	ESC	FX	Parameter
	<1B>16	<46>16<58>16	aaabcccdddeee
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify sequential number of 2-D Code, Data Matrix.

[Format] (sequential number specification)

<FX>aaabcccdddeee

● Parameter

a	{Similar Content Print Number}	=	valid range	:	001~999
b	{Increase/Decrease Graph}	=	+	:	increase
			-	:	decrease
c	{Increase/Decrease Number}	=	valid range	:	001~999
d	{Digit Position Specification}	=	valid range	:	001~999
e	{Digit Number}	=	valid range	:	001~999

[Coding Example] Font ID:01, Error Correction Level:10(ECC100), Cell Width Size:02, Cell Pitch Size:02, Cell Number of per line:000, Cell Line Number:000, Mirror Image:Normal Image (normal printing) 0

<A>
<V>100<H>200
<FX>001+001005003
<BX>01100202000000001
<DC>00006000
<Q>2
<Z>

Data Matrix Code Table

					S								S				O			
				b8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
				b7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
B4	**b3**	**b2**	**b1**		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**	**F**
0	0	0	0	**0**			SP	0	@	P	`	p								
0	0	0	1	**1**			!	1	A	Q	a	q								
0	0	1	0	**2**			”	2	B	R	b	r								
0	0	1	1	**3**			#	3	C	S	c	s								
0	1	0	0	**4**			$	4	D	T	d	t								
0	1	0	1	**5**			%	5	E	U	e	u								
0	1	1	0	**6**			&	6	F	V	f	v								
0	1	1	1	**7**			’	7	G	W	g	w								
1	0	0	0	**8**			(	8	H	X	h	x								
1	0	0	1	**9**			)	9	I	Y	i	y								
1	0	1	0	**A**			*	:	J	Z	j	z								
1	0	1	1	**B**			+	;	K	[	k	{								
1	1	0	0	**C**			,	<	L	\	l	¦								
1	1	0	1	**D**			-	=	M	]	m	}								
1	1	1	0	**E**			.	>	N	^	n	~								
1	1	1	1	**F**			/	?	O	_	o	DEL								

Data Matrix can be specified from{00H~FFH}
Specify{7EH, 00H}if 00H is specified
Specify{7EH, 7EH}if 7EH is specified

11. Graphic Command

11.1 Graphic

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Graphic Print Specification	ESC+G

HEX Code	ESC	G	Parameter
	<1B>16	<47>16	abbbcccn~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify graphic printing

[Format]
<G>abbbcccn~n
● Parameter
a {to specify HEX, Binary Data}
H:HEX Data Divide 8 bit data into 4 bit, output as a Hex code that support ASCII
B:Binary Data Output 8 bit as 1 font data
b {Specify horizontal direction graphic area with byte unit} = valid range : refer to table below
c {Specify vertical direction graphic area with byte unit} = valid range : refer to table below
n {Graphic Data}

[Coding Example]
<A>
<V>50<H>50**<G>H02000288888888…8888**
<Q>2
<Z>

[Supplementary Explanation]
1.Although the program explanation of “B” specification is longer than “H” specification , however, the transfer data length is splited into half that will benefit the capacity.
2.Rotate specification <%>, Enlargement specification <L> is valid.

[Specify Range]

Model	H Direction Maximum Byte	V Direction Maximum Byte
CL408e、M-8400RVe、M-84Pro-2	104	178
CL412e、M-84Pro-3	156	267
CL608e、M-8460Se	152	178
CL612e	248	267
M-5900RVe、M-8459Se	112	178
M-10eDT/TT	400	450
M-8485Se	128	178
M-8490Se	168	267
M-84Pro-6	312	534

11.2 Graphic

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

BMP File Print Specification

ESC+GM

HEX Code	ESC	GM	Parameter
	<1B>16	<47>16<4D>16	aaaaa,n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify BMP file print that is created at the Windows paint brush.

[Format]

<GM>aaaaa,n~n

● Parameter

a {Total Byte Number of BMP File}

n {Data}

[Coding Example]

<A>

<V>50<H>50**<GM>04500,2000288888888…8888**

<Q>2

<Z>

[Supplementary Explanation]

1. Data is sent by binary data (output 8 bit in one shot as 1 font data) (the file size of the BMP file is the total byte size, BMP file data becomes the data)
2. BMP file is the print head until 62 bytes of the data, data thereafter becomes the compressed data.
3. When BMP file total byte size is inconsistent with transfer data, it may considered as the cause of abnormal motion.
4. Total byte size is the file size shown at the property etc.
5. BMP file can be used at the black/white mode only. The BMP file of the color mode will become command error, stop it from printing. And, it doesn't support the compressed type BMP file. Start print only after the enlargement of file is confirmed as the "BMP".
6. Rotate Specification <%>, Enlargement Specification <L> is valid.

11.3 Graphic

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

PCX File Print Specification

ESC+GP

HEX Code	ESC	GP	Parameter
	<1B>16	<47>16<50>16	aaaaa,n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify PCX file printing which is created at the Windows paint brush etc

[Format]

<GP>aaaaa,n~n

● Parameter

a {PCX File Total Byte Size}

n {Data}

[Coding Example]

<A>

<V>50<H>50**<GP>04500,XXXXXXXXXXX**

<Q>2

<Z>

[Supplementary Explanation]

1.Send the data with binary data (output the 8 bit in one shot as 1 font data) (the file size of the PCX file becomes the total byte size, PCX file data will become the data)

2.PCX file is the print head until the 128 bytes of data, data thereafter becomes the compressed data.

3.When the PCX file total byte size is inconsistent with the transfer data, it may considered as the cause of abnormal motion.

4.Total byte size is the file size shown at the property etc.

5.PCX file can be used at the black/while mode only. The PCX file of color mode will become command error and stop it from printing. And, it doesn't support compressed type PCX file.
Start print only after the enlargement of file is confirmed to be the "PCX".

6.Rotate specification <%>, Enlargement specification <L> is valid.

12. System Command

12.1 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Print Speed Specification	ESC+CS

HEX Code	ESC	CS	Parameter
	<1B>16	<43>16<53>16	aa
Default Value	Refer to the table below		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]

To specify the print speed

[Format]

<CS>aa

- Parameter

a {Print Speed} = refer to the table below

[Coding Example]

<A>

<CS>3

<Z>

[Supplementary Explanation]

1. Print speed value that is set directly from command or printer LCD will be maintained.

[Point]

1.If value out of setting range is specified, it become command error but print speed will not change.

2.Print speed can be set at default value at printer default set operation.

[Parameter Default Value and Specified Range]

Model	Default Value	Parameter Valid Range	Print Speed against Parameter
CL408e/412e	4	2, 3, 4, 5, 6	2 : 2 inch/sec (50mm/sec) 3 : 3 inch/sec (75mm/sec) 4 : 4 inch/sec (100mm/sec) 5 : 5 inch/sec (125mm/sec) 6 : 6 inch/sec (150mm/sec) 7 : 7 inch/sec (175mm/sec) 8 : 8 inch/sec (200mm/sec) 10 : 10 inch/sec (250mm/sec) 12 : 12 inch/sec (300mm/sec)
M-8400RVe	6	2, 4, 6, 8, 10	
M-5900RVe	3	2, 3, 4, 5, 6	
CL608e/612e	6	4, 6, 8	
M-10e	4	3, 4, 5	
M-8485Se	6	4, 6, 8, 10, 12	
M-8490Se	6	4, 6, 8	
M-8460Se	6	4, 6, 8	
M-8459Se	4	2, 3, 4, 5	
M-84Pro-2	6	2, 4, 6, 8, 10	
M-84Pro-3	6	2, 4, 6, 8	
M-84Pro-6	3	2, 3, 4, 5, 6	

12.2 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Print Darkness Specification

ESC+#E

HEX Code	ESC	#E	Parameter
	<1B>16	<23>16<45>16	ab
Default Value	Refer to the table below		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is maintained
	Valid Range within Items	The set parameter is valid until the next specification is done.
	Valid Range between Items	The set parameter is valid until the next specification is done.

[Function]

To specify print darkness

[Format]

<#E>ab

● Parameter

a {Print Darkness Level Specification} = refer to the table below

b {Print Darkness Specification} = A~F (omittable)

Use{A}for normal condition

(Do not use{B~F})

*{B}is valid for use at CL412e, M-8400RVe, M-84Pro-6.

Specify{A~F}for print darkness specification based on applied label.

[Coding Example]

<A>

<#E>3

<Z>

[Supplementary Explanation]

1. Print darkness value that is set directly from command or printer LCD will be maintained.

[Point]

1.If value out of setting range is specified, it become command error but print darkness will not change.

2.Print darkness can be set at default value by printer default set operation.

[Parameter{a}Default Value and Valid Range]

Model	Default Value	Parameter Valid Range	Model	Default Value	Parameter Valid Range
CL408e/412e M-8400RVe M-10eDT/TT M-5900RVe M-8459Se M-84Pro-2/3/6	3：Normal	1：Light 2：Medium Light 3：Normal 4：Medium Dark 5：Dark	CL608e/612e M-8485Se/90Se/60Se	2：Normal	1：Light 2：Normal 3：Dark

12.3 System

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Label Size Specification

ESC+A1

HEX Code	ESC	A1	Parameter
	<1B>16	<41>16<31>16	aaaabbbb
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is done.
	Valid Range between Items	The set parameter is valid until the next specification is done.

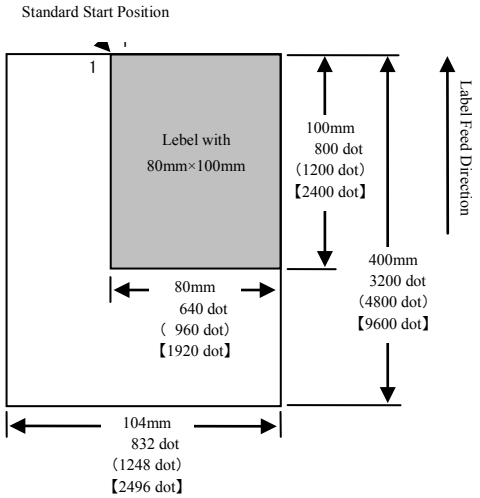
[Function]
To specify label size

[Format]
<A1>aaaabbbb
● Parameter

a	{Vertical Label Size}	=	valid range	:	refer to the next page
b	{Horizontal Label Size}	=	valid range	:	refer to the next page

[Coding Example]
<A>
<A1>08000640
<Z>

[Supplementary Explanation]
1. If the label that is smaller than the print head width is used, by specifying the label size with this command, standard start position can support label size.
2. Backing paper shall be included in the specified label size.



Value of（ ）is 12 dot/mm
Value of【 】is 24 dot/mm

[Specified Range]

Model	Horizontal Label Size (dot)	Vertical Label Size (dot)
CL408e M-8400RVe M-84Pro-2	1～832	1～1424
CL412e M-84Pro-3	1～1248	1～2136
CL608e M-8460Se	1～1216	1～1424
CL612e	1～1984	1～2136
M-5900RVe M-8459Se	1～896	1～1424
M-10eDT/TT	1～3200	1～3600
M-8485Se	1～1024	1～1424
M-8490Se	1～1344	1～2136
M-84Pro-6	1～2496	1～4272

12.4 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Correction Pitch Specification

ESC+A3

HEX Code	ESC	A3	Parameter
	<1B>16	<41>16<33>16	VabbbbHcdddd
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is maintained.
	Valid Range within Items	The set parameter is valid until the next specification is done.
	Valid Range between Items	The set parameter is valid until the next specification is done.

[Function]

To specify the change of coordinate of the standard start point. Normally it is set at LCD advanced mode.

[Format]

<A3>VabbbbHcdddd

● Parameter

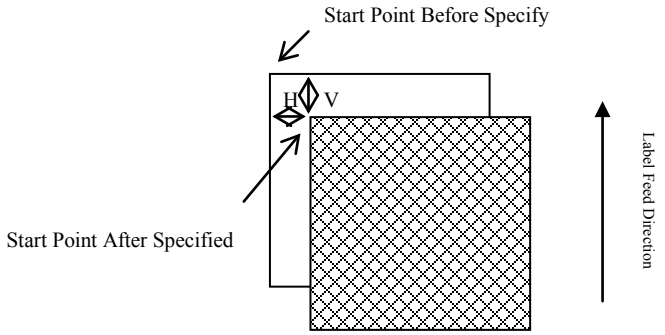
a	{V Correction Pitch Symbol}	(omittable)	=	+, -
b	{V Direction Correction (dot)}		=	refer to next page table
c	{H Correction Pitch Symbol}	(omittable)	=	+, -
d	{H Direction Correction (dot)}		=	refer to next page table

[Coding Example]

<A>

<A3>V10H10

<Z>



[Supplementary Explanation]

1.Perform correction pitch arbitrarily, be aware when printing cannot be performed due to exceeding print valid area.

2.Perform correction pitch by using multiple lable format, be aware when all of the label format will be performed correction pitch.

[Point]

1. When print correction pitch is performing at the LCD advanced mode, correction pitch is specified at the correction pitch specification <A3>, the value that is specified at the correction pitch specification <A3> will become valid.
2. Correction pitch value that is specified at the correction pitch specification <A3> will be registered at the LCD advanced mode.Therefore, correction pitch value that is specified at correction pitch specification <A3> will be maintained even if printer power is switched OFF.

[Specified Range]

Model	H Direction Correction (dot)	V Direction Correction (dot)
CL408e	1～832	1～1424
CL412e	1～1248	1～2136
M-84Pro-3	1～1344	1～2136
CL608e M-8460Se	1～1216	1～1424
CL612e	1～1984	1～2136
M-8400RVe M-84Pro-2 M-5900RVe M-8459Se	1～896	1～1424
M-10eDT/TT	1～3200	1～3600
M-8485Se	1～1024	1～1424
M-8490Se	1～1344	1～2136
M-84Pro-6	1～2688	1～4272

12.5 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Print Area Expand Specification

ESC+AX

HEX Code	ESC	AX	Parameter
	<1B>16	<41>16<58>16	Nil
Default Value	NIL		

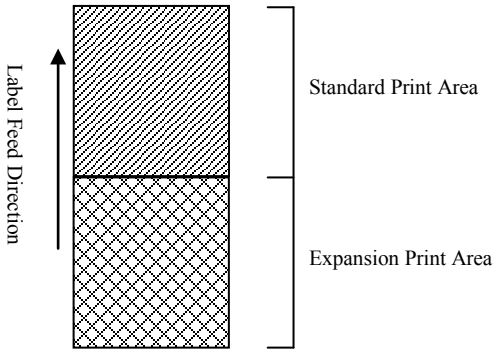
Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]
To expand print area at vertical size

[Format]
<AX>

[Coding Example]
<A>
<u><AX></u>
<Z>

	Model	Print Resolution (Head Density)	Max Print Area	
			Standard Vertical Length	Expand Vertical Length
1	CL408e	203dpi (8dot/mm)	178mm (1424dot)	356mm (2848dot)
2	CL412e	305dpi (12dot/mm)	178mm (2136dot)	356mm (4272dot)
3	CL608e	203dpi (8dot/mm)	236mm (1888dot)	472mm (3776dot)
4	CL612e	305dpi (12dot/mm)	178mm (2136dot)	356mm (4272dot)
5	M-84Pro -2	203dpi (8dot/mm)	178mm (1424dot)	356mm (2848dot)
6	M-84Pro -3	305dpi (12dot/mm)	178mm (2136dot)	356mm (4272dot)
7	M-84Pro -6	609dpi (24dot/mm)	178mm (4272dot)	356mm (8544dot)



[Supplementary Explanation]
1.To expand the print area with pitch direction
2.Describe the print area expand specification <AX> after the data send start specification <A>.
3.Print area expand specification <AX> returns to standard print area once printer power is switched OFF.

12.6 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Print Area Standard Specification

ESC+AR

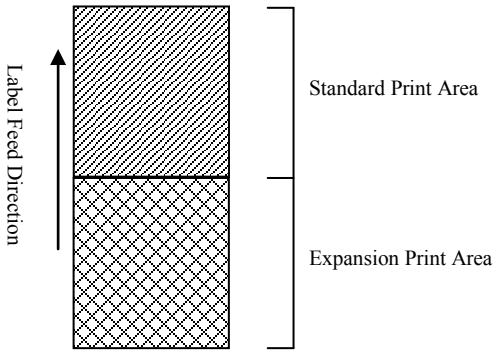
HEX Code	ESC	AR	Parameter
	<1B>16	<41>16<52>16	NIL
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]
To return the expanded print area by print area expand specification <AX>

[Format]
<AR>

[Coding Example]
<A>
<AR>
<Z>



	Model	Print Resolution (Head Density)	Max Print Area	
			Standard Vertical Length	Expand Vertical length
1	CL408e	203dpi (8dot/mm)	178mm (1424dot)	356mm (2848dot)
2	CL412e	305dpi (12dot/mm)	178mm (2136dot)	356mm (4272dot)
3	M-8400RVe	203dpi (8dot/mm)	178mm (1424dot)	356mm (2848dot)
4	CL608e	203dpi (8dot/mm)	236mm (1888dot)	472mm (3776dot)
5	CL612e	305dpi (12dot/mm)	178mm (2136dot)	356mm (4272dot)
6	M-5900RVe	203dpi (8dot/mm)	178mm (1424dot)	356mm (2848dot)
7	M-10e	305dpi (12dot/mm)	300mm (3600dot)	349mm (4188dot)
8	M-8485Se	203dpi (8dot/mm)	178mm (1424dot)	356mm (2848dot)
9	M-8490Se	305dpi (12dot/mm)	178mm (2136dot)	356mm (4272dot)
10	M-8460Se	203dpi (8dot/mm)	178mm (1424dot)	356mm (2848dot)
11	M-8459Se	203dpi (8dot/mm)	178mm (1424dot)	356mm (2848dot)
12	M-84Pro-2	203dpi (8dot/mm)	178mm (1424dot)	356mm (2848dot)
13	M-84Pro-3	305dpi (12dot/mm)	178mm (2136dot)	356mm (4272dot)
14	M-84Pro-6	609dpi (24dot/mm)	178mm (4272dot)	356mm (8544dot)

[Supplementary Explanation]
1.Describe the print area standard specification <AR> after the Data Send Start Specification <A>.

12.7 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Print End Position Specification

ESC+EP

HEX Code	ESC	EP	Parameter
	<1B>16	<45>16<50>16	NIL
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify label stop position at the sensor invalid mode

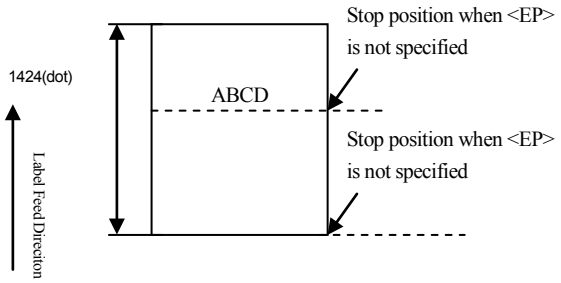
[Format]

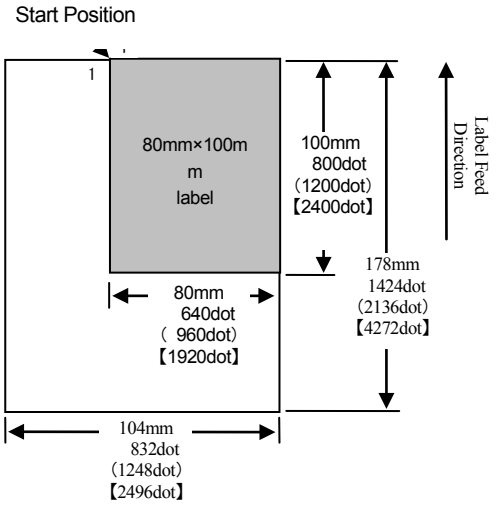
<EP>

[Coding Example]

<A>
<A1>14240832
<Z>
<A>
<V>100<H>200<P>2<L>0202<XM>ABCD
<Q>2
<EP>
<Z>

e.g.)





Value of （ ） is 12dot/mm
Value of【 】is 24dot/mm

[Supplementary Explanation]

1 By using sensor invalid mode.
2.Specify as a set with Label Size Specification <A1>.
3.When Label Size Specification <A1> is specified at Format Register Specification <YS>, Form Overlay Register Specification <&S>, when each Format Re-Call Specification <YR>, Form Overlay Re-Call Specification <&R> is specified, please specify the Print End Position Specification <EP>.

12.8 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Multiple Cut Specification

ESC+~(NULL)

HEX Code	ESC	~ (NULL)	Parameter
	<1B>16	<7E>16 (<00>16)	aaaa
Default Value	aaaa=1		

Valid Range & Terms of Command	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter becomes default value at next item <A>

[Function]

To specify during cutting with optional unit number of label

[Format]

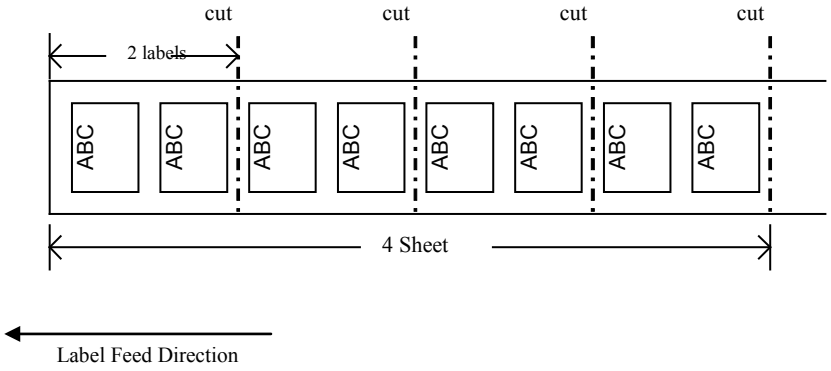
<~(NULL)>aaaa

● Parameter

a {Print Numbers until it is cut} = valid range : 0~9999

[Coding Example]

<A>
<V>100<H>200<P>2<L>0202<XM>ABC
<Q>4
<~>2
<Z>



[Supplementary Explanation]

1.Valid only for cutter specification models
2.Every 1 label will be cut when Multiple Cut Specification <~> is not specified at the Cut Motion Mode.
3.Do not perform cut when it is at a=0
4.The accumulation of print labels and cut numbers shall not exceed the maximum print numbers specification (999999).
5.Multiple Cut Specification <~> is specified after Print Numbers Specification <Q>. Print Number Specification <Q> specifies the sheet number to be cut.
6.It cannot be used with the combination of the Cut Unit Number Specification <~A>.

12.9 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Cut Unit Number Specification

ESC+~A

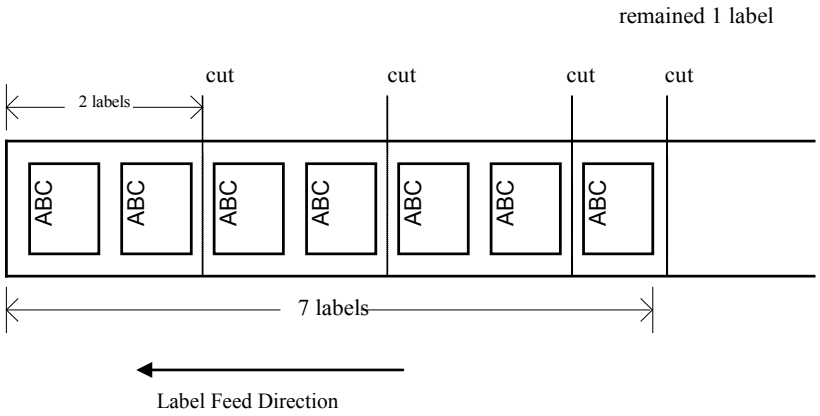
HEX Code	ESC	~A	Parameter
	<1B>16	<7E>16<41>16	aaaa
Default Value	aaaa=1		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter becomes default value at next item <A>

[Function]
To specify cut unit number

[Format]
<~A>aaaa
● Parameter
a {Cut Unit Number} = valid range : 0~9999

[Coding Example]
<A>
<V>100<H>200<P>2<L>0202<XM>ABC
<~A>2
<Q>7
<Z>



[Supplementary Explanation]
1.Valid only for cutter specification models.
2.Every 1 label will be cut when Multiple Cut Specification <A> is not specified at the Cut Motion Mode.
3.Do not perform cut when it is at a=0
4.Specify before Print Number Specification <Q>.
5.It cannot be used with the combination with Multiple Cut Specification <~>.

12.10 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Feed Cut Motion Specification

ESC+~B

HEX Code	ESC	~B	Parameter
	<1B>16	<7E>16<42>16	NIL
Default Value	NIL		

Valid Range & Terms of Command	When Power is Switched Off	The set command is not maintained
	Valid Range within Items	The set command is invalid
	Valid Range between Items	The set command is invalid

[Function]
To specify cut motion

[Format]
<~B>

[Coding Example]
<A>
<~B>
<Z>

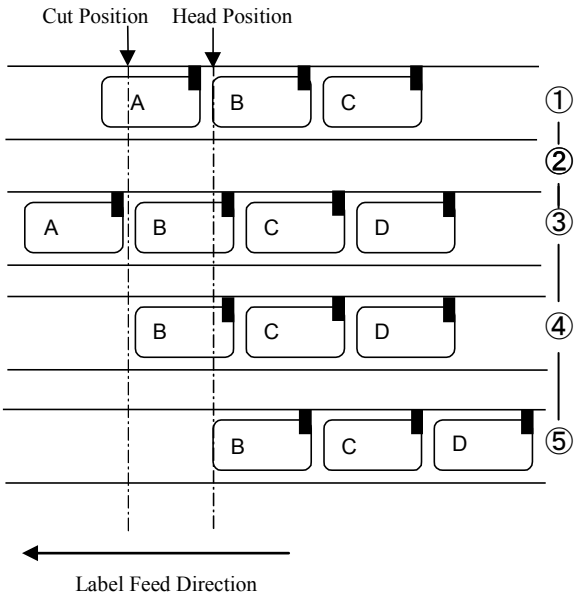
① Label Stop Position
A : Print End
B : No Print
C : No Print
D : No Print

② Receive Command

③ Feed to the Cut Position

④ Cut the label

⑤ Back-feed to the Print Head Position



[Supplementary Explanation]
1.Valid only for cutter specification models.
2.It is a command to feed and cut the label.
3.Divide and use this Cut Motion Specification <~B> from Data Send Start Specification <A> to Data Send End Specification <Z>.
4.Cut Motion Specification <~B> cannot be used with the combination of other commands.
5.Cut Motion Specification <~B> is valid only when it is at stop status without performing cut motion after print motion ended.

[Point]
1. This is a command to feed and cut the label when the it is left at the exit of the printer by Cut Number Label Specification <~A>0 and Multiple Cut Specification <~>0.

12.11 System

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Clear Specification

ESC+*

HEX Code	ESC	*	Parameter
	<1B>16	<2A>16	a
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify the clear of content that is registered in the internal memory

[Format]

<*>a

● Parameter

a {Clear Item} = No Specification : 1 item reception buffer, edit buffer (cannot re-print)
Multiple receive, receive buffer, edit buffer (JOB clear during printing)
T : Foreign Character Register Area
& : Form Overlay
X : All Clear
(Receive Buffer / Edit Buffer / Foreign Character Register / Form Overlay)
* No JOB clear during printing

[Coding Example 1] Clear the Receive Buffer / Edit Buffer

<A>
<*>
<Z>

[Coding Example 2] All Clear

<A>
<*>X
<Z>

[Coding Example 3] Foreign Character Area Clear

<A>
<*>T
<Z>

[Supplementary Explanation]

1.Use Clear specification <*> with the mark off of Data Send Start Specification <A> ~ Data Send End Specification <Z>.
2.By sending all clear of < a=X > Clear Specification <*>, all data that is sent before Clear Specification <*> will be cleared. But, analyzed end data will not be cleared during printing. For foreign character register / form overlay, they will also be cleared.

[Point]

1.If Clear Specification <*> is sent, send the next data after longer than 100ms has passed.
2.Print motion will not stop if it is specified during print motion.

12.12 System

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

OffLine Specification

ESC+@

HEX Code	ESC	@	Parameter
	<1B>16	<40>16	,a~a
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To set Online printer to Offline

[Function]
<@>,a~a
● Parameter
a {LCD Display Message} (omittable)

[Coding Example]
<A>
<@>
<Z>

[Supplementary Explanation]
1.Offline Specification <@> is used with the mark off of Data Send Start Specification <A> ~ Data Send End Specification <Z>.
2.LCD Display Message can be specified to maximum 32 characters.
3.Set printer receive mode to 1 item receive mode.

12.13 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Re-print Specification

ESC+C

HEX Code	ESC	C	Parameter
	<1B>16	<43>16	NIL
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify re-print of content that is printed previously

[Format]
<C>

[Coding Example]
<A>
<C>
<Z>

[Supplementary Explanation]
1.As printer's content will be cleared if its power is switched off, re-print will not be performed even if Re-print Specification <C> is specified.

[Point]
1.If format that includes field of Sequential Specification <F> is to be re-printed, printing will be similar to the previous label.

12.14 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Printer Motion Register Specification

ESC+PG

HEX Code	ESC	PG	Parameter
	<1B>16	<50>16<47>16	abcdefghhijklmnooppqqrrstuvwxy
Default Value	Refer to next page table onwards		

Valid Range & Terms of Command	When Power is Switched Off	The set parameter is maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]

To register printer motion into EEPROM

[Format]

<PG>abcdefghhijklmnooppqqrrstuvwxy

● Parameter

Parameter content can be referred to next page table onwards

[Coding Example]

<A>

<PG><00 00 02 00 00 00 00 41 01 00 00 00 00 00 00 0C 80 03 40 00 00 00 00 00 00 00 00 00 00 00>16

<Z>

Parameter value becomes hexadecimal <00>16<00>16<02>16……<00>16

[Supplementary Explanation]

1.It is not necessary to specify Printer Motion Register Specification <PG> for normal label print.

2.Motion setting that is specified at Printer Motion Register Specification <PG> can be maintained even if printer power is switched off.

[Point]

1.Although Printer Motion Register Specification <PG> is not used, setting can be performed from LCD advanced mode, service mode.

『CL408e,CL412e,M-8400RVe,CL608e,CL612e,M-5900RVe,M-8485Se,M-8490Se,M-8460Se,M-8459Se,M-84Pro-2,M-84Pro-3,M-84Pro-6』

No	Item	Content
a	Not in use	00H Fixed
b	Not in use	00H Fixed
c	Print Speed CL408e, CL412e Default Value : 02H（4 inch/sec） Range : 2, 3, 4, 5, 6 inch/sec M-8400RVe Default Value : 04H（6 inch/sec） Range : 2, 4, 6, 8, 10 inch/sec CL608e、CL612e Default Value : 04H（6 inch/sec） Range : 4, 6, 8 inch/sec M-5900RVe Default Value : 01H（3 inch/sec） Range : 2, 3, 4, 5, 6 inch/sec M-8485Se Default Value : 06H（8 inch/sec） Range : 4, 6, 8, 10, 12 inch/sec M-8490Se Default Value : 04H（6 inch/sec） Range : 4, 6, 8 inch/sec M-8460Se Default Value : 04H（6 inch/sec） Range : 4, 6, 8 inch/sec M-8459Se Default Value : 02H（4 inch/sec） Range : 2, 3, 4, 5 inch/sec M-84Pro-2 Default Value : 04H（6 inch/sec） Range : 2, 4, 6, 8, 10 inch/sec M-84Pro-3 Default Value : 04H（6 inch/sec） Range : 2, 4, 6, 8 inch/sec M-84Pro-6 Default Value : 01H（3 inch/sec） Range : 2, 3, 4, 5, 6 inch/sec	00H 2 inch/sec 01H 3 inch/sec 02H 4 inch/sec 03H 5 inch/sec 04H 6 inch/sec 05H 7 inch/sec 06H 8 inch/sec 07H 9 inch/sec 08H 10 inch/sec 09H 11 inch/sec 0AH 12 inch/sec
d	Not in use	00H Fixed
e	Not in use	00H Fixed
f	Not in use	00H Fixed
g	Not in use	00H Fixed
h	Print Darkness Specification （Default Value：41H）	41H A 42H B （Not in use）valid for CL412e, M-8400RVe, M-84Pro-6 43H C （Not in use）valid for M-84Pro-6 44H D （Not in use） 45H E （Not in use） 46H F （Not in use）
h	Print Darkness Level CL408e/412e, M-8400RVe, M-5900RVe M-8459Se, M-84Pro-2/3/6 Default Value：03H（Density Level 3） Range ：Density Level 1, 2, 3, 4, 5 CL608e/612e, M-8485Se/90Se/60Se Default Value ：02H（Density Level 2） Range ：Density Level 1, 2, 3	01H Density Level 1 02H Density Level 2 03H Density Level 3 04H Density Level 4 05H Density Level 5
i	Not in use	00H Fixed

『CL408e,CL412e,M-8400RVe,CL608e,CL612e,M-5900RVe,M-8485Se,M-8490Se,M-8460Se,M-8459Se,M-84Pro-2,M-84Pro-3,M-84Pro-6』（Con't）

No	Item	Content
j	0 Slash （Default Value：01H）	00H Invalid 01H Valid
k	Kanji Code （Default Value：00H）	00H JIS Code 01H Shift JIS Code
l	Not in use	00H Fixed
m	Default Feed （Default Value：00H）	00H Invalid 01H Valid
n	Proportional Pitch （Default Value：01H）	00H Fixed Pitch 01H Proportional Pitch
o	Vertical Label Size (dot)	CL408e ：「01H～590H」（1～1424） CL412e ：「01H～858H」（1～2136） CL608e ：「01H～590H」（1～1424） CL612e ：「01H～858H」（1～2136） M-8400RVe ：「01H～590H」（1～1424） M-5900RVe ：「01H～590H」（1～1424） M-8485Se ：「01H～590H」（1～1424） M-8490Se ：「01H～858H」（1～2136） M-8460Se ：「01H～590H」（1～1424） M-8459Se ：「01H～590H」（1～1424） M-84Pro-2 ：「01H～590H」（1～1424） M-84Pro-3 ：「01H～858H」（1～2136） M-84Pro-6 ：「01H～10B0H」（1～4272）
p	Horizontal Size (dot)	CL408e ：「01H～340H」（1～832） CL412e ：「01H～4E0H」（1～1248） CL608e ：「01H～4C0H」（1～1216） CL612e ：「01H～7C0H」（1～1984） M-8400RVe ：「01H～340H」（1～832） M-5900RVe ：「01H～380H」（1～896） M-8485Se ：「01H～400H」（1～1024） M-8490Se ：「01H～540H」（1～1344） M-8460Se ：「01H～4C0H」（1～1216） M-8459Se ：「01H～380H」（1～896） M-84Pro-2 ：「01H～340H」（1～832） M-84Pro-3 ：「01H～4E0H」（1～1248） M-84Pro-6 ：「01H～9C0H」（1～2496）
q	Vertical Correction Pitch Value (dot)	「00H～318H」（0～792） 「FFFFH～FCE8H」（-1～-792）
r	Horizontal Correction Pitch Value (dot)	「00H～318H」（0～792） 「FFFFH～FCE8H」（-1～-792）
s	Not in use	00H Fixed
t	Not in use	00H Fixed
u	Not in use	00H Fixed
v	Not in use	00H Fixed
w	Not in use	00H Fixed
x	Not in use	00H Fixed
y	Buzzer Sound Setting （Default Value：00H）	00H YES 01H NIL

12.15 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Printer Motion Register Specification

ESC+PC

HEX Code	ESC	PC	Parameter
	<1B>16	<50>16<43>16	1)「a, b, c, d, ⋯y, z」, 2)「aa, b」
Default Value	Refer to next page table onwards		

Valid Range & Terms of Command	When Power is Switched Off	The set parameter is maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]

To register printer motion into EEPROM

[Format 1]when perform setting of all items

<PC>a,b,c,d,e,f,g,h,i1,i2,j,k,l,m,n,o,pppp,qqqq,rrrr,ssss,t,u,v,w,x,y,z

● Parameter

a {Setting Item Number} = F Setting of all items

b⋯z {Setting Content} = Content of parameter can be referred to next page table onwards

[Format 2]when perform setting of specified items

<PC>aa,b

● Parameter

a {Setting Item Number} = valid range : 1~26

b {Setting Content} = Content of parameter can be referred to next page table onwards

[Coding Example 1] Set all items

<A>

<PC>F,,,2,,,,,A,4,,1,0,,1,1,3000,2400,,,,,,,,1

<Z>

[Coding Example 2] Set all items

<A>

<PC>26,1

<Z>

[Supplementary Explanation]

1.Normally it is set at LCD advanced mode, service mode.

2.The motion setting that is specified at Printer Motion Register Specification <PC> can be maintained even if printer power is switched OFF.

3.When set all items, part of or entireof the parameter input can be omitted. However, comma cannot be omitted.

The omitted setting becomes default (remain as present)

『CL408e,CL412e,M-8400RVe,CL608e,CL612e,M-5900RVe,M-8485Se,M-8490Se,M-8460Se,M-8459Se,M-84Pro-2,M-84Pro-3,M-84Pro-6』

No	Item No	Item	Content
b	1	Not in use	0 Fixed
c	2	Not in use	0 Fixed
d	3	Print Speed CL408e, CL412e Default Value：2（4 inch/sec） Range : 2, 3, 4, 5, 6 inch/sec M-8400RVe Default Value：4（6 inch/sec） Range : 2, 4, 6, 8, 10 inch/sec CL608e, CL612e Default Value：4（6 inch/sec） Range : 4, 6, 8 inch/sec M-5900RVe Default Value：1（3 inch/sec） Range : 2, 3, 4, 5, 6 inch/sec M-8485Se Default Value：6（8 inch/sec） Range : 4, 6, 8, 10, 12 inch/sec M-8490Se Default Value：4（6 inch/sec） Range : 4, 6, 8 inch/sec M-8460Se Default Value：4（6 inch/sec） Range : 4, 6, 8 inch/sec M-8459Se Default Value：2（4 inch/sec） Range : 2, 3, 4, 5 inch/sec M-84Pro-2 Default Value ：4（6 inch/sec） Range : 2, 4, 6, 8, 10 inch/sec M-84Pro-3 Default Value ：4（6 inch/sec） Range : 2, 4, 6, 8 inch/sec M-84Pro-6 Default Value ：1（3 inch/sec） Range : 2, 3, 4, 5, 6 inch/sec	0 2 inch/sec 1 3 inch/sec 2 4 inch/sec 3 5 inch/sec 4 6 inch/sec 5 7 inch/sec 6 8 inch/sec 7 9 inch/sec 8 10 inch/sec 9 11 inch/sec A 12 inch/sec
e	4	Not in use	0 Fixed
f	5	Not in use	0 Fixed
g	6	Not in use	0 Fixed
h	7	Not in use	0 Fixed
i1	8	Print Darkness Specification （Default Value：A）	A B （Not in use）valid in CL412e, M-8400RVe, M-84Pro-6 only C （Not in use）valid in M-84Pro-6 only D （Not in use） E （Not in use） F （Not in use）
i2	9	Print Darkness Level CL408e/412e, M-8400RVe, M-5900RVe, M-8459Se, M-84Pro-2/3/6 Default Value：3（Density Level 3） Range ：Density Level 1, 2, 3, 4, 5 CL608e/612e、M-8485Se/90Se/60Se Default Value：2（Density Level2） Range ：Density Level 1, 2, 3	1 Density Level 1 2 Density Level 2 3 Density Level 3 4 Density Level 4 5 Density Level 5

No	Item No	Item	Content
j	10	Not in use	0 Fixed
k	11	0 Slash （Default Value：1）	0 Invalid 1 Valid
l	12	Kanji Code （Default Value：0）	0 JIS Code 1 Shift JIS Code
m	13	Not in use	0 Fixed
n	14	Default Feed （Default Value：0）	0 Invalid 1 Valid
o	15	Proportional Pitch （Default Value：1）	0 Fixed Pitch 1 Proportional Pitch
p	16	Vertical Label Size (dot)	CL408e : 1～1424 CL412e : 1～2136 CL608e : 1～1424 CL612e : 1～2136 M-8400RVe : 1～1424 M-5900RVe : 1～1424 M-8485Se : 1～1424 M-8490Se : 1～2136 M-8460Se : 1～1424 M-8459Se : 1～1424 M-84Pro-2 : 1～1424 M-84Pro-3 : 1～2136 M-84Pro-6 : 1～4272
q	17	Horizontal Label Size (dot)	CL408e : 1～832 CL412e : 1～1248 CL608e : 1～1216 CL612e : 1～1984 M-8400RVe : 1～832 M-5900RVe : 1～896 M-8485Se : 1～1024 M-8490Se : 1～1344 M-8460Se : 1～1216 M-8459Se : 1～896 M-84Pro-2 : 1～832 M-84Pro-3 : 1～1248 M-84Pro-6 : 1～2496
r	18	Vertical Correction Pitch Value (dot)	-792～792
s	19	Horizontal Correciton Pitch Value (dot)	-792～792
t	20	Not in use	0 Fixed
u	21	Not in use	0 Fixed
v	22	Not in use	0 Fixed
w	23	Not in use	0 Fixed
x	24	Not in use	0 Fixed
y	25	Not in use	0 Fixed
z	26	Buzzer Sound Setting （Default Value：0）	0 YES 1 NIL

12.16 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Automatic Line Feed Specification

ESC+E

HEX Code	ESC	E	Parameter
	<1B>16	<45>16	aaa
Default Value	aaa=0		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify line pitch and new line

[Format]

<E>aaa

● Parameter

a {Line Pitch Width} = valid range : 0~999 (dot)

[Coding Example]

<A>
<E>10
<V>100<H>200<P>2<L>0304<XM>ABCDE+CR
FGHIJ+CR
<Q>2
<Z>

[Supplementary Explanation]

1.When CR(0DH)is specified, a line feed is given to only the specified pitch.
2.Rotate Specification <%> is valid.
3.Line pitch changes is valid from Automatic Line Feed Specification <E> among items.
4.Specify Automatic Line Feed Specification <E> before specifying the repeat printing of a line.
5.Auto line feed is performed by continuing CR(0DH)specification, however, the beginning print position of new line is determined by value of Print Horizontal Position Specification <H> after pitch of Automatic Line Feed Specification <E> and Automatic Line Feed Specification<E>.
However, when multiple Print Horizontal Position Specification <H> is specified after this command, the position to return to CR(0DH)becomes the last position of Print Horizontal Position Specification <H>.

12.17 System

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

User Download Specification

ESC+LD

HEX Code	ESC	LD	Parameter
	<1B>16	<4C>16<44>16	, a, b, c, d, e, f, g, h, i, j
Default Value	Refer to the following table		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]

To set the availability of Auto Online, 0 Slash and optional Protocol and Euro Code

[Format]

<LD>,a,b,c,d,e,f,g,h,i,j

● Parameter

Parameter content is indicated as follow

Function	Parameter	Content	Default	
			Standard	Non-Standard
Protocol Code	a(HEX)	STX	02H	{(7BH)
	b(HEX)	ETX	03H	}(7DH)
	c(HEX)	ESC	1BH	^(5EH)
	d(HEX)	ENQ	05H	@(40H)
	e(HEX)	CAN	18H	!(21H)
	f(HEX)	NULL	00H	~(7EH)
	g(HEX)	Offline	40H	](5DH)
Auto Online	h(ASCII)	0:YES 1:NO	0(30H)	0(30H)
0 Slash	i(ASCII)	0:YES 1:NO	0(30H)	0(30H)
Euro Code	j(HEX)	D5H	D5H	D5H

[Coding Example]

<A>

<LD>,{,},%,#,&,=,~,0,0,<FF>16

<Z>

[Supplementary Explanation]

1.User Download Specification <LD> is used by mark off the Data Send Start Specification <A> ~ Data Send End Specification <Z>.

2.User Download Specification <LD> is valid only at Protocol Register Mode. Details of Protocol Code Register Mode can be referred to Operation Specification.

3.Part of or entire parameter input can be omitted by comma. However, comma cannot be omitted. The omitted setting becomes default status (similar as present).

4.When the number of comma inside of parameter is not at 10, and when specified code is found at other control command and print data, motion is not guaranteed

12.18 System

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Memory Area Enlarge Specification

ESC+EX

HEX Code	ESC	EX	Parameter
	<1B>16	<45>16<58>16	a
Default Value	a=0		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]

To specify enlargement of Print Area (vertical direction)

[Format]

<EX>a

● Parameter

a {Slot Number Specification} = 0 : Internal Memory

[Coding Example]

<A>

<EX>0

<Z>

[Supplementary Explanation]

1.It cannot be used together with Internal Memory Register Data (Form Overlay Register, Foreign Character Register).

2.When specify slot at Memory Area Enlarge Specification <EX>, specify it first after printer power is switched ON.

3.Standard Print Area Specification <AR> and Enlargement Print Area Specification <AX> becomes invalid.

4.If 1 is specified at parameter a, print area will be enlarged at the internal memory.

Model	Print Resolution (Head Density)	Standard	Standard Print Area <AR>	Enlargement Print Area <AX>	Standard Enlargement <EX>0
CL408e M-8400RVe CL608e M-5900RVe	203dpi (8dot/mm)	1424dot (178mm)	1424dot (178mm)	2848dot (356mm)	9999dot (1249mm)
CL412e CL612e	305dpi (12dot/mm)	2136dot (178mm)	2136dot (178mm)	4272dot (356mm)	9999dot (833mm)
M-10e	305dpi (12dot/mm)	3600dot (300mm)	3600dot (300mm)	4188dot (349mm)	5040dot (420mm)
M-8485Se M-8460Se M-8459Se	203dpi (8dot/mm)	1424dot (178mm)	1424dot (178mm)	2848dot (356mm)	9999dot (1249mm)
M-8490Se	305dpi (12dot/mm)	2136dot (178mm)	2136dot (178mm)	4272dot (356mm)	9999dot (833mm)
M-84Pro-2	203dpi (8dot/mm)	1424dot (178mm)	1424dot (178mm)	2848dot (356mm)	9999dot (1249mm)
M-84Pro-3	305dpi (12dot/mm)	2136dot (178mm)	2136dot (178mm)	4272dot (356mm)	9999dot (833mm)
M-84Pro-6	609dpi (24dot/mm)	4272dot (178mm)	4272dot (178mm)	8544dot (356mm)	

Data inside of( )convert the dot (dot) to mm(mm), round off to decimal point.

12.19 System

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Kanji Mincho Style Specification

ESC+KM

HEX Code	ESC	KM	Parameter
	<1B>16	<4B>16<4D>16	NIL
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]
To specify kanji character to Mincho Style

[Format]
<KM>

[Coding Example]
<A>
<KM>
<V>100<H>100<P>2<L>0202
<K1>H82508A94816A83548367815B
<KG>
<V>200<H>100<P>2<L>0202
<K1>H82508A94816A83548367815B
<Q>2
<Z>

[Supplementary Explanation]
1. This command is to print kanji character to the “Mincho Style”.
2. Use Kanji Gothic Style Specification <KG> to specify kanji character to “Gothic Style”.
3. Kanji Mincho Style Specification <KM> and Kanji Gothic Style Specification <KG> can be used for multiple specification within 1 item.
4. This command can be used only for installed optional Kanji ROM.

12.20 System

Printer							
	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Kanji Gothic Style Specification

ESC+KG

HEX Code	ESC	KG	Parameter
	<1B>16	<4B>16<47>16	NIL
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]
To specify kanji character to Gothic Style

[Format]
<KG>

[Coding Example]
<A>
<KM>
<V>100<H>100<P>2<L>0202
<K1>H82508A94816A83548367815B
<KG>
<V>200<H>100<P>2<L>0202
<K1>H82508A94816A83548367815B
<Q>2
<Z>

[Supplementary Explanation]
1.This command is to print kanji character to “Gothic Style”.
2.Use Kanji Mincho Style Specification <KM> to specify kanji character to “Mincho Style”.
3.Kanji Minch Style Specification <KM> and Kanji Gochic Style Specification <KG> can be used for multiple specification within 1 item.
4.This command can be used only for installed optional kanji ROM.

13. Memory Card Command

13.1 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Card Slot Specification	ESC+CC

HEX Code	ESC	CC	Parameter
	<1B>16	<43>16<43>16	a
Default Value	a=1		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is done.
	Valid Range between Items	The set parameter is valid until the next specification is done.

[Function]
To specify card slot number

[Format]
<CC>a
● Parameter
Card slot specification change by setting “Card Slot 1” from LCD card mode.

Set{MEM SELECT(CC1)}to{CARD}
a {slot number} 1 : card slot
2 : flash ROM

Set{MEM SELECT(CC1)}to{MEMORY}
a {slot number} 1 : flash ROM
2 : card slot

[Coding Exaple]
<A>
<CC>1
<GI>H003003001FF000000~000000FF
<Z>

[Supplementary Explanation]
1.Card slot specification shall be specified when command is specified against memory card. However, when it is Expandable Memory Specification <EX>, card slot specification does not required.
2.Read / Write error occurs if card is not inserted.
3.Be aware of the time consuming on card access when{Flash ROM}card is used.

13.2 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Memory Card Default Specification	ESC+BJF

HEX Code	ESC	BJF	Parameter
	<1B>16	<42>16<4A>16<45>16	aaaaaaaa
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify memory card format (default)

[Format]
<BJF>aaaaaaaa
● Parameter
a {User ID} = specify alphanumeric / symbol at maximum 8 byte

[Coding Example]
<A>
<CC>1
<u><BJF>satocard</u>
<Z>

[Supplementary Explanation]
1.Optional memory card is required for Card Format Specification <BJF>.
2.Slot number that is registered at Card Slot Specification <CC> shall be specified before the Card Format Specification <BJF>.
3.Card Format Specification <BJF> is a command to format the memory card, cannot be used together with other commands.
4.When memory card is protected, card error occurs without formatting. When wrong format is performed, there is no guaranteed on deleted content.

13.3 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Memory Card Status Print Specification — ESC+BJS

HEX Code	ESC	BJS	Parameter
	<1B>16	<42>16<4A>16<53>16	NIL
Default Value	NIL		

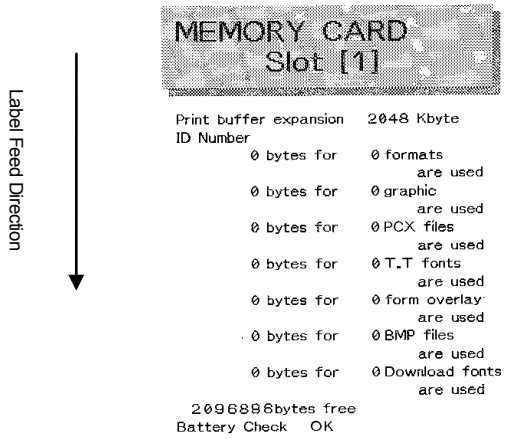
Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To print memory card status

[Format]
<BJS>

[Coding Example]
<A>
<CC>1
<BJS>
<Z>

[Supplementary Explanation]
1.Memory Card Status Print Specification <BJS> is a command to print memory card status, cannot be used together with other commands.
2.Memory card status printing can be confirmed by the following label size.
Label Width 68mm, Label Size Length 90mm
（Models Support：CL408e, CL412e, M-8400RVe, CL608e, CL612e, M-5900RVe, M-8485Se, M-8490Se, M-8460Se, M-8459Se, M-84Pro-2, M-84Pro-3, M-84Pro-6）
Label Width 128mm, Label Size Length 90mm
(Models Support:MT/MR110w)



13.4 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Form Overlay Register Specification

ESC+&S

HEX Code	ESC	&S	Parameter
	$<1B>_{16}$	$<26>_{16}<53>_{16}$	,aa,bbbb,cccc
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The registered data becomes valid
	Valid Range within Items	The registered data is valid until the next specification is made.
	Valid Range between Items	The registered data is valid until the next specification is made.

[Function]

To specify fixed print content to be registered to the memory card.

[Format]

<&S>,aa,bbbb,cccc

● Parameter

a {Register number} = valid range : 1~99

b {Horizontal Direction Size Specification of Window} = valid range : refer to the following page table (omittable)

c {Vertical Direction Size Specification of Window = valid range : refer to the following page table (omittable)

[Coding Example]

```
<A>
<V>100<H>100<XM>MODEL
<CC>1
<&S>,1
<Z>
```

[Supplementary Explanation]

1.Slot number that is used at Card Slot Specification <CC> shall be specified before Form Overlay Register Specification <&S>.
2.The registered format shall be mark off with Data Send Start Specification <A> ~ Data Send End Specification <Z>.
3.Same register number will not be registered.
4.Graphic Print Specification <G>, BMP File Print Specification <GM>, PCX File Print Specification <GP> data can be registered.
5.Although Form Overlay Register Specification <&S< can be registered to maximum 99 cases, still it depends on memory card.
6.Data that is registered by Form Overlay Register Specification <&S> can be cleared by using Clear Specification <*>R.
7.Form Overlay Register Specification <&S> cannot be used without memory card.

[Valid Command]

Print Position	<V>	<H>								
Modification	<WD>	<FW>	<(>	<RF>						
Font	<XU>	<XS>	<XM>	<XB>	<XL>					
									<OA>	<OB>
	<RD>	<$=>	<K1>*1	<K2>*1	<K8>*1	<K9>*1	<k1>*1	<k2>*1	<k8>*1	<k9>*1
Barcode	<B>	<BC>	<BG>	<BI>	<BP>	<D>	<D><d>	<BD>		
2-D Code	<BK>	<BQ>	<BV>	<BX>	<VC>					
Graphic	<G>	<GM>	<GP>							

*1 Requires optional Kanji ROM.

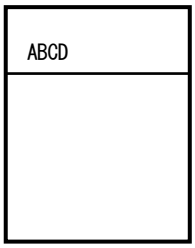
Normally it is used only as number registration, by specifying the size of Window's vertical as well as horizontal direction, enables it to move by Print Vertical Position Specification <V> and Print Horizontal Position Specification <H> during re-call. If register area exceed the print area because of the moving during re-call, the exceeded portion will not be printed out.

The moving details are shown as the following:

(1)Normal Specification (to register)

```
<A>
<V>100<H>100<P>2<L>0202
<XM>ABCD
<V>60<H>60
<FW>0808V800H400
<V>320<H>60
<FW>04H400
<CC>1
<&S>,1
<Z>
```

Register image



(2)When print specification is found after <&S>

```
<A>
<V>100<H>100<P>2<L>0202
<XM>ABCD
<V>60<H>60
<FW>0808V800H400
<V>320<H>60
<FW>04H400
<CC>1
<&S>,1
<V>200<H>100<OB>12345
<Z>
```

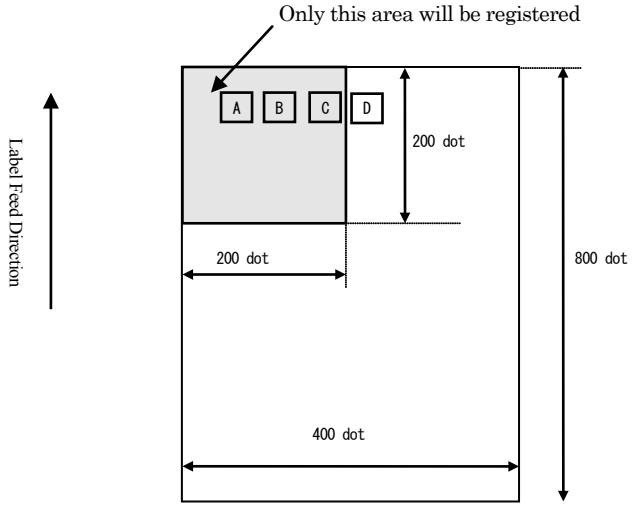
Printing which is done before specifying <&S> will be registered as Form Overlay.

← Print

(3)When Window size is specified

Label Size Specification <A1> 800400, Window Horizontal Direction Size{200}, Vertical Direction Size{200}

```
<A>
<A1>800400
<V>100<H>00<P>2<L>0202
<XM>ABCD
<CC>1
<&S>,1,200,200
<Z>
```



[Size Specification Range of Window Horizontal Direction]

Model	Valid Range (dot)	Model	Valid Range (dot)
CL408e	1～832	CL412e	1～1248
M-8400RVe	1～832	CL612e	1～1984
CL608e	1～1216		
M-5900RVe	1～896	M-8490Se	1～1344
M-8485Se	1～1024	M-84Pro-3	1～1248
M-8460Se	1～1216	M-84Pro-6	1～2496
M-8459Se	1～896		
M-84Pro-2	1～832		

[Size Specification Range of Window Vertical Direction]

Model	Valid Range (dot)	Model	Valid Range (dot)
CL408e	1～1424	CL412e	1～2136
M-8400RVe	1～1424	CL612e	1～2136
CL608e	1～1424		
M-5900RVe	1～1424	M-8490Se	1～2136
M-8485Se	1～1424	M-84Pro-3	1～2136
M-8460Se	1～1424	M-84Pro-6	1～4272
M-8459Se	1～1424		
M-84Pro-2	1～1424		

13.5 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Form Overlay Re-Call Specification

ESC+&R

HEX Code	ESC	&R	Parameter
	<1B>16	<26>16<52>16	,aa
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify re-call content which is registered in memory card by Form Overlay Register Specification <&S>.

[Format]

<&R>,aa

- Parameter

a {Register Number} = valid range : 1~99

[Coding Example]

<A>
<CC>1
<u><&R>,1</u>
<Z>

[Supplementary Explanation]

1.Before the Form Overlay Re-Call Specification <&R>, slot number from Card Slot Specification <CC> shall be specified.
2.Form Overlay Re-Call Specification <&R> can perform printing with the combination of different register number.
3.When register number is not specified, the function of Form Overlay Re-Call Specification <&R> becomes invalid.
4.It will become read / write error if non-registered number is specified.
5.When non-specified window is registered, Print Vertical Position Specification <V> and Print Horizontal Position Specification <H> will be ignored and re-call the drawing area from the beginning (V1, H1).
6.When Window is specified and registered, it is valid to move by specifying Print Vertical Position Specification <V> and Print Horizontal Position Specification <H>. However, if it exceeds print area, the exceeded area will not be printed out.
7.Form Overlay Re-Call Specification <&R> cannot be used without the memory card.

13.6 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Format Register Specification

ESC+YS

HEX Code	ESC	YS	Parameter
	<1B>16	<59>16<53>16	,aaa
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]
To register the print format

[Format]
<YS>,aaa
● Parameter
a {Format Register No.} = valid range : 1~999

[Coding Example]
<A>
<CC>1
<YS>,1
</N>,3,3
<%>0<V>100<H>200<P>2<L>0101<XM>ABC
<Z>

[Supplementary Explanation]
1.If there is multiple registration, mark off the 1 format with Data Send Start Specification <A> ~ Data Send End Specification <Z>.
2.When Format Register Specification <YS> is used, the Card Slot Specification <CC> shall be specified before this command.
3.Use it with Field Register Specification </N> as a pair.
4.Error occurs if the registered number is registered again, the content of it will be printed out and continue its process.

[Registerable Command]

Print Position	<V>	<H>								
Modification	<WD>	<FW>	<(>	<RF>						
Font	<XU>	<XS>	<XM>	<XB>	<XL>					
									<OA>	<OB>
	<RD>	<$=>	<K1>*1	<K2>*1	<K8>*1	<K9>*1	<k1>*1	<k2>*1	<k8>*1	<k9>*1
Barcode	<B>	<BC>	<BG>	<BI>	<BP>	<D>	<D><d>	<BD>		
2-D Code	<BK>	<BQ>	<BV>	<BX>	<VC>					
Graphic	<G>	<GM>	<GP>							

*1 Optional Kanji ROM is required.

[Point]

1.Details of Format Registration

Enables command group to be registered into the memory card (oprion). Once it is registered, specification thereafter the same command group can be avoided. And printdata can be changed and printed out when performing format re-call. By doing this we call this command group registration function as Format Registration.

1 item is composed with multiple command group which is required in the printing. This kind of command group is addressed as Field. Format is formed based on multiple fields.

Command for Format Registration is explained as following.

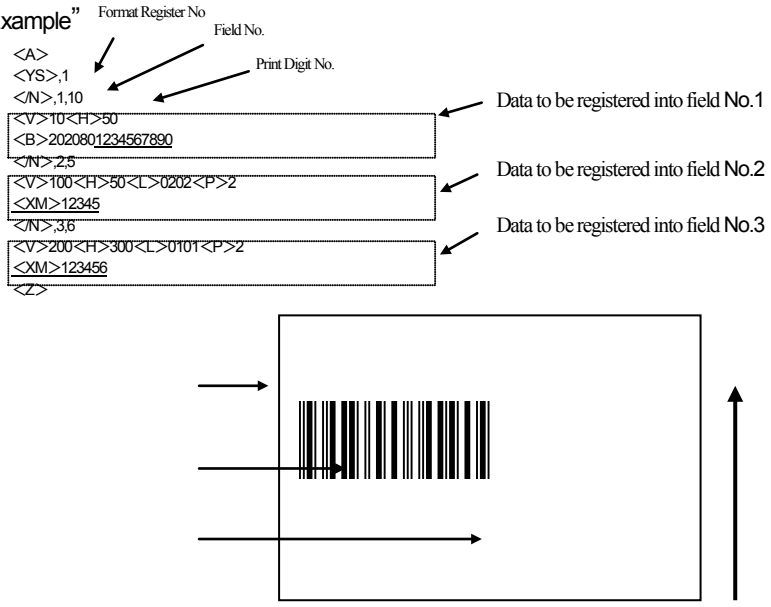
Format is set as 1 format by specifying Data Send Start Specification <A> ~ Data Send End Specification <Z>, specify the Format Registration Specification <YS> right

after the Data Send Start Specification <A>. Specify Registration Format Registration No. 1 ~ 999 at the Format Registration Specification <YS>.

After Format Registration Specification <YS>, specifies the Field No. and Registration Print Digit No. at the Field Registration Specification </N>.

Specify print position, print character type and barcode etc after the Field No. and Print Digit No.

"Register Example"



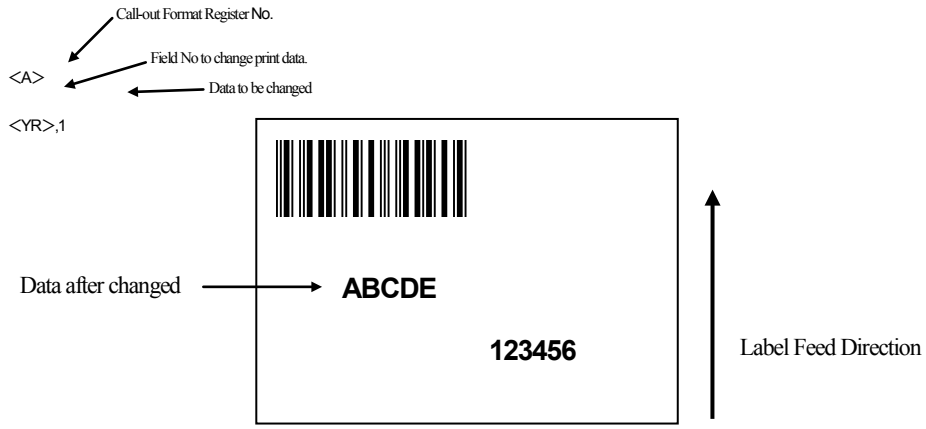
The following explains how to re-call the registered print content based on the Format Registration.

Specify the after registered Format Registration No. 1 ~ 999 from Format Re-call Specification <YR>.

Changes of print data specify Field No. to be changed by Field Print Specification </D>, and then continue specifying after changed print data.

From above, part of _____ of registration example is valid for change.

{Call-out Example}



Below shows command for invalid registration

Category	Command	Command Name
Control	<Q>	Print Number Specification
	<ID>	JOB ID No Specification
	<WK>	JOB Name Specification
Modification	<&>	Form Overlay Register Specification
	<F>	Sequential Number Specification
	<0>	Part Editing Function Specification
	<RM>	Mirror Rotate Specification
Font	<T1>	16X16 dot Foreign Character Register Specification
	<T2>	24X24 dot Foreign Character Register Specification
Barcode	<BT>	Barcode Ratio Register Specification
2-D Code	<BQ>	QR Code
	<VC>	Veri Code
	<BV>	MAXI Code
	<BK>	PDF417
	<BX>	Data Matrix
Graphic	<G>	Graphic Print Specification
	<GM>	BMP File Print Specification
	<GP>	PCX File Print Specification
System	<CS>	Print Speed Specification
	<#E>	Print Darkness Specification
	<~>	Multiple Cut Specification
	<C>	Re-print Specification
	<*>	Clear Specification
	<@>	Offline Specification
	<OL>	Online Specification
	<EX>	Expandable Memory Specification
Memory Card	<BJF>	Memory Card Format Specification
	<GI>	Graphic Register Specification
	<GT>	BMP File Register Specification
	<PI>	PCX File Register Specification
	</D>	Field Print Specification
	<BJS>	Memory Card Status Print Specification

13.7 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Field Register Specification

ESC+/N

HEX Code	ESC	/N	Parameter
	<1B>16	<2F>16<4E>16	,aa,bb
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]

To register item inside of the field at the Format Register Specification <YS>

[Format]

</N>,aa,bb

● Parameter

a {Field No.} = valid range : 1~99

b {Print Digit Number} = valid range : 1~99

[Coding Example]

```
<A>
<CC>1
<YS>,01
</N>,1,3
<%>0<V>100<H>200<P>2<L>0101<XM>ABC
</N>,2,5
<%>0<V>200<H>200<P>2<L>0101<OA>12345
</N>,3,8
<%>0<V>300<H>40<B>40208049123456
<Z>
```

[SupplementaryExplanation]

1.Specify the field No. with the order start from the small value.

2.Print Vertical Position Specificatin<V> and Print Horizontal Position Specification <H> shall be specified at every field. It will become default value if none of the specification is made.

3.Regarding the digit number specification while printing foreign characters

When specify foreign character code “H”, a foreign character needs 4 digits, therefore 3 foreign characters equals to 12 digits.

When foreign character code “B” is specified, a foreign character needs 2 digits, therefore 3 foreign characters equals to 6 digits.

4.Specify the register digit numbers of fixed field out of value 00.

5.Use it with Format Register Specification <YS> as a pair.

6.Due to the limitation of memory quantity, it may not be able to register 99 items.

[Change Print Specification Command]

Font	<XU>	<XS>	<XM>	<XB>	<XL>					
									<OA>	<OB>
	<RD>	<$=>	<K1>*1	<K2>*1	<K8>*1	<K9>*1	<k1>*1	<k2>*1	<k8>*1	<k9>*1
Barcode	<B>	<BC>	<BG>	<BI>	<BP>	<D>	<D><d>	<BD>	<BT>	<BW>

*1 Optional kanji ROM is required.

13.8 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Format Re-Call Specification

ESC+YR

HEX Code	ESC	YR	Parameter
	<1B>16	<59>16<52>16	,aaa
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]

To re-call and print out of the format which is registered at the Format Register Specification <YS>

[Format]

<YR>,aaa

● Parameter

a {Format Register No.} = valid range : 1~999

[Coding Example]

```
<A>
<CC>1
<YR>,01
</D>,1,DEF
</D>,2,78901
</D>,3,49000238
<Q>2
<Z>
```

[Supplementary Explanation]

1. Format Re-Call Specification <YR> cannot re-call the multiple format in between of Data Send Start Specification <A> ~ Data Send End Specification <Z>.
2. Use it with Field Print Specification </D> as a pair.

13.9 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Field Print Specification

ESC+/D

HEX Code	ESC	/D	Parameter
	<1B>16	<2F>16<44>16	,aa,n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]

To call-out items which are registered at the Field Register Specification </N> and then specify the data.

[Format]

</D>,aa,n~n

● Parameter

a {Field No.} = valid range : 1~99

n {Data} = change data

[Coding Example]

<A>
<CC>1
<YR>,01
</D>,1,DEF
</D>,2,78901
</D>,3,49000238
<Q>2
<Z>

[Supplementary Explanation]

1.Print digit number is valid at the specified range of Field Register Specification </N>.

2.If digit number specified at Field Print Specification </D> is much more than that from Field Register Specification </N>, the specified print digit is valid for printing.

3.Use it with the Format Re-Call Specification <YR> as a pair.

13.10 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Graphic Register Specification

ESC+GI

HEX Code	ESC	GI	Parameter
	<1B>16	<47>16<49>16	abbbcccdddn~n
Default Value	NIL		

Valid Range & Terms of Command	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify registration of graphic pattern data

[Format]

<GI>abbbcccdddn~n

● Parameter

a {HEX or Binary Send Selection} = H : HEX Data
B : Binary Data

HEX Data (divide 8 bit data into 4 bit data, output as a HEX code that supports ASCII)
Binary Data (output 8 bit data as 1 character data)

b {specify graphic area of horizontal direction with byte unit} = refer to the following table

c {specify graphic area of vertical direction with byte unit} = refer to the following table

d {register number}(used as identity number during call-out) = valid range : 1~999

n {Data} = Graphic Data

[Coding Example]

<A>
<CC>1
<GI>H003003001n~n
<Z>

[Supplementary Explanation]

1.Specify the register data only during registration.
2.Registration changes required to re-register once it is cleared from Clear Command <*>.
3.Data which is registered by Graphic Register Specification <GI> is printed by using Graphic Re-Call Specificaiton <GR>.
4.Normal print may not be performed if it is not registered properly. Data format can be referred to Graphic Print Specification <G>.
5.Error occurs if re-register with a registered number. The re-registered content will be printed out and continue with the next process.
6.When Graphic Register Specification <GI> is used, Card Slot Specificatin <CC> shall be specified before this command.

[Specified Range]

Model	Horizontal Direction Max Byte	Vertical Direction Max Byte
CL408e、M-8400RVe、M-84Pro-2	104	178
CL412e、M-84Pro-3	156	267
CL608e、M-8460Se	152	178
CL612e	248	267
M-5900RVe、M-8459Se	112	178
M-10eDT/TT	400	450
M-8485Se	128	178
M-8490Se	168	267
M-84Pro-6	312	534

13.11 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Graphic Re-Call Specification

ESC+GR

HEX Code	ESC	GR	Parameter
	<1B>16	<47>16<52>16	aaa
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify data re-call print that is registered at Graphic Register Specification <GI>

[Format]

<GR>aaa

● Parameter

a {Register No} = valid range : 1~999

[Coding Example]

<A>
<V>100<H>100
<CC>1
<GR>1
<Q>1
<Z>

[Supplementary Explanation]

1.Start Point Correction Specification <A3> is ignore and not corrected.
2.Rotate Specification <%> and Expandable Specification <L> is valid against re-call graphic.
3.When Graphic Re-Call Specification <GR> is used, the Card Slot Specification <CC> shall be specified before Graphic Re-Call Specification <GR>.

13.12 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

BMP File Register Specification

ESC+GT

HEX Code	ESC	GT	Parameter
	<1B>16	<47>16<54>16	aaa,bbbbb,n~n
Default Value	NIL		

Valid Range & Terms of Command	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify registration of BMP file that is created at Windows paint brush etc.

[Format]

<GT>aaa,bbbbb,n~n

● Parameter

a {Register Number} = valid range : 1~999

b {Total Byte Number of BMP File} = valid range : 1~99999

* Specify the file size of BMP file for total byte size

n {Data} = BMP File Data

* Send the data by binary data (output 8 bit as 1 character)

[Coding Example]

<A>
<CC>1
<u><GT>001,12345,n~n</u>
<Z>

[Supplementary Explanation]

1.Send the data by binary data (output 8 bit as 1 font data) (BMP file size is the total byte number while BMP file data is the data)

2.In BMP file, the first 62 bytes of data are treated as a header and the following data is image data.

3.If the total byte of BMP file is inconsistent with transferred data, it may due to the motion abnormality.

4.Total byte size is the file size displayed by property etc.

5. BMP file is valid only at black/white mode. The BMP file of color mode becomes command error and does not perform printing. It also doest not support compressed type of BMP file. Confirm that the extension is at “BMP” file before printing.

6.When BMP File Register Specification <GT> is used, Card Slot Specification <CC> shall be specified before BMP File Register Specification <GT>.

13.13 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

BMP File Re-Call Specification

ESC+GC

HEX Code	ESC	GC	Parameter
	$<1B>_{16}$	$<47>_{16}<43>_{16}$	aaa
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify data re-call printing that is registered by BMP File Register Specification <GT>.

[Format]
<GC>aaa
● Parameter
a {Register Number} = valid range : 1~999

[Coding Example]
<A>
<V>100<H>100
<CC>1
<GC>001
<Q>2
<Z>

[Supplementary Explanation]
1.Rotate Specification <%> and Expandable Specification <L> is valid against re-call data.
2.When BMP File Re-Call Specification <GC> is used, Card Slot Specification <CC> shall be specified before BMP File Re-Call Specification <GC>.

13.14 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

PCX File Register Specification

ESC+PI

HEX Code	ESC	PI	Parameter
	<1B>16	<50>16<49>16	aaa,bbbbb,n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify registration of PCX file that is created at the Windows paint brush etc.

[Format]

<PI>aaa,bbbbb,n~n

● Parameter

a {Register No} = valid range : 1~999

b {Total byte size of PCX file} = valid range : 1~99999

* Specify file size of PCX file for total byte size

n {Data} = PCX file data

* Send the data with binary data (output 8 bit as 1 character data)

[Coding Example]

<A>
<CC>1
<PI>001,12345,n~n
<Z>

[Supplementary Explanation]

1. Send the data by binary data (output 8 bit as 1 font data) (File size of PCX file becomes the total byte size while PCX file data becomes the data)
2. In a PCX file, the first 128 byte of data are treated as a header and the following data is an image data.
3. If the total byte size of PCX file is inconsistent with transferred data, it may due to the motion abnormality.
4. The total byte size is the byte size displayed by property etc.
5. PCX file is valid for black/white mode only. PCX file of color mode becomes command error and does not perform printing. It doesn't support compressed type of PCX file. Confirm that the extension is the "PCX" file before printing.
6. When PCX File Register Specification <PI> is used, Card Slot Specification <CC> shall be specified before PCX File Register Specification <PI>.

13.15 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

PCX File Re-Call Specification

ESC+PY

HEX Code	ESC	PY	Parameter
	<1B>16	<50>16<59>16	aaa
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify data re-call printing that is registered at the PCX File Register Specification <PI>.

[Format]
<PY>aaa
● Parameter
a {Register Number} = valid range : 1~999

[Coding Example]
<A>
<V>100<H>100
<CC>1
<PY>001
<Q>2
<Z>

[Supplementary Explanation]
1.Rotate Specification <%> and Expandable Specification <L> is valid against re-call data.
2.When PCX File Re-Call Specification <PY> is used, Card Slot Specification <CC> shall be specified before PCX File Re-Call Specification <PY>.

13.16 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Clear Specification (memory card) — ESC+*

HEX Code	ESC	*	Parameter
	<1B>16	<2A>16	a,bbb
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To clear content registered inside of the memory card (option)

[Format]
<*>a,bbb
● Parameter
a {Clear Item} = G : SATO Graphic
(clear graphic that is registered at the Graphic Register Specification <GI>)
P : PCX File
(clear PCX file that is registered at the Format Register Specification <PI>)
M : BMP File
(clear BMP file that is registered at the Format Register Specification <GT>)
F : Format
(clear format that is registered at the Format Register Specification <YS>)
O : True Type Font
(clear True Type Font that is registered at the True Type Font Register Specification <BJ>)
R : Form Overlay
(clear Form Overlay that is registered at the Form Overlay Register Specification <&S>)
b {Register No} = valid range : 000~999 (omittable) True Type Font
001~999 (omittable) True Type Font excluded
(when register no is omitted, the entire registered data will be cleared)

[Coding Example 1] clear 001 of SATO Graphic
<A>
<CC1>
<*>G,001
<Z>

[Coding Example 2] clear 002 of PCX File
<A>
<CC1>
<*>P,002
<Z>

[Coding Example 3] clear the entire Form Overlay
<A>
<CC1>
<*>R
<Z>

[Supplementary Explanation]
1.Clear Specification <*> is used with the mark off of Data Send Start Specification <A> ~ Data Send End Specificaiton <Z>.
2.Slot number that is used at Card Slot Specification shall be specified before Clear Specification <*>

[Point]
1.Use Format Specification <BJF> for clearing memory card.

13.17 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

True Type Font Register Specification

ESC+BJ
ESC+BJD

HEX Code	ESC	BJD	Parameter
	<1B>16	<42>16<4A>16<44>16	(a···ab··b
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]
To specify True Type Font specification

[Format]
<BJ>(a···ab···b
<BJD>c···cdddde···e
<BJ>)

● Parameter

a	{Font Description}	40 byte font specification
b	{Date}	10 byte date data
c	{Memory Off-set}	5 byte memory off-set (hex specification)
d	{Data Byte Size}	valid range = 0001~2000
e	{Font Data for Downloading}	

[Coding Example]

```
<A>
<CC>1
<V>100<H>200<CC>1
<BJ>(abcdefghijkabcdefghijkabcdefghijkabcdefghijk29-08-2000
<BJD>00000002203000F002B00120000000100150100000FDFF00000000
<BJ>)
<Z>
```

[Supplementary Explanation]

1.Optional memory card is required for this command.
2.Slot number that is registered at the Card Slot Specification <CC> shall be specified before this command.

13.18 Memory Card

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

True Type Font Re-Call Specification

ESC+BJT

HEX Code	ESC	BJT	Parameter
	<1B>16	<42>16<4A>16<54>16	,aa,bb,cc,dd,ee,ffff,n~n
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify True Type Font call-out

[Format]

<BJT>,aa,bb,cc,dd,ee,ffff,n~n

● Parameter

a	{Font ID}	valid range : 00~99
b	{Horizontal Ratio}	valid range : 01~12
c	{Vertical Ratio}	valid range : 01~12
d	{Character Pitch}	valid range : 01~99
e	{Back-up}	valid range : 00 fixed
f	{Print Character Number}	valid range : 0000~9999
n	{Data}	

[Coding Example]

<A>
<CC>1
<V>100<H>200<CC>1
<BJT>,01,02,02,01,00,0004SATO
<Q>
<Z>

[Supplementary Explanation]

1.Optional memory card is required if this command is used.

2.Slot number that is registered at the Card Slot Specification <CC> shall be specified before this command.

14. Calendar Command

14.1 Calendar

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Calendar Setting Specification	ESC+WT

HEX Code	ESC	WT	Parameter
	<1B>16	<57>16<54>16	aabbccddee
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter is valid until the next specification is made.

[Function]

To specify calendar setting

[Format]

<WT>aabbccddee

- Parameter

a	{Year Specification}	valid range	:	00~99
b	{Month Specification}	valid range	:	01~12
c	{Day Specification}	valid range	:	01~31
d	{Hour Specification}	valid range	:	00~23
e	{Minute Specification}	valid range	:	00~59

[Coding Example] 1st January 2020 1:13 00sec

<A>

<WT>2001011313

<Z>

[Supplementary Explanation]

1.Optional Calendar IC (a standard for S Series) is required for this command. However, its function becomes invalid if IC is not available.

14.2 Calendar

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Calendar Calculation Specification

ESC+WP

HEX Code	ESC	WP	Parameter
	<1B>16	<57>16<50>16	abbb
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter is valid until the next specification is made.
	Valid Range between Items	The set parameter becomes invalid.

[Function]

To specify calendar calculation

[Format]

<WP>abbb

● Parameter

a {Year/Month/Day/Hour Specification}

Y (year)
M (month)
D (day)
h (hour)
W (week number)

b {calculation value of year/month/day/hour specification}

valid range of specified Y : 0~9
valid range of specified M : 00~99
valid range of specified D : 000~999
valid range of specified h : 000~999
valid range of specified W : 00~99

[Coding Example] example of print specification from current date to 3 months later

```
<A>
<WP>M03
<V>100<H>200
<XM><WA>DD/MM/YY
<Q>2
<Z>
```

[Supplementary Explanation]

1.Optinal calendar IC (a standard for S Series) is required for this command. However, its function becomes invalid if IC is not available

2.This command calculates a specific area only for specified data like year, month, day and hour. The period from current date until 3 months later is valid for specification.

14.3 Calendar

Printer	CL408e/412e	M-8400RVe	CL608e/612e	M-5900RVe	M-10e		
	M-8485Se/90Se/60Se/59Se		M-84Pro-2/3/6				

Calendar Print Specification	ESC+WA

HEX Code	ESC	WA	Parameter
	<1B>16	<57>16<41>16	
Default Value	NIL		

Valid Range & Terms of Command		
	When Power is Switched Off	The set parameter is not maintained
	Valid Range within Items	The set parameter becomes invalid
	Valid Range between Items	The set parameter becomes invalid

[Function]

To specify calendar printing

[Format]

<WP> Parameter

● Parameter

a {Print Content Specification}

YYYY(year)	valid range	:	1981~2080
YY(year)	valid range	:	00~91
MM(month)	valid range	:	01~12
DD(day)	valid range	:	01~31
HH(hour)	valid range	:	00~11
hh(hour)	valid range	:	00~23
mm(min)	valid range	:	00~59
ss(sec)	valid range	:	00~59
TT(am/pm)	valid range	:	AM/PM
JJJ(Julian Date)	valid range	:	001~366
WW(week)	valid range	:	00~53
ww(week)	valid range	:	01~54

[Coding Example] example of print specification from current date to 3 months later

<A>
<WP>M03
<V>100<H>200
<XM>**<WA>DD/MM/YYhh:mm**
<Q>2
<Z>

[Supplementary Explanation]

1.Optional Calendar IC (a standard for S Series) is required for this command. However, its function becomes invalid if IC is not available.
2.When it is specified at QTY=100, perform real time printing for each label.
3.There is 6 places to be specified for calendar print command within 1 form.
4.The maximum of calendar print data is 16 characters.



Extensive contact information of worldwide SATO operations can be found on the Internet at **http://www.satoworldwide.com**

SATO
DCS & Labelling Worldwide