Table of Contents

Command List

Type	Command	Name
Print Command	LF	Print and line feed
	CR	Print and carriage return
	HT	JMP to the next TAB position
	ESC D n	Set horizontal tab positions
	ESC J n	Print and Feed n dots paper
	ESC d n	Print and Feed n lines
	ESC = n	Toggle the printer online or offline
Line spacing Command	ESC 2	Select default line spacing
	ESC 3 n	Set line spacing
	ESC a n	Select justification
	ESC SO	Select Double Width mode
	ESC DC4	Disable Double Width mode
	GS L nL nH	Set the left blank margin with dots
	ESC $	Set absolute print position
	ESC B n	Set Left Space
Character Command	ESC ! n	Select print mode(s)
	GS ! n	Set or Cancle the double width and height
	GS B	Turn white/black reverse printing mode
	ESC V n	Turn 90°clockwise rotation mode on/off
	ESC v n	Transmit paper sensor status
	ESC G n	Turn on/off double-strike mode
	ESC E n	Set or Cancle bold font
	ESC SP n	Set the space between chars
	ESC { n	Turn upside-down printing mode on/off
	ESC - n	Set the underline dots(0,1,2)
	ESC % n	Select/Cancel user-defined characters
	FS &	Select Chinese mode
	FS .	Select character mode
	FS!	Set print mode for Kanji characters
	ESC &	Define user-defined characters
	ESC ? n	Cancle user-defined characters
	ESC R n	Select and internation character set
	ESC t n	Select character code table
Bit Image Command	ESC *	Select bit-image mode
	GS *	Define downloaded bit image
	GS /	Print downloaded bit image
	GS v	Print the bitmap with width and height
	FS p n m	Print NV bitmap

	FS q n	Define NV bitmap
Init Command	ESC @	Initialize printer
Status Command	GS r n	Transmit status
	GS a n	Enable/Disable ASB
Bar Code Command	GS H	Select printing position of human readable characters
	GS h	Set bar code height
	GS w	Set bar code width
	GS k	Print bar code
	GS x	Set barcode printing left space
miscellaneous function commands	ESC 7 n1 n2 n3	Setting Control Parameter Command
	ESC 8 n1 n2	Sleep parameter
	ESC 9 n	Select Chinese code format
	DC2 T	Printing test page
	FS t n	Select Time out (for CB105B)
New command	ESC C n	Set BM Max (For BM)
	GS FF	Feed marked paper to print starting position (For BM)
	ESC i	Cut Paper (For cut)
	ESC m	Partial Cut Paper (For cut)
	GS V	Select cut mode and cut paper (For cut)
	ESC p	Generate pulse (For drawer)
	ESC u	Transmit peripheral device status (For drawer)
	ESC c 5	Enable/disable panel buttons (For button)
	GS (F	Set adjustment values(s) (For 701BM)
	FS C	Start receive buffer count (For cb65c)
	FS S	Send receive buffer count(For cb65c)
	FS s	save print parameter (for XBLY)
	FS d	Load default leaving factory set (for XBLY)

Control Commands

HT

[Name] Horizontal tab

[Format] ASCII HT

Hex 09

Decimal 9

[Description] Moves the print position to the next horizontal tab position.

[Notes]

- This command is ignored unless the next horizontal tab position has been set.

- If the next horizontal tab position exceeds the printing area, the printer sets the printing position to [printing area width + 1].
- Horizontal tab positions are set with **ESC D**.
- If this command is received when the printing position is at [printing area width + 1], the printer executes print buffer-full printing of the current line and horizontal tab processing from the beginning of the next line.

[Reference] **ESC D**

LF

[Name] Print and line feed
[Format] ASCII LF
Hex 0A
Decimal 10
[Description] Prints the data in the print buffer and feeds one line, based on the cu rrent line spacing.
[Note] This command sets the print position to the beginning of the line.
[Reference] **ESC 2**, **ESC 3**

CR

[Name] Print and carriage return
[Format] ASCII CR
Hex 0D
Decimal 13
[Description] When automatic line feed is enabled, this command functions the same as **LF**; when automatic line feed is disabled, this command is ignored.
[Notes] • This command line feed is ignored with a serial interface model.
• This command is set by Memory Switch 1-5 in a parallel interface model.
• Sets the print starting position to the beginning of the line.
[Reference] **LF**

ESC SP n

[Name] Set right-side character spacing

[Format] ASCII ESC SP n
Hex 1B 20 n
Decimal 27 32 n

[Range] $0 \le n \le 255$

[Description] Sets the character spacing for the right side of the character to [n×0.125 mm (n×0.0049")].

[Notes]
- The right-side character spacing for double-width mode is twice the normal value. When characters are enlarged, the right-side character spacing is n times normal value.
- This command does not affect the setting of Kanji characters.
- This command sets values independently in standard mode.

[Default] n = 0

ESC ! n

[Name] Select print mode(s)

[Format] ASCII ESC ! n
Hex 1B 21 n
Decimal 27 33 n

[Range] $0 \le n \le 255$

[Description] Selects print mode(s) using n as follows:

Bit	Off/On	Hex	Decimal	Function
0	Off	00	0	Character Font A (12×24).
	On	01	1	Character Font B (9×17).
1	Off	00	0	Turn white/black reverse printing mode not selected.
	On	02	2	Turn white/black reverse printing mode selected.
2	Off	00	0	Turn on/off upside-down printing mode not selected.
	On	04	4	Turn on/off upside-down printing mode selected.
3	Off	00	0	Emphasized mode not selected.
	On	08	8	Emphasized mode selected.
4	Off	00	0	Double-height mode not selected.
	On	10	16	Double-height mode selected.
5	Off	00	0	Double-width mode not selected.
	On	20	32	Double-width mode selected.
6	Off	00	0	Turn Deleteline mode on/off not selected.

	On	40	64	Turn Deleteline mode on/off selected.
7	-	-	-	Undefined.

ESC B n

[Name] Set left space

[Format] ASCII ESC B n

Hex 1B 42 n

Decimal 27 66 n

[Range] Default is 0

0 ⩽ n ⩽ 47

ESC $ nL nH

[Name] Set absolute print position

[Format] ASCII ESC $ nL nH

Hex 1B 24 nL nH

Decimal 27 36 nL nH

[Range] 0 ≤ nL ≤ 255

0 ≤ nH ≤ 255

[Description] Sets the distance from the beginning of the line to the position at which subsequent characters are to be printed.

- The distance from the beginning of the line to the print position is [(nL + nH×256) ×0.125 mm].

[Notes]

- Settings outside the specified printable area are ignored.
- In standard mode, the horizontal motion unit (x) is used.

ESC % n

[Name] Select/cancel user-defined character set

[Format] ASCII ESC % n

Hex 1B 25 n

Decimal 27 37 n

[Range] 0 ≤ n ≤ 255

[Description] Selects or cancels the user-defined character set.

- When the LSB of n is 0, the user-defined character set is canceled.
- When the LSB of n is 1, the user-defined character set is selected.

[Notes]
- When the user-defined character set is canceled, the built-in character set is automatically selected.
- n is available only for the least significant bit.

[Default] n = 0

[Reference] **ESC &**, **ESC ?**

ESC & y c1 c2 [x1 d1...d(y × x1)]...[xk d1...d(y × xk)]

[Name] Define user-defined characters

[Format]

ASCII	ESC	&	y	c1	c2 [x1 d1...d(y × x1)]...[xk d1...d(y × xk)]
Hex	1B	26	y	c1	c2 [x1 d1...d(y × x1)]...[xk d1...d(y × xk)]
Decimal	27	38	y	c1	c2 [x1 d1...d(y × x1)]...[xk d1...d(y × xk)]

[Range] y = 3

$32 \le c1 \le c2 \le 126$

$0 \le x \le 12$ (when Font A (12×24) is selected)

$0 \le d1 \ldots d(y \times xk) \le 255$

[Description] Defines user-defined characters.
- y specifies the number of bytes in the vertical direction.
- c1 specifies the beginning character code for the definition, and c2 specifies the final code.
- x specifies the number of dots in the horizontal direction.

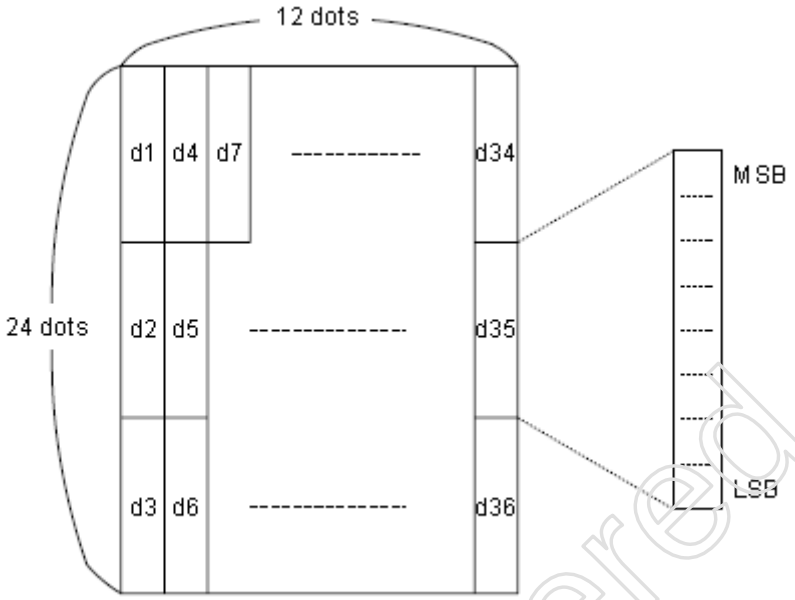
[Notes]
- The allowable character code range is from ASCII code <20>H to <7E>H (95 characters).
- It is possible to define multiple characters for consecutive character codes. If only one character is desired, use c1 = c2.
- d is the dot data for the characters. The dot pattern is in the horizontal direction from the left side. Any remaining dots on the right side are blank.
- The data to define user-defined characters is (y×x) bytes.
- Set a corresponding bit to 1 to print a dot or 0 not to print a dot.
- This command can define different user-defined character patterns for each font. To select a font, use **ESC !**
- User-defined characters and a downloaded bit image cannot be defined simultaneously. When this command is executed, the downloaded bit image is cleared.
- The user-defined character definition is cleared when:
  1) **ESC** @ is executed.
  2) **GS** * is executed.
  3) **ESC ?** is executed.
  4) The power is turned off.

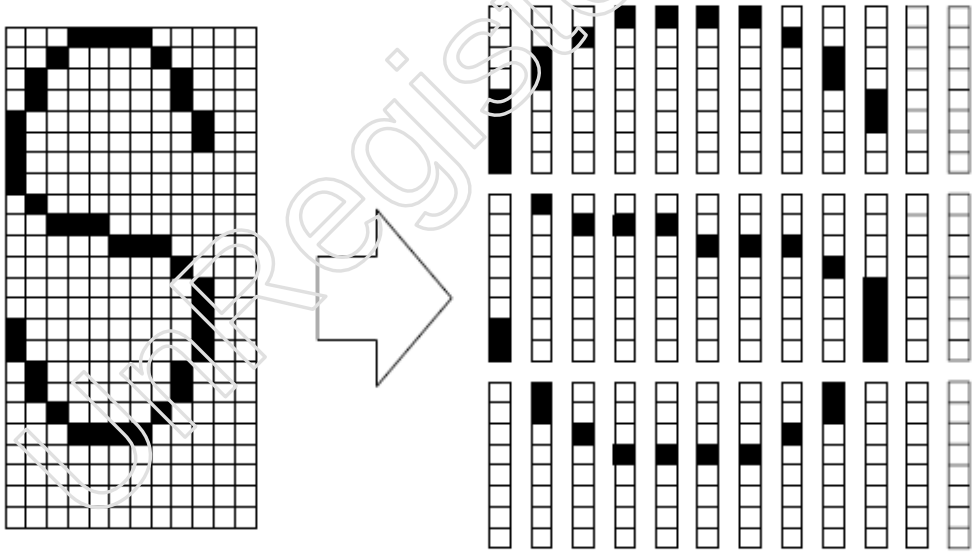
[Default] The internal character set

[Reference] **ESC %**, **ESC ?**

[Example]

- When Font A (12× 24) is selected.





d1= <0F>H d4 = <30>H d7 = <40>H . . . .

d2 = <03>H d5 = <80>H d8 = <40>H . . . .

d3 = <00>H d6 = <00>H d9 = <20>H . . . .

ESC * m nL nH d1...dk

[Name] Select bit-image mode

[Format] ASCII ESC * m nL nH d1...dk

Hex 1B 2A m n_L n_H d1...dk

Decimal 27 42 m n_L n_H d1...dk

[Range] m = 0, 1, 32, 33

$0 \le n_L \le 255$

$0 \le n_H \le 3$

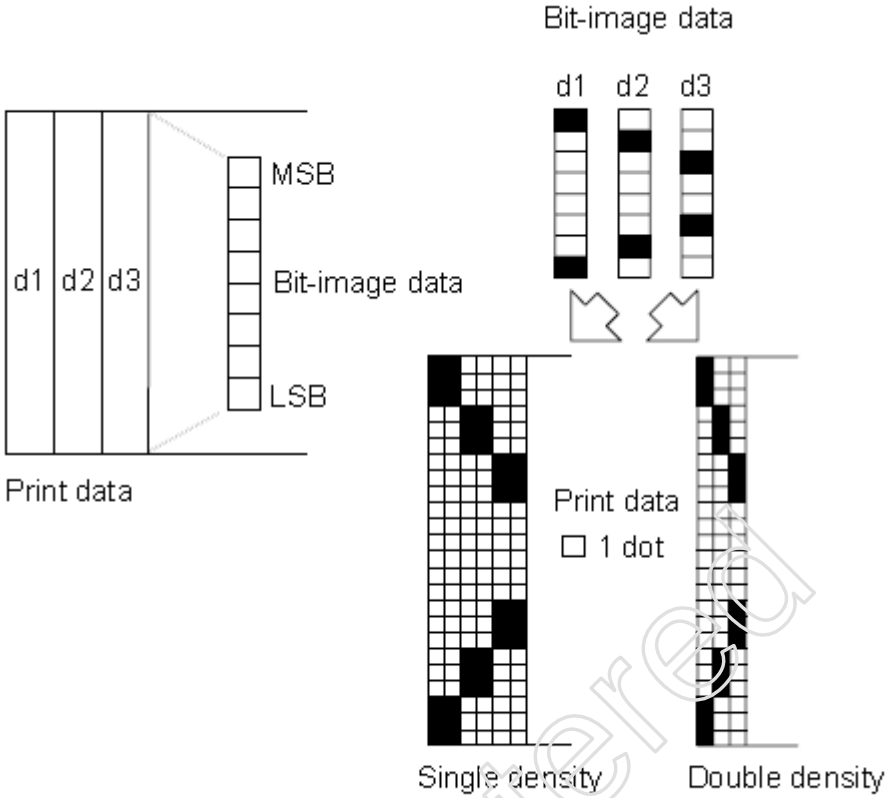
$0 \le d \le 255$

[Description] Selects a bit-image mode using m for the number of dots specified by n_L and n_H, as follows:

m	Mode	Vertical Direction		Horizontal Direction	
		Number of Dots	Dot Density	Dot Density	Number of Data (K)
0	8-dot single-density	8	67.7 dpi	101.6 dpi	$n_L + n_H \times 256$
1	8-dot double-density	8	67.7 dpi	203.2 dpi	$n_L + n_H \times 256$
32	24-dot single-density	24	203.2 dpi	101.6 dpi	$(n_L + n_H \times 256) \times 3$
33	24-dot double-density	24	203.2 dpi	203.2 dpi	$(n_L + n_H \times 256) \times 3$

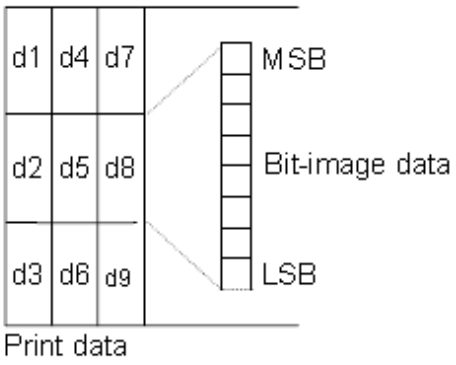
[Notes]

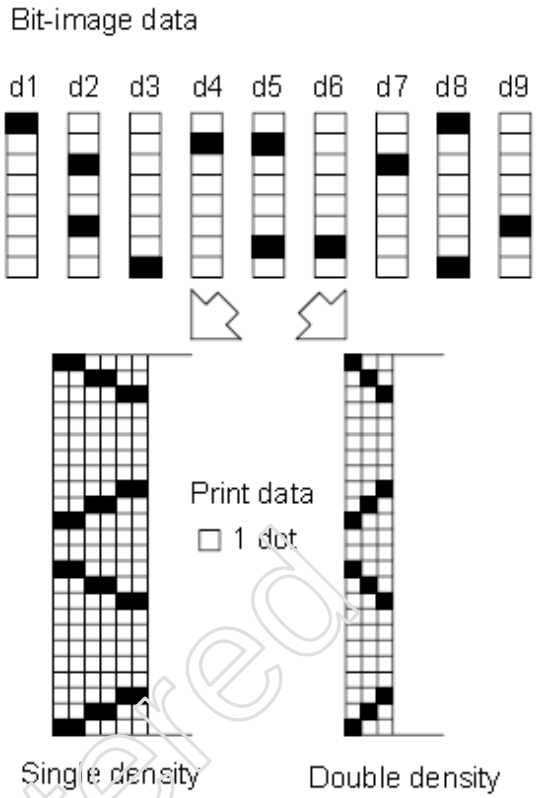
- If the value of m is out of the specified range, n_L and the data following are processed as normal data.
- The n_L and n_H indicate the number of dots in the bit image in the horizontal direction. The number of dots is calculated by $n_L + n_H \times 256$.
- If the bit-image data input exceeds the number of dots to be printed on a line, the excess data is ignored.
- d indicates the bit-image data. Set a corresponding bit to 1 to print a dot or to 0 not to print a dot.
- After printing a bit image, the printer returns to normal data processing mode.
- This command is not affected by print modes (emphasized, double-strike, underline, character size, or white/black reverse printing), except upside-down printing mode.
- The relationship between the image data and the dots to be printed is described in Figure 3.11.3.
- When 8-dot bit image is selected:



3.11.3

- When 24-dot bit image is selected:





3.11.3

ESC - n

[Name] Turn underline mode on/off

[Format] ASCII ESC - n

Hex 1B 2D n

Decimal 27 45 n

[Range] $0 \le n \le 2, 48 \le n \le 50$

[Description] Turns underline mode on or off, based on the following values n:

n	Function
0, 48	Turns off underline mode
1, 49	Turns on underline mode (1 dot thick)
2, 50	Turns on underline mode (2 dots thick)

[Notes]
- The printer can underline all characters (including right-side character spacing), but cannot underline the space set by **HT.**
- The printer cannot underline 90° clockwise rotated characters and white/black inverted characters.
- When underline mode is turned off by setting the value of n to 0 or 48, the following data is not underlined, and the underline thickness set before

the mode is turned off does not change. The default underline thickness is 1 dot.

- Changing the character size does not affect the current underline thickness.
- Underline mode can also be turned on or off by using **ESC !**. Note, however, that the last received command is effective.

[Default] n = 0

[Reference] **ESC !**

ESC 2

[Name] Select default line spacing

[Format] ASCII ESC 2

Hex 1B 32

Decimal 27 50

[Description] Selects 3.75 mm (30× 0.125 mm) line spacing.

[Notes] • The line spacing can be set independently in standard mode.

[Reference] **ESC 3**

ESC 3 n

[Name] Set line spacing

[Format] ASCII ESC 3 n

Hex 1B 33 n

Decimal 27 51 n

[Range] $0 \le n \le 255$

[Description] Sets the line spacing to [n×0.125 mm].

[Notes] • The line spacing can be set independently in standard mode.

- In standard mode, the vertical motion unit (y) is used.

[Default] n = 30

[Reference] **ESC 2**

ESC ? n

[Name] Cancel user-defined characters

[Format] ASCII ESC ? n

Hex 1B 3F n
Decimal 27 63 n

[Range] $32 \le n \le 126$

[Description] Cancels user-defined characters.

[Notes]
- This command cancels the patterns defined for the character codes specified by n. After the user-defined characters are canceled, the corresponding patterns for the internal characters are printed.
- This command deletes the pattern defined for the specified code in the font selected by **ESC !**.
- If a user-defined characters have not been defined, the printer ignores this command.

[Reference] **ESC &**, **ESC %**

ESC @

[Name] Initialize printer

[Format] ASCII ESC @
Hex 1B 40
Decimal 27 64

[Description] Clears the data in the print buffer and resets the printer mode to the mode that was in effect when the power was turned on.

[Notes]
- The DIP switch settings are not checked again.
- The data in the receive buffer is not cleared.

ESC D n1...nk NUL

[Name] Set horizontal tab positions

[Format] ASCII ESC D n1...nk NUL
Hex 1B 44 n1...nk 00
Decimal 27 68 n1...nk 0

[Range] $1 \le n \le 255$
$0 \le k \le 32$

[Description] Sets horizontal tab positions.
- n specifies the column number for setting a horizontal tab position from the beginning of the line.
- k indicates the total number of horizontal tab positions to be set.

[Notes]
- The horizontal tab position is stored as a value of [character width × n] measured from the beginning of the line. The character width includes the right-side character spacing, and double-width characters are set

with twice the width of normal characters.

- This command cancels the previous horizontal tab settings.
- When setting n = 8, the print position is moved to column 9 by sending **HT**.
- Up to 32 tab positions (k = 32) can be set. Data exceeding 32 tab positions is processed as normal data.
- Transmit [n]k in ascending order and place a NUL code 0 at the end. When [n]k is less than or equal to the preceding value [n]k-1, tab setting is finished and the following data is processed as normal data.
- **ESC D NUL** cancels all horizontal tab positions.
- The previously specified horizontal tab positions do not change, even if the character width changes.
- The character width is memorized for each standard mode.

[Default] The default tab positions are at intervals of 8 characters (columns 9, 17, 25,...) for Font A (12×24).

[Reference] **HT**

ESC E n

[Name] Turn emphasized mode on/off

[Format]

ASCII	ESC	E	n
Hex	1B	45	n
Decimal	27	69	n

[Range] $0 \le n \le 255$

[Description] Turns emphasized mode on or off

When the LSB of n is 0, emphasized mode is turned off.

When the LSB of n is 1, emphasized mode is turned on.

[Notes]
- Only the least significant bit of n is enabled.
- This command and **ESC !** turn on and off emphasized mode in the same way. Be careful when this command is used with **ESC !**.

[Default] n = 0

[Reference] **ESC !**

ESC G n

[Name] Turn on/off double-strike mode

[Format]

ASCII	ESC	G	n
Hex	1B	47	n
Decimal	27	71	n

[Range] $0 \le n \le 255$

[Description] Turns double-strike mode on or off.

- When the LSB of n is 0, double-strike mode is turned off.
- When the LSB of n is 1, double-strike mode is turned on.

[Notes]
- Only the lowest bit of n is enabled.
- Printer output is the same in double-strike mode and in emphasized mode.

[Default] n = 0

[Reference] **ESC E**

ESC J n

[Name] Print and feed paper

[Format]

ASCII	ESC	J	n
Hex	1B	4A	n
Decimal	27	74	n

[Range] $0 \le n \le 255$

[Description] Prints the data in the print buffer and feeds the paper [n× 0.125 mm (0.0049")].

[Notes]
- After printing is completed, this command sets the print starting position to the beginning of the line.
- The paper feed amount set by this command does not affect the values set by **ESC 2** or **ESC 3**.
- In standard mode, the printer uses the vertical motion unit (y).

ESC R n

[Name] Select an international character set

[Format]

ASCII	ESC	R	n
Hex	1B	52	n
Decimal	27	82	n

[Range] $0 \le n \le 13$

[Description] Selects international character set n from the following table:

n	Character set
0	U.S.A
1	France
2	Germany

3	U.K
4	Denmark I
5	Sweden
6	Italy
7	Spain I
8	Japan
9	Norway
10	Denmark II
11	Spain II
12	Latin America
13	Korea
14	Slovenia/Croatia
15	China

[Default] n = 0

ESC V n

[Name] Turn 90° clockwise rotation mode on/off

[Format] ASCII ESC V n

Hex 1B 56 n

Decimal 27 86 n

[Range] 0 ≤ n ≤ 1, 48 ≤ n ≤ 49

[Description] Turns 90° clockwise rotation mode on/off

n is used as follows:

n	Function
0,48	Turns off 90° clockwise rotation mode
1,49	Turns on 90° clockwise rotation mode

[Notes]
- This command affects printing in standard mode. However, the setting is always effective.
- When underline mode is turned on, the printer does not underline 90° clockwise-rotated characters.
- Double-width and double-height commands in 90° rotation mode enlarge characters in the opposite directions from double-height and double-width commands in normal mode.

[Default] n = 0

[Reference] **ESC !, ESC** –

ESC v n

[Name] Transmit paper sensor status

[Format] ASCII ESC v n

Hex 1B 76 n

Decimal 27 118 n

[Description] The return value is 1 bytes ,It is a different on behalf of the status：

Bit	Off/On	Hex	Decimal	Function
0	Off	00	0	Offline.
	On	01	1	Online.
1	-	-	-	Undefined.
2	Off	00	0	paper have.
	On	04	4	paper out.
3	Off	00	0	Voltage is normal.
	On	08	8	Voltage ＞9.5V.
4	-	-	-	Undefined.
5	-	-	-	Undefined.
6	Off	00	0	Temperature is normal.
	On	40	64	Temperature ＞60°.
7	-	-	-	Undefined.

For example：return “0x04” is means paper out.

ESC a n

[Name] Select justification

[Format] ASCII ESC a n

Hex 1B 61 n

Decimal 27 97 n

[Range] $0 \le n \le 2, 48 \le n \le 50$

[Description] Aligns all the data in one line to the specified position.

n selects the justification as follows:

n	Justification
0,48	Left justification
1, 49	Centering
2, 50	Right justification

[Notes]
- The command is enabled only when processed at the beginning of the line in standard mode.
- This command executes justification in the printing area.
- This command justifies the space area according to **HT, ESC $** .

[Default] n = 0

[Example]

Left justification	Centering	Right justification
ABC	**ABC**	**ABC**
ABCD	**ABCD**	**ABCD**
ABCDE	**ABCDE**	**ABCDE**

ESC SO n

[Name] Select Double Width mode
[Format] ASCII ESC SO n
Hex 1B 0E n
Decimal 27 14 n
[Description] Select Double Width mode,
To turn double width off, use LF or DC4 command.

ESC DC4 n

[Name] Disable Double Width mode
[Format] ASCII ESC DC4 n
Hex 1B 14 n
Decimal 27 20 n
[Description] Disable Double Width mode

ESC d n

[Name] Print and feed n lines
[Format] ASCII ESC d n
Hex 1B 64 n
Decimal 27 100 n
[Range] $0 \le n \le 255$
[Description] Prints the data in the print buffer and feeds n lines.
[Notes] • This command sets the print starting position to the beginning of the line.
• This command does not affect the line spacing set by **ESC 2** or **ESC 3**.
• The maximum paper feed amount is 1016 mm (40 inches). If the paper feed amount (n × line spacing) of more than 1016 mm (40 inches) is

specified, the printer feeds the paper only 1016 mm (40 inches).

[Reference] **ESC 2**, **ESC 3**

ESC t n

[Name] Select character code table

[Format] ASCII ESC t n

Hex 1B 74 n

Decimal 27 116 n

[Range] $0 \le n \le 5$, $16 \le n \le 19$, $n = 255$

[Description] Selects page n from the character code table.

N	Code Page	N	Code Page
0	CP437 [U.S.A., Standard Europe]	26	Thai
1	Katakana	27	CP720[Arabic]
2	CP850 [Multilingual]	28	CP855
3	CP860 [Portuguese]	29	CP857[Turkish]
4	CP863 [Canadian-French]	30	WCP1250[Central Eurpoe]
5	CP865 [Nordic]	31	CP775
6	WCP1251 [Cyrillic]	32	WCP1254[Turkish]
7	CP866 Cyrilliec #2	33	WCP1255[Hebrew]
8	MIK[Cyrillic /Bulgarian]	34	WCP1256[Arabic]
9	CP755 [East Europe, Latvian 2]	35	WCP1258[Vietnam]
10	Iran	36	ISO-8859-2[Latin 2]
11	reserve	37	ISO-8859-3[Latin 3]
12	reserve	38	ISO-8859-4[Baltic]
13	reserve	39	ISO-8859-5[Cyrillic]
14	reserve	40	ISO-8859-6[Arabic]
15	CP862 [Hebrew]	41	ISO-8859-7[Greek]
16	WCP1252 Latin I	42	ISO-8859-8[Hebrew]
17	WCP1253 [Greek]	43	ISO-8859-9[Turkish]
18	CP852 [Latina 2]	44	ISO-8859-15 [Latin 3]
19	CP858 Multilingual Latin Ⅰ+Euro)	45	Thai2
20	Iran II	46	CP856
21	Latvian	47	Cp874
22	CP864 [Arabic]		
23	ISO-8859-1 [West Europe]		
24	CP737 [Greek]		
25	WCP1257 [Baltic]		

[Default] n = 0

[Reference] Character Code Tables

ESC { n

[Name] Turns on/off upside-down printing mode

[Format]

ASCII	ESC	{	n
Hex	1B	7B	n
Decimal	27	123	n

[Range] $0 \le n \le 255$

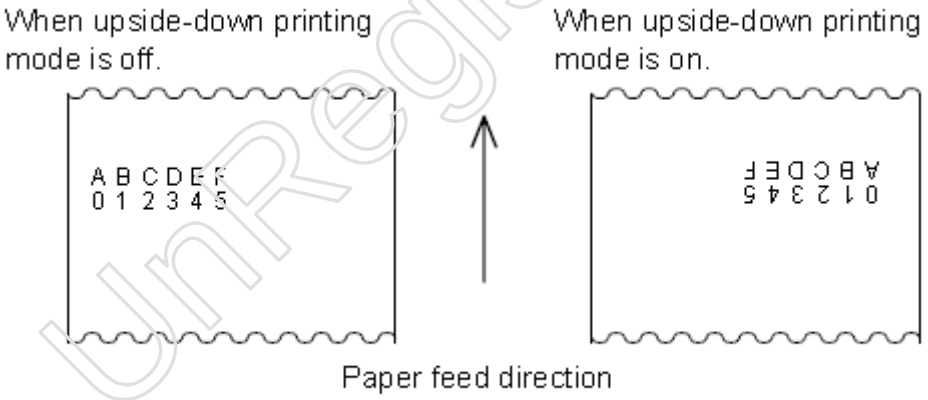
[Description] Turns upside-down printing mode on or off.

- When the LSB of n is 0, upside-down printing mode is turned off.
- When the LSBof n is 1, upside-down printing mode is turned on.

[Notes]
- Only the lowest bit of n is valid.
- This command is enabled only when processed at the beginning of a line in standard mode.
- In upside-down printing mode, the printer rotates the line to be printed by 180°and then prints it.

[Default] n = 0

[Example]



FS p n m

[Name] Print NV bit image

[Format]

ASCII	FS	p	n	m
Hex	1C	70	n	m
Decimal	28	112	n	m

[Range] $1 \le n \le 255$

$0 \le m \le 3$, $48 \le m \le 51$

[Description] Prints NV bit image n using the mode specified by m.

m	Mode	Vertical Dot Density	Horizontal Dot Density
0，48	Normal	203.2 dpi	203.2 dpi
1，49	Double-width	203.2 dpi	101.6 dpi
2，50	Double-height	101.6 dpi	203.2 dpi
3，51	Quadruple	101.6 dpi	101.6 dpi

- n is the number of the NV bit image (defined using the **FS q** command).
- m specifies the bit image mode.

[Detail]
- NV bit image is a bit image defined in non-volatile memory by **FS q** and printed by **FS p**.
- This command is not effective when the specified NV bit image has not been defined.
- In standard mode, this command is effective only when there is no data in the print buffer.
- This command is not affected by print modes (emphasized, underline, character size, white/black reverse printing, or 90° rotated characters, etc.), except upside-down printing mode.
- If the downloaded bit-image to be printed exceeds one line, the excess data is not printed.
- This command feeds dots (for the height n of the NV bit image) in normal and double-width modes, and (for the height n × 2 of the NV bit image) in doubleheight and quadruple modes, regardless of the line spacing specified by **ESC 2** or **ESC 3**.
- After printing the bit image, this command sets the print position to the beginning of the line and processes the data that follows as normal data.

[References] **ESC *, FS q, GS /, GS v**

FS q n [x_L x_H y_L y_H d1...dk]1...[x_L x_H y_L y_H d1...dk]n

[Name] Define NV bit image

[Format]

ASCII	FS	q	n	[xL xH yL yH d1...dk]1...[xL xH yL yH d1...dk]n
Hex	1C	71	n	[xL xH yL yH d1...dk]1...[xL xH yL yH d1...dk]n
Decimal	28	113	n	[xL xH yL yH d1...dk]1...[xL xH yL yH d1...dk]n

[Range] $1 \le n \le 255$

$0 \le xL \le 255$

$0 \le xH \le 3$ (when $1 \le (xL + xH \times 256) \le 1023$

$0 \le yL \le 255$

$0 \le yL \le 1$ (when $1 \le (yL + yH \times 256) \le 288$

$0 \le d \le 255$

$k = (xL + xH \times 256) \times (yL + yH \times 256) \times 8$

Total defined data area = 192K bytes

[Description] Define the NV bit image specified by n.

- n specifies the number of the defined NV bit image.
- xL, xH specifies (xL + xH × 256) × 8 dots in the horizontal direction for the NV bit image you are defining.
- yL, yH specifies (yL + yH × 256) × 8 dots in the vertical direction for the NV bit image you are defining.

[Notes]

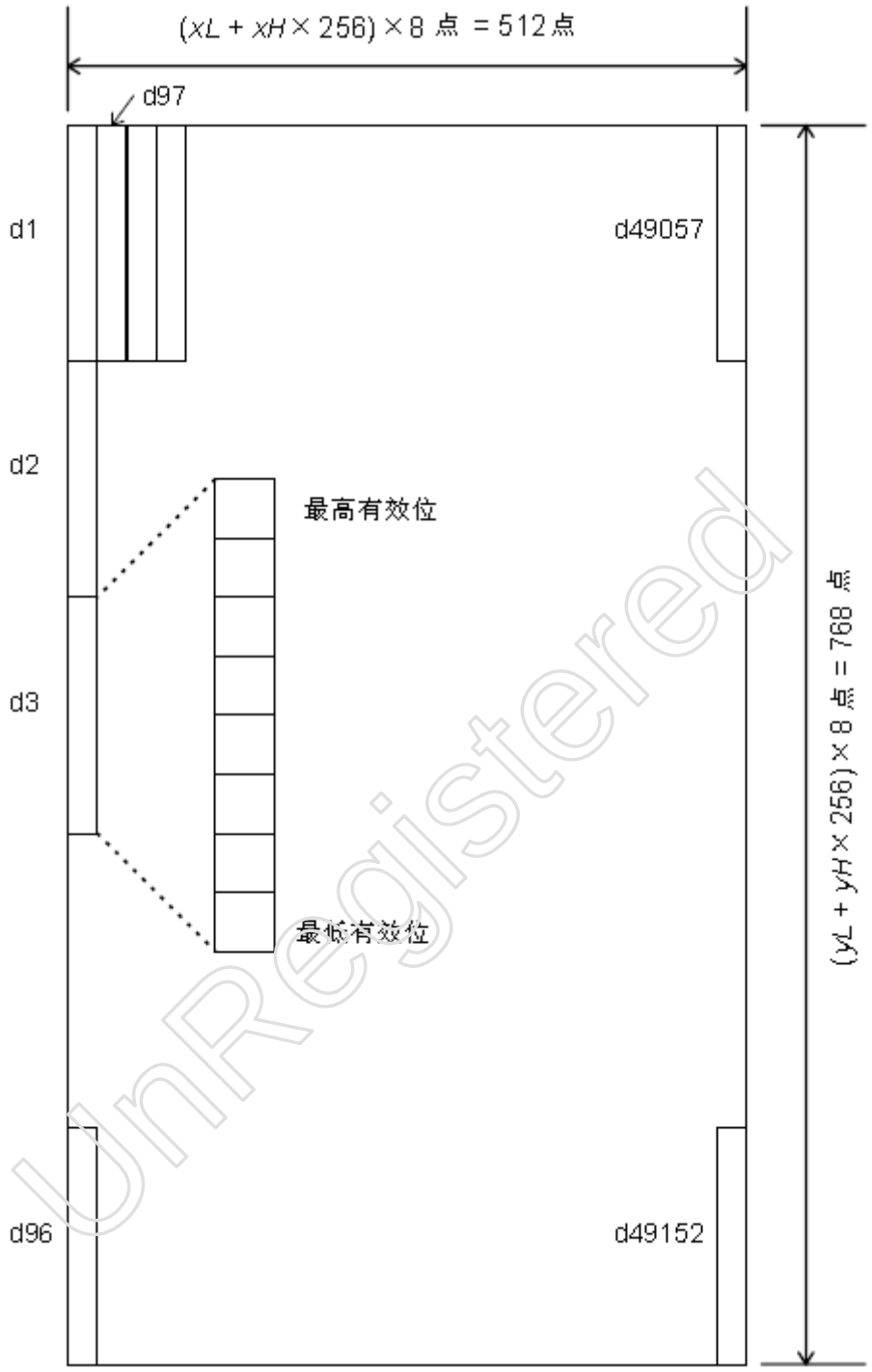
- Frequent write command executions may damage the NV memory. Therefore, it is recommended to write the NV memory 10 times or less a day.
- The printer performs a hardware reset after the procedure to place the image into the NV memory. Therefore, user-defined characters, downloaded bit images should be defined only after completing this command. The printer clears the receive and print buffers and resets the mode to the mode that was in effect at power on. (this version is not support hardware reset)
- This command cancels all NV bit images that have already been defined by this command.
- From the beginning of the processing of this command till the finish of hardware reset, mechanical operations (including initializing the position of the print head when the cover is open, paper feeding using the FEED button, etc.) cannot be performed.
- During processing of this command, the printer is BUSY when writing data to the user NV memory and stops receiving data. Therefore it is prohibited to transmit the data, including real-time commands, during the execution of this command.
- NV bit image is a bit image defined in non-volatile memory by **FS q** and printed by **FS p**.
- In standard mode, this command is effective only when processed at the beginning of the line.
- This command is effective when 7 bytes <FS~yH> of the command are processed normally.
- When the amount of data exceeds the capacity left in the range defined by xL, xH, yL, yH, the printer processes xL, xH, yL, yH out of the defined range.
- In the first group of NV bit images, when any of the parameters xL, xH, yL, yH is out of the definition range, this command is disabled.
- In groups of NV bit images other than the first one, when the printer encounters xL, xH, yL, yH out of the defined range, it stops processing this command and starts writing into the NV images. At this time, NV bit images that haven't been defined are disabled (undefined), but any NV bit images before that are enabled.
- The d indicates the definition data. In data (d) a 1 bit specifies a dot to be printed and a 0 bit specifies a dot not to be printed.
- This command defines n as the number of a NV bit image. Numbers rise

in order from NV bit image 01H. Therefore, the first data group [xL xH yL yH d1...dk] is NV bit image 01H, and the last data group [xL xH yL yH d1...dk] is NV bit image n. The total agrees with the number of NV bit images specified by the command **FS p**.

- The definition data for an NV bit image consists of [xL xH yL yH d1...dk]. Therefore, when only one NV bit image is defined n=1, the printer processes a data group [xL xH yL yH d1...dk] once. The printer uses ([data: (xL + xH× 256）×(yL + yH× 256）×8] + [header :4]) bytes of NV memory.
- The definition area in this printer is a maximum of 192K bytes. This command can define several NV bit images, but cannot define bit image data whose total capacity [bit image data + header] exceeds 192K bytes.
- The printer does not transmit ASB status or perform status detection during processing of this command even when ASB is specified.
- Once an NV bit image is defined, it is not erased by performing **ESC** @, reset, and power off.
- This command performs only definition of an NV bit image and does not perform printing. Printing of the NV bit image is performed by the **FS p** command.

[Reference] **FS p**

［Example］当 $xL = 64$, $xH = 0$, $yL = 96$, $yH = 0$



GS ! n

[Name] Select character size

[Format] ASCII GS ! n

Hex 1D 21 n

Decimal 29 33 n

[Range] $0 \le n \le 255$

($1 \le$ vertical number of times ≤ 8, $1 \le$ horizontal number of times ≤ 8)

[Description] Selects the character height using bits 0 to 2 and selects the character width using bits 4 to 7, as follows:

Bit	Off/On	Hex	Decimal	Function
0	Character height selection. See Table 2.			
1				
2				
3				
4	Character width selection. See Table 1.			
5				
6				
7				

Table 1

Character Width Selection

Hex	Decimal	Width
00	0	1(normal)
10	16	2(double-width)
20	32	3
30	48	4
40	64	5
50	80	6
60	96	7
70	112	8

Table 2

Character Height Selection

Hex	Decimal	Width
00	0	1(normal)
01	1	2(double-height)
02	2	3
03	3	4
04	4	5
05	5	6
06	6	7
07	7	8

[Notes]
- This command is effective for all characters (alphanumeric and Kanji), except for HRI characters.
- If n is outside the defined range, this command is ignored.
- In standard mode, the vertical direction is the paper feed direction, and the horizontal direction is perpendicular to the paper feed direction. However, when character orientation changes in 90° clockwise-rotation mode, the relationship between vertical and horizontal directions is reversed.
- When characters are enlarged with different sizes on one line, all the characters on the line are aligned at the baseline.
- The **ESC !** command can also turn double-width and double-height

modes on or off. However, the setting of the last received command is effective.

[Default] n = 0

[Reference] **ESC !**

GS * x y d1...d(x × y × 8)

[Name] Define downloaded bit image

[Format]

ASCII	GS	*	x	y	d1...d(x×y×8)
Hex	1D	2A	x	y	d1...d(x×y ×8)
Decimal	29	42	x	y	d1 ...d(x× y×8)

[Range] $1 \le x \le 255$

$1 \le y \le 48$ (where $x \times y \le 1536$)

$0 \le d \le 255$

[Description] Defines a downloaded bit image using the number of dots specified by x and y.

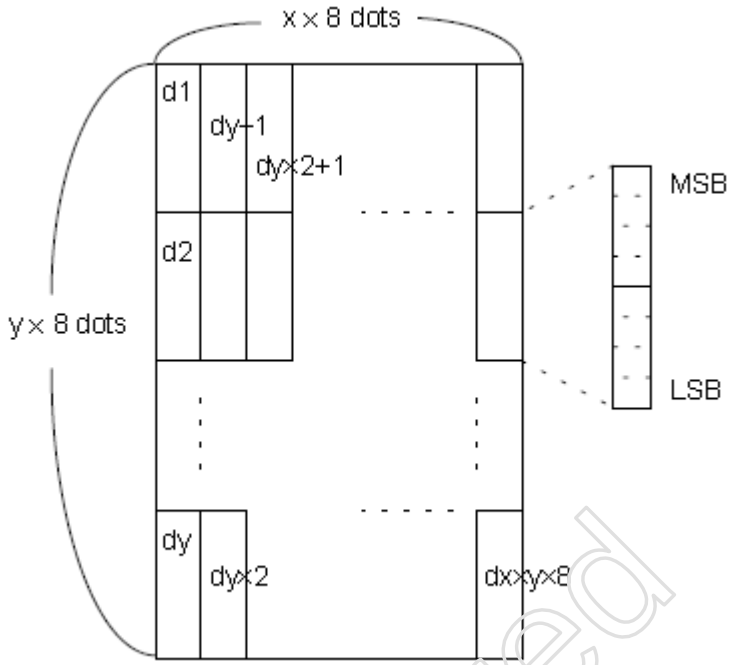
- x specifies the number of dots in the horizontal direction.
- y specifies the number of dots in the vertical direction.

[Notes]

- The number of dots in the horizontal direction is x×8; in the vertical direction it is y×8.
- If x×y is out of the specified range, this command is disabled.
- The d indicates bit-image data. Data (d) specifies a bit printed as 1 and not printed as 0.
- The downloaded bit image definition is cleared when:

1) **ESC @** is executed.
2) **ESC &** is executed.
3) Printer is reset or the power is turned off.

- The following figure shows the relationship between the downloaded bit image and the printed data.



[Reference] **GS /**

GS / m

[Name] Print downloaded bit image

[Format] ASCII GS / m

Hex 1D 2F m

Decimal 29 47 m

[Range] 0 ≤ m ≤ 3, 48 ≤ m ≤ 51

[Description] Prints a downloaded bit image using the mode specified by m.

m selects a mode from the table below:

m	Mode	Vertical Dot Density	Horizontal Dot Density
0, 48	Normal	203.2 dpi	203.2 dpi
1, 49	Double-width	203.2 dpi	101.6 dpi
2, 50	Double-height	101.6 dpi	203.2 dpi
3, 51	Quadruple	101.6 dpi	101.6 dpi

[Notes]
- This command is ignored if a downloaded bit image has not been defined.
- In standard mode, this command is effective only when there is no data in the print buffer.
- This command has no effect in the print modes (emphasized, double-strike, underline, character size, or white/black reverse printing), except for upsidedown printing mode.
- If the downloaded bit-image to be printed exceeds the printable area, the

excess data is not printed.

[Reference] **GS** *

GS B n

[Name] Turn white/black reverse printing mode

[Format] ASCII GS B n

Hex 1D 42 n

Decimal 29 66 n

[Range] $0 \le n \le 255$

[Description] Turns on or off white/black reverse printing mode.

- When the LSB of n is 0, white/black reverse mode is turned off.
- When the LSB of n is 1, white/black reverse mode is turned on.

[Notes]
- Only the lowest bit of n is valid.
- This command is available for built-in characters and user-defined characters.
- When white/black reverse printing mode is on, it also applies to character spacing set by **ESC SP**.
- This command does not affect bit images, user-defined bit images, bar codes,HRI characters, and spacing skipped by **HT**, **ESC $**.
- This command does not affect the space between lines.
- White/black reverse mode has a higher priority than underline mode. Even if underline mode is on, it is disabled (but not canceled) when white/black reverse mode is selected.

[Default] n = 0

GS H n

[Name] Select printing position for HRI characters

[Format] ASCII GS H n

Hex 1D 48 n

Decimal 29 72 n

[Range] $0 \le n \le 3, 48 \le n \le 51$

[Description] Selects the printing position of HRI characters when printing a bar code. n selects the printing position as follows:

n	Printing position
0, 48	Not printed
1, 49	Above the bar code
2, 50	Below the bar code

3, 51	Both above and below the bar code

- HRI indicates Human Readable Interpretation.

[Notes] • HRI characters are printed using the font specified by **GS f**.

[Default] n = 0

[Reference] **GS f**, **GS k**

GS L n_L n_H

[Name] Set left margin

[Format] ASCII GS L n_L n_H

Hex 1D 4C n_L n_H

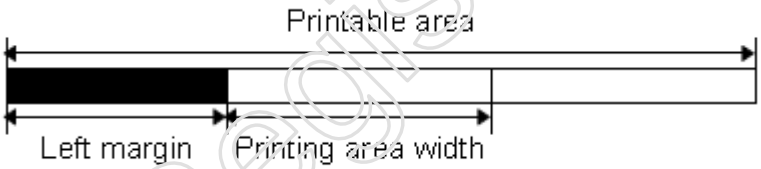
Decimal 29 76 n_L n_H

[Range] $0 \le n_L \le 255$

$0 \le n_H \le 255$

[Description] Sets the left margin using n_L and n_H.

- The left margin is set to $[(n_L + n_H \times 256) \times 0.125$ mm].



[Notes] • This command is effective only when processed at the beginning of the line in standard mode.

- If the setting exceeds the printable area, the maximum value of the printable area is used.

[Default] $n_L = 0$, $n_H = 0$

GS a n

[Name] Enable/Disable Automatic Status Back (ASB)

[Format] ASCII GS a n

Hex 1D 61 n

Decimal 29 97 n

[Range] $0 \le n \le 255$

Bit	Function	Value	
		0	1

0	-	-	-
1	-	-	-
2	Disable/Enable ASB	Disable	Enable
3-4	-	-	-
5	Disable/Enable RTS as flow control	Disable	Enable
6-7	-	-	-

[Description] When ASB is enabled, the printer will send the changed status to PC automatically.

GS h n

[Name] Select bar code height

[Format] ASCII GS h n

Hex 1D 68 n

Decimal 29 104 n

[Range] $1 \le n \le 255$

[Description] Selects the height of the bar code.

n specifies the number of dots in the vertical direction.

[Default] n = 162

[Reference] **GS k**

① GS k m d1...dk NUL② GS k m n d1...dn

[Name] Print bar code

[Format] ①ASCII GS k m d1...dk NUL

Hex 1D 6B m d1...dk 00

Decimal 29 107 m d1...dk 0

②ASCII GS k m n d1...dn

Hex 1D 6B m n d1...dn

Decimal 29 107 m n d1...dn

[Range] ① $0 \le m \le 6$ (k and d depend on the bar code system used)

② $65 \le m \le 73$ (n and d depend on the bar code system used)

[Description] Selects a bar code system and prints the bar code.

m selects a bar code system as follows:

m		Bar Code System	Number of Characters	Remarks
①	0	UPC-A	$11 \le k \le 12$	$48 \le d \le 57$
	1	UPC-E	$11 \le k \le 12$	$48 \le d \le 57$
	2	JAN13 (EAN13)	$12 \le k \le 13$	$48 \le d \le 57$

	3	JAN 8 (EAN8)	7 ≤ k ≤ 8	48 ≤ d ≤ 57
	4	CODE39	1 ≤ k′	48 ≤ d ≤ 57, 65 ≤ d ≤ 90, 32, 36, 37, 43, 45, 46, 47
	5	ITF	1 ≤ k (even number)	48 ≤ d ≤ 57
	6	CODABAR	1 ≤ k′	48 ≤ d ≤ 57, 65 ≤ d ≤ 68 , 36, 43, 45, 46, 47, 58
②	65	UPC-A	11 ≤ n ≤ 12	48 ≤ d ≤ 57
	66	UPC-E	11 ≤ n ≤ 12	48 ≤ d ≤ 57
	67	JAN13 (EAN13)	12 ≤ n ≤ 13	48 ≤ d ≤ 57
	68	JAN 8 (EAN8)	7 ≤ n ≤ 8	48 ≤ d ≤ 57
	69	CODE39	1 ≤ n ≤ 255	48 ≤ d ≤ 57, 65 ≤ d ≤ 90, 32, 36, 37, 43, 45, 46, 47
	70	ITF	1 ≤ n ≤ 255 (even number)	48 ≤ d ≤ 57
	71	CODABAR	1 ≤ n ≤ 255	48 ≤ d ≤ 57, 65 ≤ d ≤ 68 , 36, 43, 45, 46, 47, 58
	72	CODE93	1 ≤ n ≤ 255	0 ≤ d ≤ 127
	73	CODE128	2 ≤ n ≤ 255	0 ≤ d ≤ 127

[Notes for ①]

- This command ends with a NUL code.
- When the bar code system used is UPC-A or UPC-E, the printer prints the bar code data after receiving 12 bytes of bar code data and processes the following data as normal data.
- When the bar code system used is JAN13 (EAN13), the printer prints the bar code after receiving 13 bytes of bar code data and processes the following data as normal data.
- When the bar code system used is JAN8 (EAN8), the printer prints the bar code after receiving 8 bytes of bar code data and processes the following data as normal data.
- The number of data for the ITF bar code must be even numbers. When an odd number of bytes of data is input, the printer ignores the last received data.

[Notes for ②]

- n indicates the number of bar code data bytes, and the printer processes n bytes from the next character data as bar code data.
- If n is outside the specified range, the printer stops command processing and processes the following data as normal data.

[Notes in standard mode]

- If d is outside the specified range, the printer only feeds paper and processes the following data as normal data.
- If the horizontal size exceeds printing area, the printer only feeds the paper.

- This command feeds as much paper as is required to print the bar code, regardless of the line spacing specified by **ESC 2** or **ESC 3**.
- This command is enabled only when no data exists in the print buffer. When data exists in the print buffer, the printer processes the data following m as normal data.
- After printing the bar code, this command sets the print position to the beginning of the line.
- This command is not affected by print modes (emphasized, double-strike, underline, character size, white/black reverse printing, or 90° rotated character, etc.), except for upside-down printing mode.

Control character			HRI character	Control character			HRI character
ASCII	**Hex**	**Decimal**		**ASCII**	**Hex**	**Decimal**	
NUL	00	0	■U	DEL	10	16	■P
SOH	01	1	■A	DC1	11	17	■Q
STX	02	2	■B	DC2	12	18	■R
ETX	03	3	■C	DC3	13	19	■S
EOT	04	4	■D	DC4	14	20	■T
ENQ	05	5	■E	NAK	15	21	■U
ACK	06	6	■F	SYN	16	22	■V
BEL	07	7	■G	ETB	17	23	■W
BS	08	8	■H	CAN	18	24	■X
HT	09	9	■I	EM	19	25	■Y
LF	0A	10	■J	SUB	1A	26	■Z
VT	0B	11	■K	ESC	1B	27	■A
FF	0C	12	■L	FS	1C	28	■B
CR	0D	13	◪M	GS	1D	29	■C
SO	0E	14	◣N	RS	1E	30	■D
SI	0F	15	■O	US	1F	31	■E
				DEL	7F	127	■T

[Example] Printing **GS k** 72 7 67 111 100 101 13 57 51

When CODE128 (m = 73) is used:

- Refer to Appendix D for the information for the CODE128 bar code and its code table.
- When using CODE128 in this printer, take the following points into

account for data transmission:

① The top of the bar code data string must be the code set selection character (CODE A, CODE B, or CODE C), which selects the first code set.

②Special characters are defined by combining two characters "{" and one character. The ASCII character "{" is defined by transmitting "{" twice consecutively.

Specific character	Transmit data		
	ASCII	**Hex**	**Decimal**
SHIFT	{S	7B, 53	123,83
CODE A	{A	7B, 41	123,65
CODE B	{B	7B,42	123,66
CODE C	{C	7B,43	123,67
FNC1	{1	7B,31	123,49
FNC2	{2	7B,32	123,50
FNC3	{3	7B,33	123,51
FNC4	{4	7B,34	123,52
"{"	{{	7B,7B	123,123

[Example] Example data for printing "No. 123456"

In this example, the printer first prints "No." using CODE B, then prints the following numbers using CODE C.

GS k 73 10 123 66 78 111 46 123 67 12 34 56

- If the top of the bar code data is not the code set selection character, the printer stops command processing and processes the following data as normal data.
- If the combination of "{" and the following character does not apply any special character, the printer stops command processing and processes the following data as normal data.
- If the printer receives characters that cannot be used in the special code set, the printer stops command processing and processes the following data as normal data.
- The printer does not print HRI characters that correspond to the shift characters or code set selection characters.
- HRI character for the function character is space.
- HRI characters for the control character (<00>H to <1F>H and <7F>H) are space.

<Others> Be sure to keep spaces on both right and left sides of a bar code. (Spaces are different depending on the types of the bar code.)

[Reference] **GS H**, **GS h**, **GS w**, Appendix D

GS x n

[Name] Set barcode printing left space

[Format] ASCII GS x n

Hex 1D 78 n

Decimal 29 120 n

[Description] The print bar code staring positions is: 0→255

GS r n

[Name] Transmit status

[Format] ASCII GS r n

Hex 1D 72 n

Decimal 29 114 n

[Range] n = 1, 49

[Description] Transmits the status specified by n as follows:

n	Function
1, 49	Transmits paper sensor status

[Notes]
- When using a serial interface

  When DTR/DSR control is selected, the printer transmits only 1 byte after confirming the host is ready to receive data (DSR signal is SPACE). If the host computer is not ready to receive data (DSR signal is MARK), the printer waits until the host is ready.

  When XON/XOFF control is selected, the printer transmits only 1 byte without confirming the condition of the DSR signal.
- This command is executed when the data in the receive buffer is developed. Therefore, there may be a time lag between receiving this command and transmitting the status, depending on the receive buffer status.
- When Auto Status Back (ASB) is enabled using **GS a**, the status transmitted by **GS r** and the ASB status must be differentiated using.
- The status types to be transmitted are shown below:

Paper sensor status (n = 1, 49):

Bit	Off/On	Hex	Decimal	Status for ASB
0,1	-	-	-	Undefined.
2,3	Off	00	0	Paper roll end sensor: paper adequate.
	On	(0C)	(12)	Paper roll end sensor: paper near end.
4	Off	00	0	Not used. Fixed to Off.
5,6	-	-	-	Undefined.
7	Off	00	0	Not used. Fixed to Off.

Bits 2 and 3: When the paper end sensor detects a paper end, the printer goes offline and does not execute this command. Therefore, bits 2 and 3 do not transmit the status of paper end.

[Reference] **GS a**

GS v 0 m x_L x_H y_L y_H d1....dk

[Name] Print raster bit image

[Format]

ASCII	GS	v	0	m	x_L	x_H	y_L	y_H	d1...dk
Hex	1D	76	30	m	Xl	x_H	y_L	y_H	d1...dk
Decimal	29	118	48	m	x_L	x_H	y_L	y_H	d1...dk

[Range] $0 \le m \le 3$, $48 \le m \le 51$

$0 \le x_L \le 255$

$0 \le x_H \le 255$ where $1 \le (x_L + x_H \times 256) \le 128$

$0 \le y_L \le 255$

$0 \le y_H \le 8$ where $1 \le (y_L + y_H \times 256) \le 4095$

$0 \le d \le 255$

$k = (x_L + x_H \times 256) \times (y_L + y_H \times 256)$ $(k \neq 0)$

[Description] Selects raster bit-image mode. The value of m selects the mode, as follows:

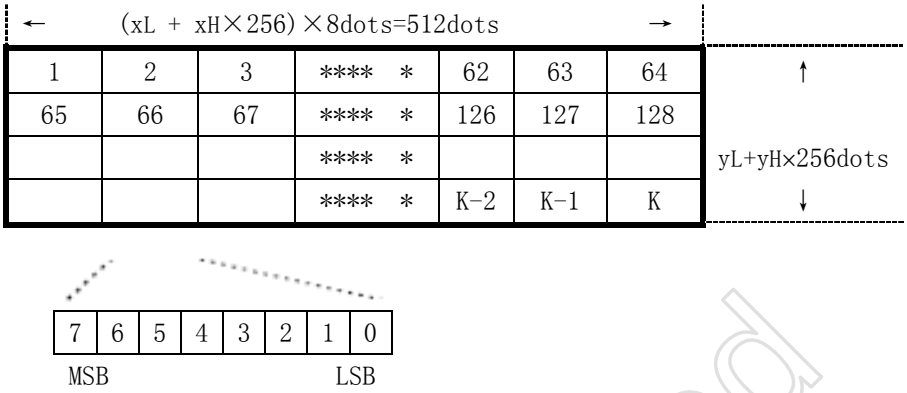
m	Mode	Vertical Dot Density	Horizontal Dot Density
0, 48	Normal	203.2 dpi	203.2 dpi
1, 49	Double-width	203.2 dpi	101.6 dpi
2, 50	Double-height	101.6 dpi	203.2 dpi
3, 51	Quadruple	101.6 dpi	101.6 dpi

- x_L, x_H, select the number of data bytes ($x_L + x_H \times 256$) in the horizontal direction for the bit image.
- y_L, y_H, select the number of data bits ($y_L + y_H \times 256$) in the vertical direction for the bit image.

[Notes]
- In standard mode, this command is effective only when there is no data in the print buffer.
- This command is not affected by print modes (character size, emphasized, double-strike, upside-down, underline, white/black reverse printing, etc.) for raster bit image.
- Data outside the printing area is read in and discarded on a dot-by-dot basis.
- The position at which subsequent characters are to be printed for raster bit image is specified by **HT** (Horizontal Tab), **ESC $** (Set absolute print position), and **GS L** (Set left margin). If the position at which subsequent characters are to be printed is a multiple of 8.

- The **ESC a** (Select justification) setting is also effective on raster bit images.
- d indicates the bit-image data. Setting a bit to 1 prints a dot and setting it to 0 does not print a dot.

[Example] When xL+xH×256=64



GS w n

[Name] Set bar code width

[Format] ASCII GS w n

Hex 1D 77 n

Decimal 29 119 n

[Range] 2 ≤ n ≤ 6

[Description] Sets the horizontal size of the bar code.

n specifies the bar code width as follows:

n	Module Width (mm) for Multi-level Bar Code	Binary-level Bar Code	
		Thin Element Width (mm)	Thick Element Width(mm)
2	0.250	0.250	0.625
3	0.375	0.375	1.000
4	0.560	0.500	1.250
5	0.625	0.625	1.625
6	0.750	0.750	2.000

- Multi-level bar codes are as follows:
  UPC-A, UPC-E, JAN13 (EAN13), JAN8 (EAN8), CODE93, CODE128
- Binary-level bar codes are as follows:
  CODE39, ITF, CODABAR

[Default] n = 3

[Reference] **GS k**

FS ! n

[Name] Set print mode(s) for Kanji characters

[Format] ASCII FS ! n

Hex 1C 21 n

Decimal 28 33 n

[Range] $0 \le n \le 255$

[Description] Sets the print mode for Kanji characters, using n as follows:

Bit	Off/On	Hex	Decimal	Function
0	—	—	—	Undefined.
1	—	—	—	Undefined.
2	Off	00	0	Double-width mode is OFF.
	On	04	4	Double-width mode is ON.
3	Off	00	0	Double-height mode is OFF.
	On	08	8	Double-height mode is ON.
4	—	—	—	Undefined.
5	—	—	—	Undefined.
6	—	—	—	Undefined.
7	Off	00	0	Underline mode is OFF.
	On	80	128	Underline mode is ON.

[Notes]
- When both double-width and double-height modes are set (including right- and left-side character spacing), quadruple-size characters are printed.
- The printer can underline all characters (including right- and left-side character spacing), but cannot underline the space set by **HT** and 90° clockwise-rotated characters.
- When some of the characters in a line are double or more height, all the characters on the line are aligned at the baseline.
- It is possible to emphasize the Kanji character using **GS !**; the setting of the last received command is effective.

[Default] n = 0

[Reference] **GS !**

FS &

[Name] Select Kanji character mode

[Format] ASCII FS &

Hex 1C 26

Decimal 28 38

[Description] Selects Kanji character mode.

[Notes] For Kanji model:

- When the Kanji character mode is selected, the printer processes all Kanji code as two bytes each.
- Kanji codes are processed in the order of the first byte and second byte.
- Kanji character mode is not selected when the power is turned on.

For Simplified Chinese/Taiwanese Kanji model:

- When The kanji character mode is selected, the printer checks whether the code is for Kanji or not; then processes the first byte and the second byte if the code is for Kanji.
- Kanji codes are processed in the order of the first byte and second byte.
- Kanji character mode is not selected when the power is turned on.

[Reference] **FS .**

FS .

[Name] Cancel Kanji character mode

[Format] ASCII FS .

Hex 1C 2E

Decimal 28 46

[Description] Cancels Kanji character mode.

[Notes] For Kanji model:

- When the Kanji character mode is not selected, all character codes are processed one byte at a time as ASCII code.
- Kanji character mode is not selected when the power is turned on.

[Reference] **FS &**

ESC = n

[Name] Set peripheral device

[Format] ASCII ESC = n

Hex 1b 3d n

Decimal 27 61 n

[Description] Set peripheral device:

Bit	Off/On	Hex	Decimal	Function
0	Off	00	0	Printer offline, not receive print data.
	On	01	1	Printer online, receive print data.
1-7	-	-	-	Undefined.

ESC 7 n1 n2 n3

[Name] Setting Control Parameter Command

[Format] ASCII ESC 7 n1 n2 n3

Hex 1B 37 n1 n2 n3

Decimal 27 55 n1 n2 n3

[Description] Set “max heating dots”,”heating time”, “heating interval” ;

n1 = 0-255 Max printing dots，Unit(8dots)，Default:9(80 dots);

n2 = 3-255 Heating time，Unit(10us),Default:80(800us);

n3 = 0-255 Heating interval,Unit(10us)，Default:2(20us);

The more max heting dots, the more peak current will cost whenprinting, the faster printing speed. The max heating dots is 8*(n1+1);

The more heating time, the more density , but the slower printing speed. If heating time is too short, blank page may occur.

The more heating interval, the more clear, but the slower printingspeed.

ESC 8 n1 n2

[Name] Sleep parameter

[Format] ASCII ESC 8 n1 n2

Hex 1B 38 n1 n2

Decimal 27 56 n1 n2

[Description] Setting the time for control board to enter sleep mode.

n1+n2*256 The time waiting for sleep after printing finished，Unit(Second)，Default:0(don’t sleep)

When control board is in sleep mode, host must send one byte(0xff) to wake up control board. And waiting 50ms, then send printing command and data.

NOTE：The command is useful when the system is powered by battery.

ESC 9 n

[Name] Select Chinese code format

[Format] ASCII ESC 9 n

Hex 1B 39 n

Decimal 27 57 n

[Description] Select Chinese code format, n from the character code table as follows:

0:GBK code

1:UTF-8 code

3:BIG5 code

NOTE: This version is not support English.

DC2 T

[Name] Printing test page

[Format] ASCII DC2 T

Hex 12 54

Decimal 18 94

[Description] Printing test page

FS t n (for CB105B)

[Name] Select Timeout

[Format] ASCII FS t n

Hex 1C 74 n

Decimal 28 116 n

[Description] Set Timeout for one byte, t = n×10 ms; so if There are 100 bytes needed for a command, the printer will wait 1000×n ms, when n = 0 , the printer will wait until all chars needed have received.

ESC C n（for BM）

[Name] Set BM Max

[Format] ASCII ESC B n

Hex 1B 43 n

Decimal 27 67 n

[Description] With the current row spacing of unit, the line number to define the scope of testing black mark, the default value is 4 inches

GS FF（for BM）

[Name] Feed marked paper to print starting position

[Format] ASCII GS FF

Hex 1D 0C

Decimal 29 12

[Description] Feeds the marked paper to the print starting position.
Locate to the black mark.

[Notes:] • This command sets the next print position to the beginning of the line.

• Even if this command is executed at the print starting position of the marked paper, the printer does not feed the marked paper to the next print starting position.

[Reference] **GS (F**

ESC i n(for cut)

[Name] cut paper

[Format] ASCII ESC i n

Hex 1B 69 n

Decimal 27 105 n

[Description] ESC m select a paper cutting mode and then full cut the paper.

ESC m n(for cut)

[Name] partial cut paper

[Format] ASCII ESC m n

Hex 1B 6d n

Decimal 27 109 n

[Description] ESC m select a paper cutting mode and then partial cut the paper.

ESC p m t1 t2(for Drawer)

[Name] Generate pulse

[Format] ASCII ESC p m t1 t2

Hex 1B 70 m t1 t2

Decimal 27 112 m t1 t2

[Range] m=0,1,48,49

$0 \le t1 \le 255$, $0 \le t2 \le 255$

[Description] Outputs the pulse specified by t1 to connector pin m as follows:

m	Function
0,48	Drawer kick-out connector pin2.
1,49	Drawer kick-out connector pin5.

[Notes] • The pulse ON time is [t1×2ms] and the OFF time is[t2×2ms].

•If t2<t1,the OFF time is [t1×2ms].

ESC u n (for Drawer)

[Name] Transmit peripheral device status

[Format] ASCII ESC u n

Hex 1B 75 n

Decimal 27 117 n

[Range] 0=0,48

[Description] transmits the status of the drawer kick-out connector pin 3 as 1byte of data when n=0,48.this allows the host to determine the status of a peripheral device.

n is used as follows:

Bit	On/off	Hex	Decimal	Function
0	Off	00	0	Drawer kick out connector pin 3 is low
0	On	01	1	Drawer kick out connector pin 3 is high
1-3	-	-	-	Undefined
4	Off	00	0	Not used. Fixed to off
5-6	-	-		Undefined
7	Off	00	0	Not used. Fixed to off

ESC c 5 n(for buttons)

[Name] Enable/disable panel buttons

[Format] ASCII ESC c 5 n

Hex 1B 63 35 n

Decimal 27 99 53 n

[Range] $0 \le n \le 255$

[Description] Enables or disables the panel buttons.

- When the LSB of n is 0, the panel buttons are enabled.
- When the LSB of n is 1, the panel buttons are disabled.

[Default] n = 0

GS (F p_L p_H a m n_L n_H(for 701BM)

[Name] Set adjustment value(s)

[Format]

ASCII	GS	(	F	pL	pH	a	m	nL	nH
Hex	1D	28	46	pL	pH	a	m	nL	nH
Decimal	29	40	70	pL	p	a	m	nL	nH

[Range] (pL + (pH × 256)) = 4 (where pL = 4, pH = 0)

$1 \le a \le 2$

m = 0, 48 or 1, 49

$0 \le (nL + nH \times 256) \le 65535$

(where $0 \le nL \le 255$, $0 \le nH \le 255$)

[Description] This command is effective only when the BM sensor is enabled.

Sets adjustment values(s) for the printer operations specified by a.

- pL and pH specifies the number of the parameter such as a to (pL + (pH × 256))bytes.
- a specifies setting values for the positions to start printing and cutting

a	Function
1	Setting value for the positions to start the printing.
2	Setting value for the positions to start the cutting.

- m specifies the direction of the adjustment.

m	Function
0,48	Specifies a forward paper feeding direction
1,49	Specifies a backward paper feeding direction.

- nL and nH specifies the setting value to [(nL + nH × 256) × 0.125 mm].
- The adjustment value for the print starting position (a = 1) is affected with the following commands: G S F F
- The adjustment value for the paper cutting position (a = 2) is affected with thefollowing commands:**GS V m n**

[Default] All adjustment values are set to “0”.

(At the factory setting, the print starting position and the cutting position are set to the head position and the cutter position respectively when the BM sensor detects the BM.)

[Reference] GS FF**, GS V**

① GS V m ② GS V m n(for cut)

[Name] Select cut mode and cut paper

[Format]

①ASCII	GS	V	m	
Hex	1D	56	m	
Decimal	29	86	m	
②ASCII	GS	V	m	n

Hex 1D 56 m n
Decimal 29 86 m n

[Range] ①m = 1, 49
②m = 66, 0 ≤ n ≤ 255

[Description] Selects a mode for cutting paper and executes paper cutting. The value of m selects the mode as follows:

m	Print mode
1, 49	Partial cut (one point left uncut)
66	Feeds paper (cutting position + [n ×0.125 mm]), and cuts the paper partially (one point left uncut).

[Notes for ① and ②]

- Cutting status is different, depending on the installed autocutter type.
- This command is effective only when processed at the beginning of a line.

[Note for ①] • Only the partial cut is available; there is no full cut.

[Notes for ②] • When n = 0, the printer feeds the paper to the cutting position and cuts it.

- When n ≠0, the printer feeds the paper to (cutting position + [n × 0.125 mm (0.0049")]) and cuts it.
- When the BM sensor is set to be effective with DIP switch 1-1, [(Value which is set by **GS (F**) + 0.125mm] is applied.

FS C(for CB65C)

[Name] Start receive buffer count
[Format] ASCII FS C
Hex 1C 43
Decimal 28 67
[Description] Start receive buffer count.

FS S(for CB65C)

[Name] Start send buffer count
[Format] ASCII FS S
Hex 1C 53
Decimal 28 83
[Description] Send count of receive buffer, include this command's 2 bytes.

FS s(for XBLY)

[Name]	Save print parater		
[Format]	ASCII	FS	s
	Hex	1C	73
	Decimal	28	115
[Description]	Save print parater.		

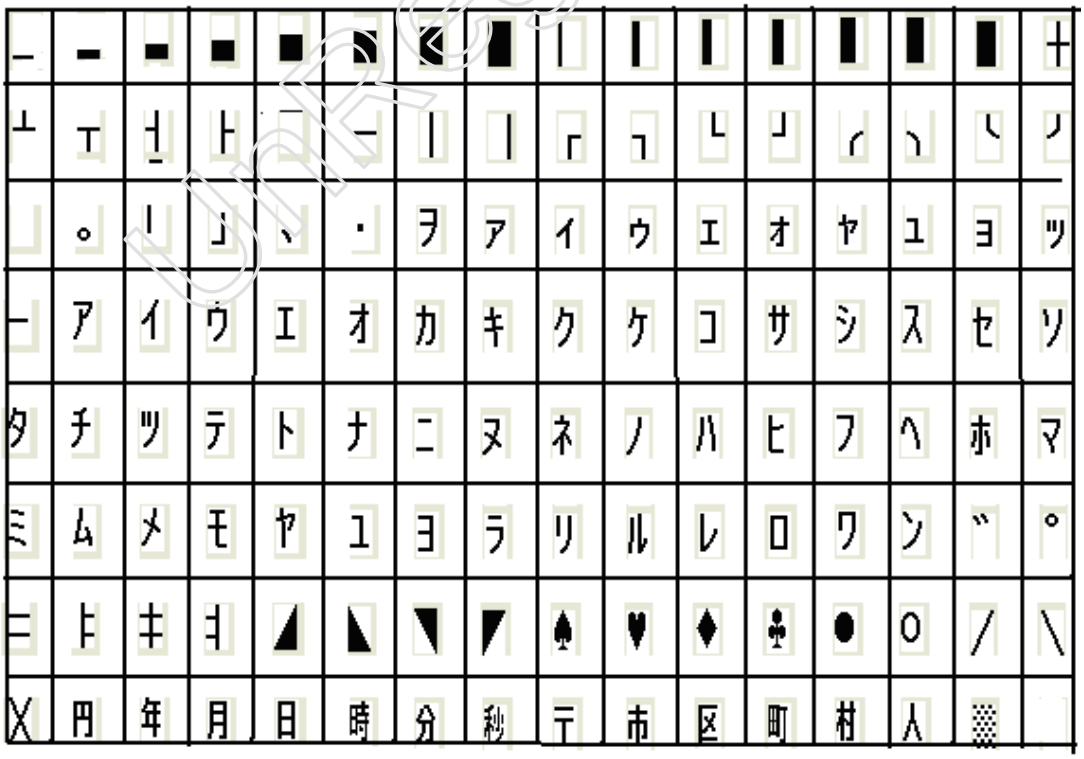
FS d(for XBLY)

[Name]	Load default leaving factory set		
[Format]	ASCII	FS	d
	Hex	1C	64
	Decimal	28	100
[Description]	Load default leaving factory set .		

Page0 PC437 Page3 CP860 [Portuguese]

Code page 437																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	Ç	ü	é	â	ä	à	å	ç	ê	ë	è	ï	î	ì	Ä	Å
9_	É	æ	Æ	ô	ö	ò	û	ù	ÿ	Ö	Ü	¢	£	¥	₱	ƒ
A_	á	í	ó	ú	ñ	Ñ	ª	º	¿	⌐	¬	½	¼	¡	«	»
B_	░	▒	▓	│	┤	╡	╢	╖	╕	╣	║	╗	╝	╜	╛	┐
C_	└	┴	┬	├	─	┼	╞	╟	╚	╔	╩	╦	╠	═	╬	╧
D_	╨	╤	╥	╙	╘	╒	╓	╫	╪	┘	┌	◢	▬	▮	▌	■
E_	α	ß	Γ	π	Σ	σ	µ	τ	Φ	Θ	Ω	δ	∞	φ	ε	∩
F_	≡	±	≥	≤	⌠	⌡	÷	≈	°	∙	·	√	n	2	■	

Page 1 Katakana



Page2 PC850[Multilingual]

Code page 850															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	Ç	ü	é	â	ä	à	å	ç	ê	ë	è	ï	î	ì	Ä	Å
9_	É	æ	Æ	ô	ö	ò	û	ù	ÿ	Ö	Ü	ø	£	Ø	×	ƒ
A_	á	í	ó	ú	ñ	Ñ	ª	º	¿	®	¬	½	¼	¡	«	»
B_	░	▒	▓	│	┤	Á	Â	À	©	╣	║	╗	╝	¢	¥	┐
C_	└	┴	┬	├	─	┼	ã	Ã	╚	╔	╩	╦	╠	═	╬	¤
D_	ð	Ð	Ê	Ë	È	ı	Í	Î	Ï	┘	┌	█	▄	¦	Ì	▀
E_	Ó	ß	Ô	Ò	õ	Õ	µ	þ	Þ	Ú	Û	Ù	ý	Ý	¯	´
F_		±	‗	¾	¶	§	÷	¸	°	¨	·	¹	³	²	■	

Page3 PC860[Portuguese]

Code page 860																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	Ç	ü	é	â	ã	à	Á	ç	ê	Ê	è	Í	Ô	ì	Ã	Â
9_	É	À	È	ô	õ	ò	Ú	ù	Ì	Õ	Ü	¢	£	Ù	₧	Ó
A_	á	í	ó	ú	ñ	Ñ	ª	º	¿	Ò	¬	½	¼	¡	«	»
B_	░	▒	▓	│	┤	╡	╢	╖	╕	╣	║	╗	╝	╜	╛	┐
C_	└	┴	┬	├	─	┼	╞	╟	╚	╔	╩	╦	╠	═	╬	╧
D_	╨	╤	╥	╙	╘	╒	╓	╫	╪	┘	┌	█	▄	▌	▐	▀
E_	α	ß	Γ	π	Σ	σ	µ	τ	Φ	Θ	Ω	δ	∞	φ	ε	∩
F_	≡	±	≥	≤	⌠	⌡	÷	≈	°	∙	·	√	ⁿ	²	■	

Page4 PC863[Canadian-French]

Code page 863															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	Ç	ü	é	â	Â	à	¶	ç	ê	ë	è	ï	î	₌	À	§
9_	É	È	Ê	ô	Ë	Ï	û	ù	¤	Ô	Ü	¢	£	Ù	Û	ƒ
A_	¦	´	ó	ú	¨	¸	³	¯	Î	⌐	¬	½	¼	¾	«	»
B_	░	▒	▓	│	┤	╡	╢	╖	╕	╣	║	╗	╝	╜	╛	┐
C_	└	┴	┬	├	─	┼	╞	╟	╚	╔	╩	╦	╠	═	╬	╧
D_	╨	╤	╥	╙	╘	╒	╓	╫	╪	┘	┌	▒	▄	▌	▐	▀
E_	α	ß	Γ	π	Σ	σ	µ	τ	Φ	Θ	Ω	δ	∞	φ	ε	∩
F_	≡	±	≥	≤	⌠	⌡	÷	≈	°	∙	·	√	ⁿ	²	■	

Page5 pc865[Nordic]

Code page 865																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	Ç	ü	é	â	ä	à	å	ç	ê	ë	è	ï	î	ì	Ä	Å
9_	É	æ	Æ	ô	ö	ò	û	ù	ÿ	Ö	Ü	ø	£	Ø	₧	ƒ
A_	á	í	ó	ú	ñ	Ñ	ª	º	¿	⌐	¬	½	¼	¡	«	¤
B_	░	▒	▓	│	┤	╡	╢	╖	╕	╣	║	╗	╝	╜	╛	┐
C_	└	┴	┬	├	─	┼	╞	╟	╚	╔	╩	╦	╠	═	╬	╧
D_	╨	╤	╥	╙	╘	╒	╓	╫	╪	┘	┌	▒	▄	▌	▐	▀
E_	α	ß	Γ	π	Σ	σ	µ	τ	Φ	Θ	Ω	δ	∞	ϕ	ε	∩
F_	≡	±	≥	≤	⌠	⌡	÷	≈	°	∙	·	√	ⁿ	²	■	

Page6 pc1251 [Cyrillic]

Code page 1251															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	Ђ	Ѓ	‚	ѓ	„	…	†	‡	€	‰	Љ	‹	Њ	Ќ	Ћ	Џ
9_	ђ	‘	’	“	”	•	-	—		™	љ	›	њ	ќ	ћ	џ
A_		Ў	ў	Ј	¤	Ґ	¦	§	Ё	©	Є	«	¬	-	®	Ї
B_	°	±	І	і	ґ	µ	¶	·	ё	№	є	»	ј	Ѕ	ѕ	ї
C_	А	Б	В	Г	Д	Е	Ж	З	И	Й	К	Л	М	Н	О	П
D_	Р	С	Т	У	Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э	Ю	Я
E_	а	б	в	г	д	е	ж	з	и	й	к	л	м	н	о	п
F_	р	с	т	у	ф	х	ц	ч	ш	щ	ъ	ы	ь	э	ю	я

Page7 pc866 Cyrilliec #2

Code page 866																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	А	Б	В	Г	Д	Е	Ж	З	И	Й	К	Л	М	Н	О	П
9_	Р	С	Т	У	Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э	Ю	
A_	а	б	в	г	д	е	ж	з	и	й	к	л	м	н	о	п
B_	░	▒	▓	│	┤	╡	╢	╖	╕	╣	║	╗	╝	╜	╛	┐
C_	└	┴	┬	├	─	┼	╞	╟	╚	╔	╩	╦	╠	═	╬	╧
D_	╨	╤	╥	╙	╘	╒	╓	╫	╪	┘	┌	█	▄	▌	▐	▀
E_	р	с	т	у	ф	х	ц	ч	ш	щ	ъ	ы	ь	э	ю	я
F_	Ё	ё	Є	є	Ї	ї	Ў	ў	°	∙	·	√	№	¤	■	

Page8 MIK[Cyrillic /**Bulgarian**]

Code page MIK															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	А	Б	В	Г	Д	Е	Ж	З	И	Й	К	Л	М	Н	О	П
9_	Р	С	Т	У	Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э	Ю	Я
A_	а	б	в	г	д	е	ж	з	и	й	к	л	м	н	о	п
B_	р	с	т	у	ф	х	ц	ч	ш	щ	ъ	ы	ь	э	ю	я
C_	└	┴	┬	├	─	┼	╡	‖	╚	╒	╩	╦	╠	═	╬	┐
D_	▒	▒	▓	│	┤	№	§	╕	╝	┘	┌	▟	▄	▌	▐	■
E_	α	ß	Γ	π	Σ	σ	µ	τ	Φ	Θ	Ω	δ	∞	φ	ε	∩
F_	≡	±	≥	≤	⌠	⌡	÷	≈	°	∙	·	√	ⁿ	²	■	

Page9 CP755

Code page 755																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	А	Б	В	Г	Д	Е	Ж	З	И	Й	К	Л	М	Н	О	П
9_	Р	С	Т	У	Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э	Ю	Я
A_	а	б	в	г	д	е	ж	з	и	й	к	л	м	н	о	п
B_	▒	▒	▓	│	┤	Ā	╣	╖	╕	╡	‖	╗	╝	╜	╛	┐
C_	└	┴	┬	├	─	┼	ā	‖	╚	╒	╩	╦	╠	═	╬	╧
D_	Š	╥	č	Č	╙	╓	ģ	Ī	ī	┘	┌	▉	▄	ū	Ū	▀
E_	р	с	т	у	ф	х	ц	ч	ш	щ	ъ	ы	ь	э	ю	я
F_	Ē	ē	Ģ	Ķ	K	ļ	Ļ	Ž	ž	∙	·	√	N	Š	■	

Page10 Iran

Code page Iran																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	۰	۱	۲	۳	۴	۵	۶	۷	۸	۹	،	ـ	؟F	آ	ئ	ء
9_	ا	ـا	ب	بـ	پ	پـ	ت	تـ	ث	ثـ	ج	جـ*	چc*	چ	ح	حـ
A_	خ	خـ	د	ذ	ر	ز	ژ	س	سـ	ش	شـ	ص	صـ	ض	ضـ	ط
B_	▒	▒	▓	┃	┤	╡	╢	╖	╕	╣	║	╗		╝	╜	┐
C_	└	┴	┬	├	─	┼	╞	╟	╚	╔	╩	╦	╠	═	╬	╧
D_	╨	╤	╥	╙	╘	╒	╓	╫	╪	┘	┌	▀	▄	▌	▐	■
E_	ظ	ع	عـ	ـعـ	ـع	غ	غـ	ـغـ	ـغ	فـ	ف	ق	قـ	ک	کـ	گ
F_	گـ	ل	لا	لـ	م	مـ	ن	نـ	و	ه	هـ	ھ	ی	ی	یـ	

Page15 CP862 [Hebrew]

Code page 862																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	א	ב	ג	ד	ה	ו	ז	ח	ט	י	ך	כ	ל	ם	מ	ן
9_	נ	ס	ע	ף	פ	ץ	צ	ק	ר	ש	ת	¢	£	¥	₧	ƒ
A_	á	í	ó	ú	ñ	Ñ	ª	º	¿	⌐	¬	½	¼	¡	«	»
B_	▒	▒	▓	┃	┤	╡	╢	╖	╕	╣	║	╗	╝	╜	╛	┐
C_	└	┴	┬	├	─	┼	╞	╟	╚	╔	╩	╦	╠	═	╬	╧
D_	╨	╤	╥	╙	╘	╒	╓	╫	╪	┘	┌	▀	▄	▌	▐	■
E_	α	ß	Γ	π	Σ	σ	µ	τ	Φ	Θ	Ω	δ	∞	φ	ε	∩
F_	≡	±	≥	≤	⌠	⌡	÷	≈	°	∙	·	√	n	2	■	

Page 16 PC1252 Latin 1

Code page 1252																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	€		‚	ƒ	„	…	†	‡	ˆ	‰	Š	‹	Œ		Ž	
9_		‘	’	“	”	•	–	—	˜	™	š	›	œ		ž	Ÿ
A_		¡	¢	£	¤	¥	¦	§	¨	©	ª	«	¬		®	¯
B_	°	±	²	³	´	µ	¶	·	¸	¹	º	»	¼	½	¾	¿
C_	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
D_	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
E_	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
F_	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

Page 17 WCP1253 [Greek]

Code page 1253																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	€		‚	ƒ	„	…	†	‡		‰		‹				
9_		‘	’	“	”	•	–	—		™		›				
A_		΅	Ά	£	¤	¥	¦	§	¨	©		«	¬		®	―
B_	°	±	²	³	΄	µ	¶	·	Έ	Ή	Ί	»	Ό	½	Ύ	Ώ
C_	ΐ	Α	Β	Γ	Δ	Ε	Ζ	Η	Θ	Ι	Κ	Λ	Μ	Ν	Ξ	Ο
D_	Π	Ρ		Σ	Τ	Υ	Φ	Χ	Ψ	Ω	Ϊ	Ϋ	ά	έ	ή	ί
E_	ΰ	α	β	γ	δ	ε	ζ	η	θ	ι	κ	λ	μ	ν	ξ	ο
F_	π	ρ	ς	σ	τ	υ	φ	χ	ψ	ω	ϊ	ϋ	ό	ύ	ώ	

Page18 PC852

Code page 852															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	Ç	ü	é	â	ä	ů	ć	ç	ł	ë	Ő	ő	Î	Ź	Ä	Ć
9_	É	Ĺ	í	ô	ö	Ľ	ľ	Ś	ś	Ö	Ü	Ť	ť	Ł	×	Č
A_	á	Í	ó	ú	Ą	ą	Ž	ž	Ę	ę		ź	Č	ş	«	»
B_	░	▒	▓	│	┤	Á	Â	Ě	Ş	╣	║	╗	╝	Ż	ż	┐
C_	└	┴	┬	├	─	┼	Ă	ă	╚	╔	╩	╦	╠	═	╬	¤
D_	đ	Đ	Ď	Ë	ď	Ň	Í	Î	ě	┘	┌	▀	▄	Ţ	Ů	■
E_	Ó	ß	Ô	Ń	ń	ň	Š	š	Ŕ	Ú	ŕ	Ű	ý	Ý	ţ	´	˝	˛	ˇ	˘	§	÷	¸	°	¨	˙	ű	Ř	ř	■	

Page19 PC858 (Multilingual Latin I +Euro)

Code page 858															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	Ç	ü	é	â	ä	à	å	ç	ê	ë	è	ï	î	ì	Ä	Å
9_	É	æ	Æ	ô	ö	ò	û	ù	ÿ	Ö	Ü	ø	£	Ø	×	ƒ
A_	á	í	ó	ú	ñ	Ñ	ª	º	¿	®	¬	½	¼	¡	«	»
B_	░	▒	▓	│	┤	Á	Â	À	©	╣	║	╗	╝	¢	¥	┐
C_	└	┴	┬	├	─	┼	ã	Ã	╚	╔	╩	╦	╠	═	╬	¤
D_	ð	Ð	Ê	Ë	È	€	Í	Î	Ï	┘	┌	■	▄	¦	Ì	■
E_	Ó	ß	Ô	Ò	õ	Õ	µ	þ	Þ	Ú	Û	Ù	ý	Ý	¯	´		±	‗	¾	¶	§	÷	¸	°	¨	·	¹	³	²	■	

Page20 Iran II

Code page Iran II															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	۰	۱	۲	۳	۴	۵	۶	۷	۸	۹	،	ـ	؟	آ	ئ	ء
9_	ا	ـا	ب	بـ	پ	پـ	ت	تـ	ث	ثـ	ج	جـ	چ	چـ	ح	حـ
A_	خ	خـ	د	ذ	ر	ز	ژ	س	سـ	ش	شـ	ص	صـ	ض	ضـ	ط
B_	▒	▒	▒	┃	┤	┥	┫	┐	┑	┩	┃	┓		┛	┙	┒
C_	└	┴	┬	├	─	┼	┣	┠	┖	┎	┵	┭	┽	═	╪	┸
D_	┻	┯	┳	╙	┗	┍	┏	╪	┿	┘	┌	▰	▬	▮	▌	■
E_	ظ	ع	عـ	ـعـ	ـع	غ	غـ	ـغـ	ـغ	ف	فـ	ق	قـ	ك	کـ	گ
F_	گـ	ل	لا	لـ	م	مـ	ن	نـ	و	ه	هـ	ھ	ی	ی	یـ	

Page21 Latvian

Code page Latvian																
	_0	_1	_2	_3	_4	_5	6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	А	Б	В	Г	Д	Ғ	Ж	З	И	Й	К	Л	М	Н	О	П
9_	Р	С	Т	У	Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э	Ю	Я
A_	а	б	в	г	д	е	ж	з	и	ӣ	к	л	м	н	о	п
B_						А		ŋ						Ō		
C_							ā									
D_	Š		č	Č	Ī	ī								ū	Ū	
E_	р	с	т	у	ф	х	ц	ч	ш	щ	ъ	ы	ь	э	ю	я
F_	Ē	ē	Ģ	к	К	⌠	⌡	Ž	ž	ō			N	Š		

Page22 CP864 [Arabic]

Code page 864															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	°	∙	·	√	▒	─	│	┼	┤	┬	├	┴	┐	┌	└	┘
9_	β	∞	φ	±	½	¼	≈	«	»	ﻷ	ﻹ			ﻻ	ﻺ	
A_			ﺂ	£	¤	ﺃ			ﺎ	ب	ت	ث	،	ج	ح	خ
B_	٠	١	٢	٣	٤	٥	٦	٧	٨	٩	ف	؛	س	ش	ص	؟
C_	¢	ء	آ	أ	ؤ	ع	ئ	ا	ب	ة	ت	ث	ج	ح	خ	د
D_	ذ	ر	ز	س	ش	ص	ض	ط	ظ	ع	غ	¦	¬	÷	×	ع
E_	ـ	ف	ق	ك	ل	م	ن	ه	و	ى	ي	ض	ع	غ	غ	م
F_	ﺱ	ﺱ	ن	ه	ﻫ	ى	ي	ﻍ	ق	ﻵ	ﻷ	ل	ك	ي	■	

Page23 ISO-8859-1 [West Europe]

Code page 8859-1																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	€		Ⅱ	Ⅲ	Ⅳ		↑	↓		‰	Š	<	Œ			
9_						Ⅴ	Ⅵ				Š	>	œ			Ÿ
A_		¡	¢	£	¤	¥	¦	§	¨	©	ª	«	¬	-	®	¯
B_	°	±	²	³	”	µ	¶	·	¸	¹	º	»	¼	½	¾	¿
C_	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
D_	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
E_	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
F_	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

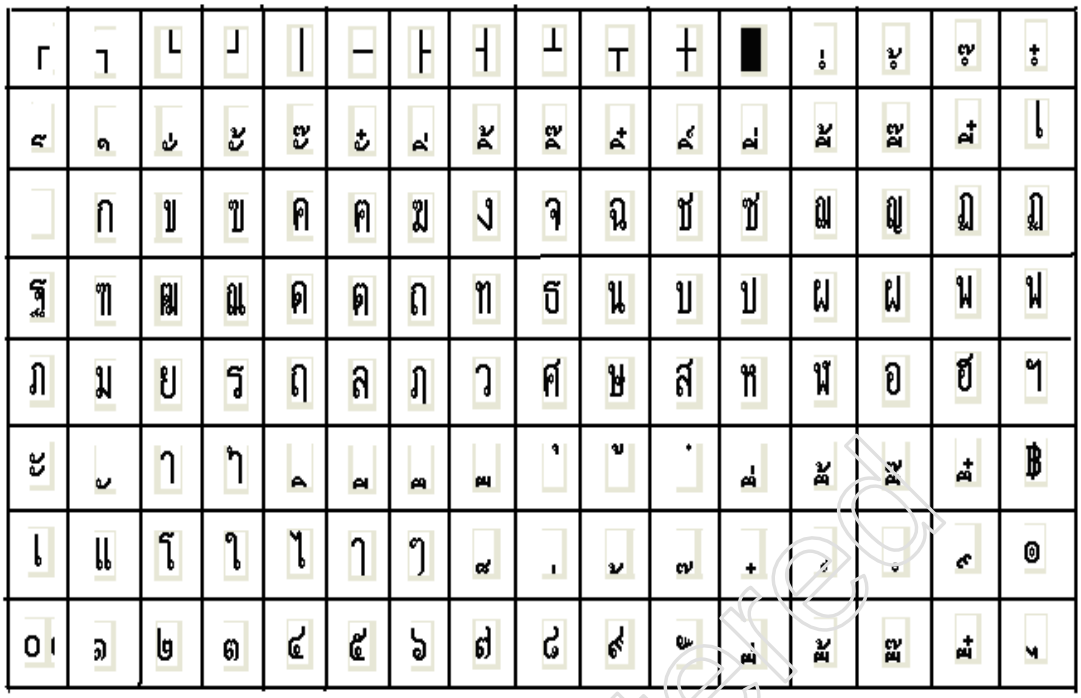
Page24 CP737 [Greek]

Code page 737															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	Α	Β	Γ	Δ	Ε	Ζ	Η	Θ	Ι	Κ	Λ	Μ	Ν	Ξ	Ο	Π
9_	Ρ	Σ	Τ	Υ	Φ	Χ	Ψ	Ω	α	β	γ	δ	ε	ζ	η	θ
A_	ι	κ	λ	μ	ν	ξ	ο	π	ρ	σ	ς	τ	υ	φ	χ	ψ
B_	░	▒	▓	│	┤	╡	╢	╖	╕	╣	║	╗	╝	╜	╛	┐
C_	└	┴	┬	├	─	┼	╞	╟	╚	╔	╩	╦	╠	═	╬	╧
D_	╨	╤	╥	╙	╘	╒	╓	╫	╪	┘	┌	▀	▄	▌	▐	■
E_	ω	ά	έ	ή	ϊ	ί	ό	ύ	ϋ	ώ	Ά	Έ	Ή	Ί	Ό	Ύ
F_	Ώ	±	≥	≤	Ϊ	Ϋ	÷	≈	°	∙	·	√	ⁿ	²	■	

Page25 WCP1257 [Baltic]

Code page 1257																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	€		‚		„	…	†	‡		‰		‹		¨	ˇ	¸
9_		‘	’	“	”	•	–	—		™		›		¯	˛	
A_			¢	£	¤		¦	§	Ø	©	Ŗ	«	¬	-	®	Æ
B_	°	±	²	³	´	µ	¶	·	ø	¹	ŗ	»	¼	½	¾	æ
C_	Ą	Į	Ā	Ć	Ä	Å	Ę	Ē	Č	É	Ź	Ė	Ģ	Ķ	Ī	Ļ
D_	Š	Ń	Ņ	Ó	Ō	Õ	Ö	×	Ų	Ł	Ś	Ū	Ü	Ż	Ž	ß
E_	ą	į	ā	ć	ä	å	ę	ē	č	é	ź	ė	ģ	ķ	ī	ļ
F_	š	ń	ņ	ó	ō	õ	ö	÷	ų	ł	ś	ū	ü	ż	ž	˙

Page26 Thai



Page27 CP720[Arabic]

Code page 720																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_			é	â		à		ç	ê	ë	è	ï	î			
9_		س	°	Ő	¤	ـ	û	ù	ء	آ	أ	ؤ	£	إ	ئ	ا
A_	ب	ة	ت	ث	ج	ح	خ	د	ذ	ر	ز	س	ش	ص	«	»
B_	░	▒	▓	│	┤	╡	╢	╖	╕	╣	║	╗	╝	╜	╛	┐
C_	└	┴	┬	├	─	┼	╞	╟	╚	╔	╩	╦	╠	═	╬	╧
D_	╨	╤	╥	╙	╘	╒	╓	╫	╪	┘	┌	█	▄	▌	▐	▀
E_	ض	ط	ظ	ع	غ	ف	µ	ق	ك	ل	م	ن	ه	و	ى	ي
F_	≡	ً	ٌ	ٍ	َ	ُ	ِ	≈	°	∙	·	√	n	2	■	

Page28 CP855

Code page 855															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	ђ	Ђ	ѓ	Ѓ	ё	Ё	є	Є	ѕ	Ѕ	і	І	ї	Ї	ј	Ј
9_	љ	Љ	њ	Њ	ћ	Ћ	ќ	Ќ	ў	Ў	џ	Џ	ю	Ю	ъ	Ъ
A_	а	А	б	Б	ц	Ц	д	Д	е	Е	ф	Ф	г	Г	«	»
B_	░	▒	▓	│	┤	х	Х	и	И	╣	║	╗	╝	й	Й	┐
C_	└	┴	┬	├	─	┼	к	К	╚	╔	╩	╦	╠	═	╬	¤
D_	л	Л	м	М	н	Н	о	О	п	┘	┌			П	я	▀
E_	Я	Р	р	с	С	т	Т	у	У	ж	Ж	в	В	ь	Ь	№
F_		ы	Ы	з	З	ш	Ш	э	Э	щ	Щ	ч	Ч	§	■	

Page29 PC857[Turkish]

Code page 857																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	Ç	ü	é	â	ä	à	å	ç	ê	ë	è	ï	î	I	Ä	Å
9_	É	æ	Æ	ô	ö	ò	û	ù	İ	Ö	Ü	ø	£	Ø	Ş	ş
A_	á	í	ó	ú	ñ	Ñ	Ğ	ğ	¿	®	¬	½	¼	¡	«	»
B_	░	▒	▓	│	┤	Á	Â	À	©	╣	║	╗	╝	¢	¥	┐
C_	└	┴	┬	├	─	┼	ã	Ã	╚	╔	╩	╦	╠	═	╬	¤
D_	º	ª	Ê	Ë	È		Í	Î	Ï	┘	┌			¦	Ì	▀
E_	Ó	ß	Ô	Ò	õ	Õ	µ		×	Ú	Û	Ù	ì	ÿ	¯	´
F_		±		¾	¶	§	÷	¸	°	¨	•	¹	³	²	■	

Page30 WCP1250[Central Eurpoe]

Code page-1250															
	–0	–1	–2	–3	–4	–5	–6	–7	–8	–9	–A	–B	–C	–D	–E	–F
8_	€		‚		„	…	†	‡		‰	Š	‹	Ś	Ť	Ž	Ź
9_		‘	’	“	”	•	–	—		™	š	›	ś	ť	ž	ź
A_		ˇ	˘	Ł	¤	Ą	¦	§	¨	©	Ş	«	¬	-	®	Ż
B_	°	±	˛	ł	´	µ	¶	·	¸	ą	ş	»	Ľ	˝	ľ	ż
C_	Ŕ	Á	Â	Ă	Ä	Ĺ	Ć	Ç	Č	É	Ę	Ë	Ě	Í	Î	Ď
D_	Đ	Ń	Ň	Ó	Ô	Ő	Ö	×	Ř	Ů	Ú	Ű	Ü	Ý	Ţ	ß
E_	ŕ	á	â	ă	ä	ĺ	ć	ç	č	é	ę	ë	ě	í	î	ď
F_	đ	ń	ň	ó	ô	ő	ö	÷	ř	ů	ú	ű	ü	ý	ţ	˙

Page31 CP775

Code page 775																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	Ć	ü	é	ā	ä	ģ	å	ć	ł	ē	Ŗ	ŗ	ī	Ź	Ä	Å
9_	É	æ	Æ	ō	ö	Ģ	¢	Ś	ś	Ö	Ü	ø	£	Ø	×	¤
A_	Ā	Ī	ó	Ż	ż	ź	”	¦	©	®	¬	½	¼	Ł	«	»
B_	░	▒	▓	│	┤	Ą	Č	Ę	Ė	╣	║	╗	╝	Į	Š	┐
C_	└	┴	┬	├	─	┼	Ų	Ū	╚	╔	╩	╦	╠	═	╬	Ž
D_	ą	č	ę	ė	į	š	ų	ū	ž	┘	┌	█	▄	▌	▐	■
E_	Ó	ß	Ō	Ń	õ	Õ	µ	ń	Ķ	ķ	Ļ	ļ	ņ	Ē	Ņ	’
F_	–	±	‗	¾	¶	§	÷	„	°	∙	·	¹	³	²	■	

Page32 WCP1254[Turkish]

Code page-1254																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	€		‚	ƒ	„	…	†	‡	ˆ	‰	Š	‹	Œ			
9_		‘	’	“	”	•	–	—	˜	™	š	›	œ			Ÿ
A_		¡	¢	£	¤	¥	¦	§	¨	©	ª	«	¬	-	®	¯
B_	°	±	2	3	´	µ	¶	·	¸	1	º	»	¼	½	¾	¿
C_	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
D_	Ğ	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	İ	Ş	ß
E_	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
F_	ğ	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ı	ş	ÿ

Page33 WCP1255[Hebrew]

Code page-1255																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	€		‚	ƒ	„	…	†	‡	ˆ	‰		‹				
9_		‘	’	“	”	•	–	—	˜	™		›				
A_		¡	¢	£	₪	¥	¦	§	¨	©	×	«	¬	–	®	¯
B_	°	±	2	3	´	µ	¶	·	¸	1	÷	»	¼	½	¾	¿
C_	ְ	ֱ	ֲ	ֳ	ִ	ֵ	ֶ	ַ	ָ	ֹ		ֻ	ּ	ֽ	־	ֿ
D_	׀	ׁ	ׂ	׃	ׄ	ׅ	׆	ׇ								
E_	א	ב	ג	ד	ה	ו	ז	ח	ט	י	ך	כ	ל	ם	מ	ן
F_	נ	ס	ע	ף	פ	ץ	צ	ק	ר	ש	ת					

Page34 WCP1256[Arabic]

Code page-1256																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	€	پ	‚	ƒ	„	…	†	‡	ˆ	‰	ٹ	‹	Œ	چ	ژ	ڈ
9_	گ	‘	’	“	”	•	–	—	ک	™	ڑ	›	œ			ں
A_		،	¢	£	¤	¥	¦	§	¨	©	ھ	«	¬	-	®	¯
B_	°	±	²	³	´	µ	¶	·	¸	¹	؛	»	¼	½	¾	؟
C_	ہ	ء	آ	أ	ؤ	إ	ئ	ا	ب	ة	ت	ث	ج	ح	خ	د
D_	ذ	ر	ز	س	ش	ص	ض	×	ط	ظ	ع	غ	ـ	ف	ق	ك
E_	à	ل	â	م	ن	ه	و	ç	è	é	ê	ë	ى	ي	î	ï
F_	ً	ٌ	ٍ	َ	ô	ُ	ِ	÷	ّ	ù	ْ	û	ü			ے

Page35 WCP1258[Vietnam]

Code page-1258																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	€		‚	ƒ	„	…	†	‡	ˆ	‰		‹	Œ			
9_		‘	’	“	”	•	–	—	˜	™		›	œ			Ÿ
A_		¡	¢	£	¤	¥	¦	§	¨	©	ª	«	¬	-	®	¯
B_	°	±	²	³	´	µ	¶	·	¸	¹	º	»	¼	½	¾	¿
C_	À	Á	Â	Ă	Ä	Å	Æ	Ç	È	É	Ê	Ë	̀	Í	Î	Ï
D_	Đ	Ñ	̉	Ó	Ô	Ơ	Ö	×	Ø	Ù	Ú	Û	Ü	Ư	̃	ß
E_	à	á	â	ă	ä	å	æ	ç	è	é	ê	ë	́	í	î	ï
F_	đ	ñ	̣	ó	ô	ơ	ö	÷	ø	ù	ú	û	ü	ư	₫	ÿ

Page36 ISO-8859-2[**Latin 2**]

Code page-8859-2															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_																
9_																
A_		Ą	˘	Ł	¤	Ľ	Ś	§	¨	Š	Ş	Ť	Ź	-	Ž	Ż
B_	°	ą	˛	ł	´	ľ	ś	ˇ	¸	š	ş	ť	ź	˝	ž	ż
C_	Ŕ	Á	Â	Ă	Ä	Ĺ	Ć	Ç	Č	É	Ę	Ë	Ě	Í	Î	Ď
D_	Đ	Ń	Ň	Ó	Ô	Ő	Ö	×	Ř	Ů	Ú	Ű	Ü	Ý	Ţ	ß
E_	ŕ	á	â	ă	ä	ĺ	ć	ç	č	é	ę	ë	ě	í	î	ď
F_	đ	ń	ň	ó	ô	ő	ö	÷	ř	ů	ú	ű	ü	ý	ţ	˙

Page37 ISO-8859-3[**Latin 3**]

Code page-8859-3															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_																
9_																
A_		Ħ	˘	£	¤		Ĥ	§	¨	İ	Ş	Ğ	Ĵ	-		Ż
B_	°	ħ	²	³	´	µ	ĥ	·	¸	ı	ş	ğ	ĵ	½		ż
C_	À	Á	Â		Ä	Ċ	Ĉ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
D_		Ñ	Ò	Ó	Ô	Ġ	Ö	×	Ĝ	Ù	Ú	Û	Ü	Ŭ	Ŝ	ß
E_	à	á	â		ä	ċ	ĉ	ç	è	é	ê	ë	ì	í	î	ï
F_		ñ	ò	ó	ô	ġ	ö	÷	ĝ	ù	ú	û	ü	ŭ	ŝ	˙

Page38 ISO-8859-4[Baltic]

Code page-8859-4															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_																
9_																
A_		Ą	ĸ	Ŗ	¤	Ĩ	Ļ	§	¨	Š	Ē	Ģ	Ŧ	-	Ž	¯
B_	°	ą	˛	ŗ	´	ĩ	ļ	ˇ	¸	š	ē	ģ	ŧ	Ŋ	ž	ŋ
C_	Ā	Á	Â	Ã	Ä	Å	Æ	Į	Č	É	Ę	Ë	Ė	Í	Î	Ī
D_	Đ	Ņ	Ō	Ķ	Ô	Õ	Ö	×	Ø	Ų	Ú	Û	Ü	Ũ	Ū	ß
E_	ā	á	â	ã	ä	å	æ	į	č	é	ę	ë	ė	í	î	ī
F_	đ	ņ	ō	ķ	ô	õ	ö	÷	ø	ų	ú	û	ü	ũ	ū	˙

Page39 ISO-8859-5[Cyrillic]

Code page-8859-5																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_																
9_																
A_		Ё	Ђ	Ѓ	Є	S	I	Ї	J	Љ	Њ	Ћ	Ќ	-	ў	Џ
B_	А	Б	В	Г	Д	Е	Ж	З	И	Й	К	Л	М	Н	О	П
C_	Р	С	Т	У	Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э	Ю	Я
D_	а	б	в	г	д	е	ж	з	и	й	к	л	м	н	о	п
E_	р	с	т	у	ф	х	ц	ч	ш	щ	ъ	ы	ь	э	ю	я
F_	№	ё	ђ	ѓ	є	s	i	ї	j	љ	њ	ћ	ќ	§	ў	џ

Page40 ISO-8859-6[Arabic]

Code page-8859-6															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_																
9_																
A_					¤								،	ـ		
B_												؛				؟
C_		ء	آ	أ	ؤ	إ	ئ	ا	ب	ة	ت	ث	ج	ح	خ	د
D_	ذ	ر	ز	س	ش	ص	ض	ط	ظ	ع	غ					،
E_	ـ	ف	ق	ك	ل	م	ن	ه	و	ى	ي	ً	ٌ	ٍ	َ	ُ
F_	ِ	ّ	ْ													

Page41 ISO-8859-7[Greek]

Code page-8859-7																
	_0	_1	_2	_3	_4	5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_																
9_																
A_		‘	’	£			¦	§	¨	©	ͺ	«	¬	―		―
B_	°	±	²	³	΄	΅	Ά	·	Έ	Ή	Ί	»	Ό	½	Ύ	Ώ
C_	ΐ	Α	Β	Γ	Δ	Ε	Ζ	Η	Θ	Ι	Κ	Λ	Μ	Ν	Ξ	Ο
D_	Π	Ρ		Σ	Τ	Υ	Φ	Χ	Ψ	Ω	Ϊ	Ϋ	ά	έ	ή	ί
E_	ΰ	α	β	γ	δ	ε	ζ	η	θ	ι	κ	λ	μ	ν	ξ	ο
F_	π	ρ	ς	σ	τ	υ	φ	χ	ψ	ω	ί	ϋ	ό	ύ	ώ	

Page42 ISO-8859-8 [Hebrew]

Code page-8859-8																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_																
9_																
A_			¢	£	¤	¥	¦	§	¨	©	×	«	¬		®	¯
B_	°	±	2	3	´	µ	¶	·	¸	1	÷	»	¼	½	¾	
C_																
D_																‗
E_	א	ב	ג	ד	ה	ו	ז	ח	ט	י	ך	כ	ל	ם	מ	ן
F_	נ	ס	ע	ף	פ	ץ	צ	ק	ר	ש	ת					

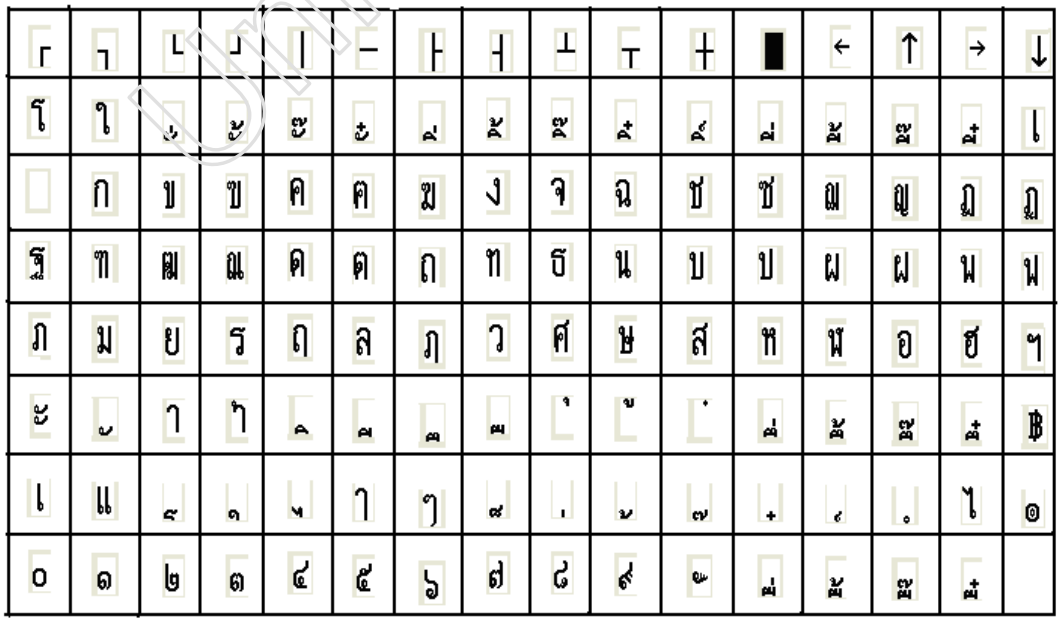
Page43 ISO-8859-9 [Turkish]

Code page-8859-9																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_																
9_																
A_		¡	¢	£	¤	¥	¦	§	¨	©	ª	«	¬		®	¯
B_	°	±	2	3	´	µ	¶	·	¸	1	º	»	¼	½	¾	¿
C_	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
D_	Ğ	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	İ	Ş	ß
E_	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
F_	ğ	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ı	ş	ÿ

Page44 ISO-8859-15 [Latin 3]

Code page-8859-15																
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_																
9_																
A_		¡	¢	£	€	¥	Š	§	š	©	ª	«	¬	-	®	¯
B_	°	±	2	3	Ž	µ	¶	·	ž	1	º	»	Œ	œ	Ÿ	¿
C_	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
D_	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
E_	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
F_	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

Page45 Thai2



Page46 CP856()

Code page 856															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	А	Б	В	Г	Д	Е	Ж	З	И	Й	К	Л	М	Н	О	П
9_	Р	С	Т	У	Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э	Ю	Я
A_	а	б	в	г	д	е	ж	з	и	й	к	л	м	н	о	п
B_	р	с	т	у	ф	х	ц	ч	ш	щ	ъ	ы	ь	э	ю	я
C_	└	┴	┬	├	─	┼	╡	╢	╚	╔	╩	╦	╠	═	╬	┐
D_	▒	▒	▒	│	┤	№	§	╕	╣	╝	┌	▒	▒	▒	▌	■
E_	α	ß	Γ	π	Σ	σ	µ	τ	Φ	Θ	Ω	δ	∞	φ	ε	∩
F_	≡	±	≥	≤	⌠	⌡	÷	≈	°	∙	·	√	n	2	■	

Page47 Cp874

Code page 874															
	_0	_1	_2	_3	_4	_5	_6	_7	_8	_9	_A	_B	_C	_D	_E	_F
8_	Ђ					…										
9_		‘	’	“	”	•	–	—								
A_		ก	ข	ฃ	ค	ฅ	ฆ	ง	จ	ฉ	ช	ซ	ฌ	ญ	ฎ	ฏ
B_	ฐ	ฑ	ฒ	ณ	ด	ต	ถ	ท	ธ	น	บ	ป	ผ	ฝ	พ	ฟ
C_	ภ	ม	ย	ร	ฤ	ล	ฦ	ว	ศ	ษ	ส	ห	ฬ	อ	ฮ	ฯ
D_	ะ	ั	า	ำ	ิ	ี	ึ	ื	ุ	ู	ฺ					฿
E_	เ	แ	โ	ใ	ไ	ๅ	ๆ	็	่	้	๊	๋	์	๎	๏	๐
F_	๑	๒	๓	๔	๕	๖	๗	๘	๙	๚	๛					

3.2.2 国际字符集

County	ASCII Code(Hex)											
	23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E
U.S.A.	#	$	@	[	\	]	^	`	{	|	}	~
France	#	$	à	◦	ç	§	^	`	é	ù	è	¨
Germany	#	$	§	Ä	Ö	Ü	^	`	ä	ö	ü	ß
U.K.	£	$	@	[	\	]	^	`	{	|	}	~
Denmark Ⅰ	#	$	@	Æ	Ø	Å	^	`	æ	ø	å	~
Sweden	#	¤	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
Italy	#	$	@	°	\	é	^	ù	à	ò	è	ì
Spain Ⅰ	Pt	$	@	¡	Ñ	¿	^	`	¨	ñ	}	~
Japan	#	$	@	[	¥	]	^	`	{	|	}	~
Norway	#	¤	É	Æ	Ø	Å	Ü	é	æ	ø	å	ü
Denmark Ⅱ	#	$	É	Æ	Ø	Å	Ü	é	æ	ø	å	ü
Spain Ⅱ	#	$	á	¡	Ñ	¿	é	`	í	ñ	ó	ú
Latin	#	$	á	¡	Ñ	¿	é	ü	í	ñ	ó	ú
Korea	#	$	@	[	₩	]	^	`	{	|	}	~
Slovenia/Croatia	#	$	Ž	Š	Đ	Ć	Č	ž	š	đ	ć	č
China	#	¥	@	[	\	]	^	`	{	|	}	~