

# Command Reference

2 inch / 3 inch High Speed KIOSK Printer

**NP-2411**

**NP-3411**

Revision 1.80 2012.01.26 9<sup>th</sup> edition

All specifications described are subject to change without prior notice.  
Though we made assurance doubly sure to write this product specifications,  
Please contact us if you find any mistakes and erroneous omitting.

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1. Application

This document describes commands and code tables for NP-2411 and NP-3411.

Please refer to the product specification for the spec and precaution for NP-2411 and NP-3411.

## 2. Commands

### 2.1 Command Table

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▲ is only enabled at selecting Japanese, Korean.

■ is only effective at Japanese.

\* In case of print method is buffer, max.printing speed will be 150mm/sec.

\* Command 49) is available to F/W version beyond 2.01.

\* Command 67) is available to F/W (F/W refers to firmware) version beyond 1.30.

\* Command 68)~72) are available to F/W version beyond 1.50.

## 2. 2 Printer Driver

Applicable to various OS

Windows XP / Vista / 7(32bit) / CE5.0 / CE6.0 Linux(only sample)

Use either one of the following drivers or newer revision (Recommend NII EX Driver)

- NII EX Driver Ver.1.0
- NiiPrinter\_DS2.0

## 2. 3 Command Details

### 1) [Horizontal Tab] 《HT》

Code : [09]h

Print position moves to the next horizontal tab position.

\*Horizontal tab position is set by [Horizontal Tab Position Setting] command.

\* Default of [Horizontal Tab Position] is every 8<sup>th</sup> character (9 digit,17 digit,25 digit· · ,41digit) in font A. (2 inch model is until 33rd digit)

\*If the next [Horizontal Tab Position] is not set, this command is disregarded.

### 2) [Print and Line Feed] 《LF》

Code : [0A]h

Prints out data inside print line buffer and activates line feed based on preset line feed quantity.

### 3) [Page Feed] 《FF》

Code : [0C]h

Prints out data inside print line buffer and feeds paper to the top of next pager based on preset page length.

\*Default of page length is [42]h (66 lines).

\*Unable to use at the same time with [Print start/finish Setting] command.

### 4) [Carriage Return] 《CR》

Code : [0D]h

\* This command is disregarded.

### 5) [Software Reset] 《DC1》

Code : (11)h

Restarts firmware as same process when turning the power ON.

\*Since this command will be stored in internal reception input buffer and executes sequentially, timing of command receipt and execution will be different.

\* During cutter movement, software reset will be activated after end of the auto-cutter movement.

### 6) [Barcode Termination Change] 《ESC RS c n》

Code : [1B]h+[1E]h+[63]+n \* [n=00, 80]h

Change termination of [Barcode print] command with “n”.

\* “n” is indicated as follows.

n(hex)	Termination
00	[00]h
80	[FF]h

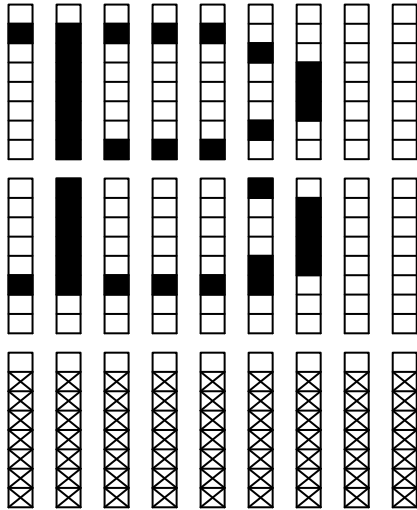
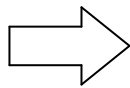
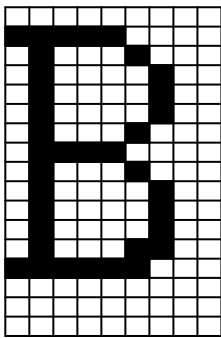
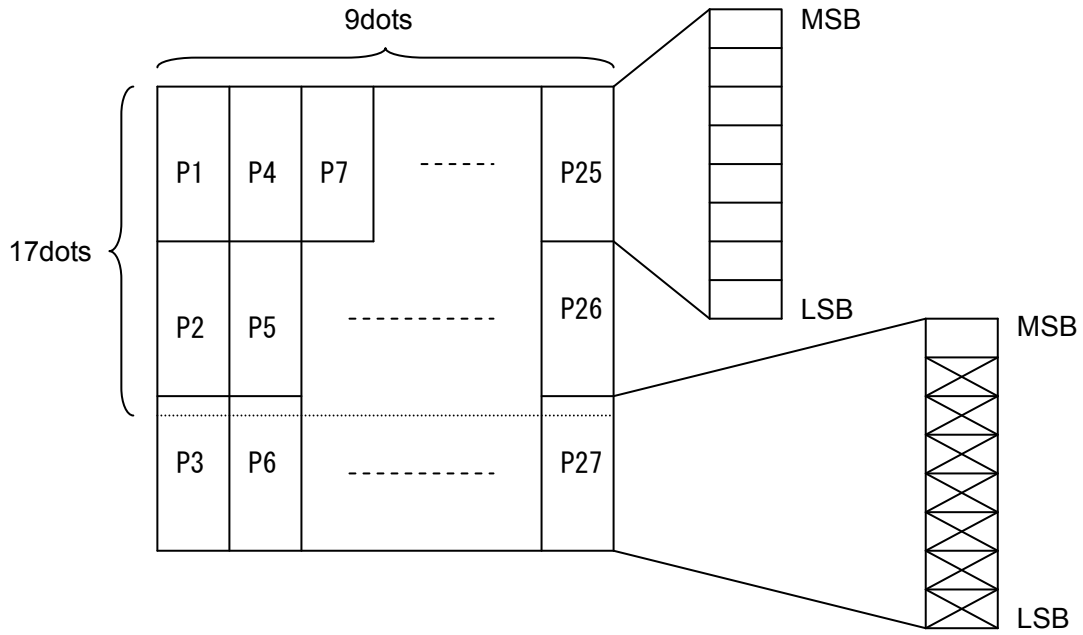
\* Default of “n” is [00]h.







<Reference>  
 In case of Font B



P1= [40] h,P4= [7F] h,P7= [41] h,P10= [41] h,...  
 P2= [04] h,P5= [FC] h,P8= [04] h,P11= [04] h,...  
 P3= [00] h,P6= [00] h,P9= [00] h,P12= [00] h,...

12) [Bit Image Mode Set] 《ESC \* m n1 n2 Dn》

Code : [1B]h+[2A]h+m+n1+n2+Dn \* [m=indicated below] h

\* [00≤n1≤FF]h

\* [00≤n2≤02]h

Prints data in bit image with resolution designated by “m”.

\* Total dot number to print in bit image shall be  $n1 + (256 \times n2)$ .

\* Dot number to print is divided by 256, quotient shall be “n2” and remainder is “n1”.

\* if bit image data(Dn) is input over printable area , the exceeding data will be disregarded.

\* Bit image data (Dn) interprets “1” as print target bit and “0”bit as no print bit

\* Bit image mode is indicated in following table.

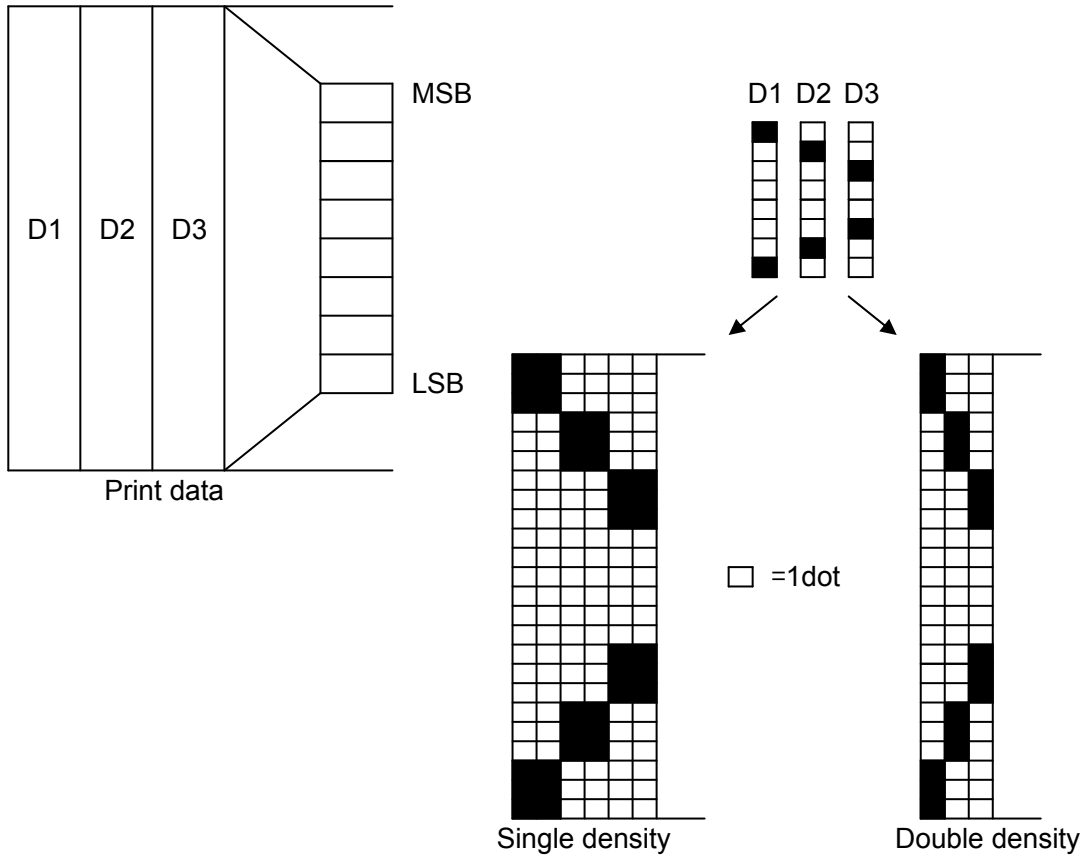
\* When interface is SERIAL (RS232C) or intermittently printing (when fixed interval time in every print) in bit image mode, 1dot SPACE may occur at the most. In order to get rid of this SPACE, use together with 44) [Print start/finish Setting] command.

<Standard Mode>

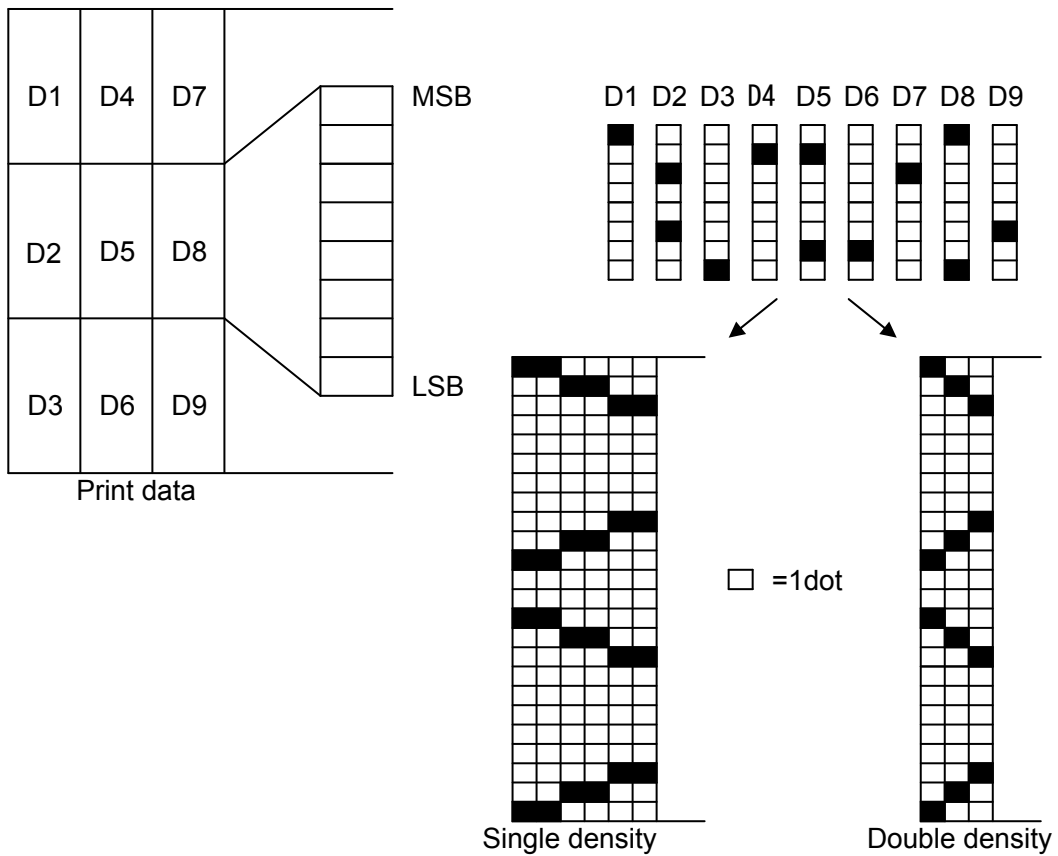
m(hex)	Bit Image Mode	Vertical Direction		Horizontal Direction		
		Dot Quantiy	Dot Density	Dot Density	Max. Dots	
					NP-2411	NP-3411
00	8dot single density	8	67DPI	101DPI	216	288
01	8dot double density	8	67DPI	203DPI	432	576
20	24dot single density	24	203DPI	101DPI	216	288
21,23	24dot double density	24	203DPI	203DPI	432	576

<Relationship between Bit Image data and Printed Dot>

\* 8dots bit image



\* 24dots image bit



13) [Underline SET/RESET] 《ESC - n》

Code : [1B]h+[2D]h+n \*[00≤n≤02]h

SET/RESET Underline.

\*Underline is valid to all characters except for area skipped by [Horizontal Tab].

Also, underline is not valid to 90° clockwise rotated character.

\*This command is disabled at Kanji mode.

\*Underline is verified with “n” value as shown bellow.

n(hex)	Type
00	Release underline
01	SET underline of 1dot width
02	SET underline of 2 dot width

\* Default value of “n” is [00]h.

14) [1/6 inch Line Feed Designation] 《ESC 2》

Code : [1B]h+[32]h

Sets one line feed quantity to 1/6 inch

15) [Line Feed Designation of Smallest Paper Feed Pitch Unit ] 《ESC 3 n》

Code : [1B]h+[33]h+n \*[00≤n≤FF]h

Setup a line feed pitch to n/203 inch.

\*Although setup under character’s height is tried, line feed for the character’s height is activated.

\*When n = [00]h set, FEED is disabled even if holding FEED switch.

\*Default value of “n” is [22]h.

16) [Data Input Control] 《ESC = n》

Code : [1B]h+[3D]h+n \*[00≤n≤FF]h

Selects device effective to data input from the host.

\* Each bit of “n” has following meaning.

bit	Function	Value	
		0	1
0	Printer	INVALID	VALID
1	Undefined		
2	Undefined		
3	Undefined		
4	Undefined		
5	Undefined		
6	Undefined		
7	Undefined		

\*When printer is not selected, this printer breaks all the received data until the printer is selected by this command.

\*Even if printer not selected, there may be busy status by printer operation.

\*Default value of “n” is [01]h.

17) [Printer Initialization] 《ESC @》

Code : [1B]h+[40]h

Clears data stored in the print line buffer and initializes (default status) each setup.

\*Does not clear data stored in the internal receive input buffer.

\*Does not repeat reading memory switch.

\*Stored in receive buffer and executed sequentially.

- 18) [Back Feed] 《ESC B n》  
Code : [1B]h+[42]h+n \*[00≤n≤FF]h  
This command is to feed paper in reverse direction.  
\*Designate delivered quantity by “n” Dot line. In case of set [00]h, no forwarding.  
\*inputting this command in a row may cause paper jam, please conduct a forwarding paper feed once this command input.  
\*Backlash may lead to moving over a little.  
\*If there is print data in print line buffer, backfeed is activated after printing.  
\*Please designate paper tip by [n ≤ 34] h or lower not to exceed backfeed limit (please refer to [product specification 2.4 Cutter specifications]) for backfeed right after cut.  
\*When conducting back-feed after selecting and executing “black mark sensor” [n1 = 01h] in [Paper-out Signal Detector Selection], make sure to designate feeding amount so that black mark on paper will stop right in front of paper-out sensor by back feed.
- 19) [“n” Line Page Length Setting] 《ESC C n》  
Code : [1B]h+[43]h+n \*[01≤n≤FF]h  
Set a page length to “n” lines under current line feed pitch.  
\*Position when setting will be top of the page.  
\*Page length will not change even if changing line feed pitch after setting.  
\*Default value of “n” is [42] h. (66 lines)  
\*When executing printer initialization, top of the page will also be initialized.  
\*Please do not setup this command set when using [Print start/finish Setting] command.
- 20) [Horizontal Tab Position Setting] 《ESC D n1 n2 --- NUL》  
Code : [1B]h+[44]h+n1+n2+---+[00]h \*[00≤n≤FF]h  
Set horizontal tab position.  
\*“n” indicates the digit number from the head to the horizontal tab position.  
In this case, it shall be [n = setup position – 1].  
\*Although tab position is set at the point from head of the line to character width x “n”, this character width includes character right space quantity and double its regular in case of double width zoom designation.  
\*Configurable tab position has 32 locations and the exceeding will be disregarded.  
\*« ESC D NUL » clears all set tab positions, tab movement by [Horizontal Tab] command is disabled after clearing  
\*Default of [Horizontal Tab] is at every 8 character (9th digit, 17th digit, 25<sup>th</sup> digit, 33<sup>rd</sup> digit, 41<sup>st</sup> digit) in font A. (2 inch model is until 33<sup>rd</sup> digit.)
- 21) Accent Print SET/RESET] 《ESC E n》  
Code : [1B]h+[45]h+n \*[00≤n≤FF]h  
SET/RESET Accent Print  
\* Only LSB(Least significant bit “b0”) is available to “n”.  
\* “b0” has the following meaning.
- | b0 | Value              |
|----|--------------------|
| 0  | RESET accent print |
| 1  | SET accent print   |
- \*Accent print and double strike print result in the same in this printer.  
\*When executing accent print, print result may be deformed.  
\*Default value of “n” is [00]h.

22) [Double Strike Print SET/RESET] 《ESC G n》

Code : [1B]h+[47]h+n \*[00≤n≤FF]h

SET/RESET Double Strike Print

- \* Only LSB(least significant bit “b0”) is available to “n”.
- \* “b0” has the following meaning.

b0	Description
0	RESET Double Strike print
1	SET Double Strike print

- \* Accent print and double strike print results in the same in this printer.
- \* When Double Strike print, print result may be deformed.
- \* Default value of “n” is [00]h.

23) [Print and Paper Feed at smallest pitch unit.] 《ESC J n》

Code : [1B]h+[4A]h+n \*[00≤n≤FF]h

Prints data inside the print line buffer and feeds paper by n/203 inch.

- \*Line feed quantity does not remain.
- \*Head of the line shall be a next print start point.
- \*Since paper feed for the same amount of character’s height of a line is activated inevitably, if lower value is designated by n, paper feed equals to the same amount for character height of a line.is activated.

24) ■[International Character Selection] 《ESC R n》

- \* Effective only when selecting Japanese as language font and selecting either overseas code table,or domestic code table in [Character Code Table Selection]

Code : [1B]h+[52]h+n \*[00≤n≤0C]h

Selects International Characters

- \* Select by “n” value country character set from table below

n(hex)	Character Set
00	U.S.A.
01	France
02	Germany
03	U.K.
04	Denmark I
05	Sweden
06	Italy
07	Spain I
08	Japan
09	Norway
0A	Denmark II
0B	Spain II
0C	Latin America

- \* Default value of “n” is [08]h.

25) [Switch of built-in Language Fonts] 《ESC T n》

Code : [1B]h+[54]h+n \*[00≤n≤03]h

Switch built-in language fonts

\*“n” has the following meaning.

n(hex)	Built-in font
00	Japanese
01	Chinese
02	Korean
03	Greek

\*Default value of “n” is a setting of MS2-2, MS2-3 Memory switch.

\*This command is same function as the «FS T n» command.

\*This command set returns to value set in memory switch (MS2-2, MS2-3) by executing [Initialization of printer] .

26) [90° Clockwise Rotated Character SET/RESET] 《ESC V n》

Code : [1B]h+[56]h+n \*[00≤n≤01]h

SET/RESET 90° clockwise rotated character.

\*When 90° clockwise rotated character is set, [Underline Setting] is disabled.

\*“n” has the following meaning.

n(hex)	Description
00	RESET90°clockwise rotated character
01	SET 90° clockwise rotated character

\* Default value of “n” is [00]h.

27) [Relative Position Setting] 《ESC ¥ n1 n2》

Code : [1B]h+[5C]h+n1+n2 \*[00≤n1≤FF]h

\*[00≤n2≤FF]h

Sets print start position by dots number (in 1/203 inch unit) from the current position.

Divide dot number of print start position by 256 ,quotient shall be “n2”, remainder as “n1”.

Rightward defines plus, leftward defines minus.

When “N” dot is set in plus direction, the value is (“n1” + “n2” x 256).

When “n” dot is set in minus direction, the value is set by “N” complement.

“N” dot = 65536 - n

Designation exceeding end of the line is disregarded.

28) [Position Alignment] 《ESC a n》

Code : [1B]h+[61]h+n \*[00≤n≤02]h

Aligns print data in a line at the designated position.

(Except for NV bit image)

\*“n” has the following meaning.

n(hex)	Position
00	Left alignment
01	Centering
02	Right alignment

\* Effective only when input at beginning of the line.

\* Default value of “n” is [00]h.









39) [Inverted Character SET/RESET] 《ESC { n》

Code : [1B]h+[7B]h+n \*[00≤n≤FF]h

SET/RESET Inverted Character

\*Only LSB (least significant bit “b0”) is available to “n”.

\* “b0” has the following meaning.

b0	Description
0	RESET inverted character
1	SET inverted character

\*The command is only valid when it is assigned at the head of the line.

\*Default value of “n” is [00]h.

40) [Partition Drive Selection] 《GS % n》

Code : [1D]h+[25]h+n \*[01≤n≤05]h

Selects partition drive.

\* “n” has the following meaning.

n(hex)	Partition
01	Fix without partition
02	Fix in dual partition
03	Fix in three partition
04	Fix in four partition
05	Optimization(anomaly)

\* Default value of “n” is [02] h

\* NP-2411 Enable to set without partition, Fix in dual partition, Fix in three partition, Optimization(anomaly).

\* NP-3411 Enable to set without partition, Fix in dual partition, Fix in four partition, Optimization(anomaly).

\* Will be ignored and DO NOT change when out of range.

\* Also, please refer to 4. 4 Driving Selection [product specification 4.4 Driving Selection].



42) [Printing Downloaded Bit Image] 《GS / m》

Code : [1D]h+[2F]h+m \*[00≤m≤03]h

Print out defined download bit image in mode designated by m.

\*Modes selected by “m” are as follows.

m(hex)	Mode	Dot density	
		Portrait	Landscape
00	Normal	203DPI	203DPI
01	Double width	203DPI	101DPI
02	Double height	101DPI	203DPI
03	Quadruple	101DPI	101DPI

\*When data remains inside print line buffer, this command will be disregarded.

\*When download bit image is not defined, this command will be disregarded.

\* Download bit image exceeding one line.is not printed.

\*Effective only when designated at head of the line.

\*When using 44) [Print start/finish Setting] command, this command will be disregarded.

43) [Black and White Reverse Print SET/RESET] 《GS B n》

Code : [1D]h+[42]+n \*[00≤n≤FF]h

SET/RESET black and white reverse print.

\*Only LSB (least significant bit “b0”) is available to “n”.

“b0” has the following meaning.

b0	Function
0	RESET Black and White reverse print
1	SET Black and White reverse print

\*Black/white reverse print is applicable to built-in characters and downloaded characters.

\*Right side SPACE of set character in [Character Right Space Quantity Setup] is also applied to black/white reverse print. However, it does not cover the skipped space created by bit image, raster bit image, fixed bit image, barcode, HRI characters, [Horizontal Tab], [Absolute Position Setting], [Relative Position Setting].

\*Does not affect to SPACE between the lines.

\*Designating black/white reverse print has priority over underline setting. Thus, even at underline designation, underline will not be added to black/white reverse character. However, underline setting remains no change.

\*When black/white reverse print, print result may be deformed.

\*Default value of “n” is [00]h.









50) [Firmware Download] 《GS d Dn》

Code : [1D]h+[64]h+Dn

\*Download printer firmware and rewrites firmware of printer with downloaded content, and reboot.

\*\*“Dn” is HEX code of firmware and complies with INTELLEX HEX format.

51) [Bootloader Download] 《GS e Dn》

Code : [1D]h+[65]h+Dn

Download bootloader of printer and rewrites the bootloader of printer with the downloaded content and reboot.

\*\*“Dn” is HEX code of firmware and complies with INTELLEX HEX format.

52) [HRI Character Style Selection] 《GS f n》

Code : [1D]h+[66]h+n \*[00≤n≤01]h

\*Selects font of HRI character when printing barcode.

\*\*“n” has the following meaning.

n(hex)	Font style
00	Font A
01	Font B

\* Default value of “n” is [00] h.

53) [Designation of Barcode Height] 《GS h n》

Code : [1D]h+[68]h+n \*[01≤n≤FF]h

\*Designate the height of barcode by dot.

\*\*“n” indicates dot number for vertical direction.

\*Default value of “n” is [A2]h. (162dots)

54) [Barcode Printing] 《GS k n Dn NUL》

Code : [1D]h+[6B]h+n+Dn+[00]h \*[00≤n≤07]h

Select barcode symbology and print barcode.

\*The top of the line is regarded as a next print start position.

\*Selects following barcode symbology with “n” value.

n(hex)	Barcode Symbology
00	UPC-A
01	UPC-E
02	JAN-13(EAN-13)
03	JAN-8(EAN-8)
04	CODE39
05	ITF
06	CODABAR(NW-7)
07	CODE128

\*\*“Dn” indicates the character code to print.

\*When character code “Dn” is not printable character, data following “Dn” will be treated as normal print data.

\*When selecting barcode symbology whose print character number is fixed, character number must be matched to the print character number.

\*Barcode is not printed if horizontal data exceeds length of a line. However,if there is print designation for HRI Characters, HRI Characters for length of a line.is printed.

\*[00] h at the end of this command can be changed to [FF]h in [Barcode End Change].

\*Please refer to the next page [Detailed Specifications of Barcode] of appendix for details of each barcode.

Barcode Detail Specification

Name	Number	Types of character	Remarks
UPC-A	12	Numbers (0~9)	* Check digit that has calculated inside printer will be automatically added to 12 <sup>th</sup> digit. * Calculated value will be prioritized if numerical value differs from 12 <sup>th</sup> digit.
UPC-E	8	Numbers (0~9)	* Compress 12 digit data to 8 digit inside printer. * Check digit that has calculated inside printer will be automatically added to 8 <sup>th</sup> digit. * Calculated value will be prioritized if numerical value differs from 12 <sup>th</sup> digit.
JAN-13 (EAN-13)	13	Numbers (0~9)	* Check digit that has calculated inside printer will be automatically added to 13 <sup>th</sup> digit. * Calculated value will be prioritized if numerical value differs from 13 <sup>th</sup> digit.
JAN-8 (EAN-8)	8	Numbers (0~9)	* Check digit that has calculated inside printer will be automatically added to 8 <sup>th</sup> digit. * Calculated value will be prioritized if numerical value differs from 8 <sup>th</sup> digit.
CODE39	Flexible length	Number (0~9) Alphabet (A~Z) Marks (\$%*+-./:space) Start/Stop Code (*)	* Make sure to input "*" of Start/Stop Code
ITF	Even	Number: 0~9	* Do NOT print when letters are odd numbers.
CODABAR (NW-7)	Flexible length	Number (0~9) Marks (\$%*+-./:space) Start/Stop Code (ABCD) (abcd)	* Make sure to input "Start/Stop Code" * Although can be printed out without "Start/Stop Code", it unables to read-out by scanner etc.

\* Refer to next page for "CODE128"

1. Summary

2 digits numbers can be indicated by ASCII 128 characters (numbers, alphabets capital/small, marks and control characters) and one bar-pattern. Letter numbers are variable length and stop code/check digit will be automatically added.

2. Type of characters

- \* Code Set A: Indicates ASCII characters of [ 00 ]h ~ [ 5F ]h
- \* Code Set B: Indicates ASCII characters of [ 20 ]h ~ [ 7F ]h
- \* Code Set C: Indicates 2 digits numbers (00 ~ 99) with one bar-pattern.
- \* Special Character
  - 1) Make sure to put this character in the beginning of barcode data for “Start Code/Code Select Character (CODE A, CODE B, CODE C)  
Enables to set switch code in the middle of data.
  - 2) Shift Character (SHIFT)  
Code Set A: Handles as Code Set B for the first letter right after SHIFT.  
Code Set B: Handles as Code Set A for the first letter right after SHIFT.  
Code Set C: Disable
  - 3) Function Character (FNC1, FNC2, FNC3, FNC4)  
Usage depends on application.  
Code Set C enables to use only “FNC1”

3. Detail Specification

- \* Stops command process, if Start Code is not in the first of barcode data.
- \* Stops command process, if combination with “ { “ do NOT correspond to any of special Character.
- \* Input “ { { ” ( [7B]h + [7B]h ) when using “ { “ as a character.
- \* If there is character that cannot be used in selected code set, although it does print out, it cannot be scanned or read out by retrieval device etc.
- \* Change end of barcode to [ FF ]h in [ Barcode End Change ] when using [ 00 ]h as a code.
- \* HRI Character Specification of Control Character/Special Character are as follows.
  - 1) Control Character ( [00]h ~ [1F]h, [7F]h )  
Indicates “Space”.
  - 2) Start Code/Code Select Character (CODE A, CODE B, CODE C)  
Do NOT print out
  - 3) Shift Character (SHIFT)  
Do NOT print out
  - 4) Function Character (FNC1, FNC2, FNC3, FNC4)  
Indicates “Space”.

4. Character Set Table

Special Character

	ASCII	HEX
CODE A	{A	[7B]h + [41]h
CODE B	{B	[7B]h + [42]h
CODE C	{C	[7B]h + [43]h
SHIFT	{S	[7B]h + [53]h
FNC 1	{1	[7B]h + [31]h
FNC 2	{2	[7B]h + [32]h
FNC 3	{3	[7B]h + [33]h
FNC 4	{4	[7B]h + [34]h

Code Set A

HEX	0	1	2	3	4	5
0	NULL	DLE	SP	0	@	P
1	SOH	DC1	!	1	A	Q
2	STX	DC2	"	2	B	R
3	ETX	DC3	#	3	C	S
4	EOT	DC4	\$	4	D	T
5	ENQ	NAK	%	5	E	U
6	ACK	SYN	&	6	F	V
7	BEL	ETB	'	7	G	W
8	BS	CAN	(	8	H	X
9	HT	EM	)	9	I	Y
A	LF	SUB	*	:	J	Z
B	VT	ESC	+	;	K	[
C	FF	FS	,	<	L	¥
D	CR	GS	-	=	M	]
E	SO	RS	.	>	N	^
F	SI	US	/	?	O	_

Code Set B

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

Code Set C

HEX	0	1	2	3	4	5	6
0	00	16	32	48	64	80	96
1	01	17	33	49	65	81	97
2	02	18	34	50	66	82	98
3	03	19	35	51	67	83	99
4	04	20	36	52	68	84	
5	05	21	37	53	69	85	
6	06	22	38	54	70	86	
7	07	23	39	55	71	87	
8	08	24	40	56	72	88	
9	09	25	41	57	73	89	
A	10	26	42	58	74	90	
B	11	27	43	59	75	91	
C	12	28	44	60	76	92	
D	13	29	45	61	77	93	
E	14	30	46	62	78	94	
F	15	31	47	63	79	95	



59) ▲[Japanese Kanji Mode Setting] 《FS &》

\*Effective when only selecting Japanese or Korean as language font.

Code : [1C]h+[26]h

\*It will be ineffective, when Japanese is selected with Shift JIS in Japanese Kanji Code system.

\*Default status is in release of Japanese Kanji mode

60) [Japanese Kanji Underline SET/RESET] 《FS - n》

Code : [1C]h+[2D]h+n \*[00≤n≤02]h

Set or reset Japanese Kanji Underline.

\*All of the printed characters will be underlined except for the 90° clockwise rotated characters and spaces created by [Horizontal Tab] command.

\*This command is disabled in case of Kanji Mode Release.

\*“n” has the following meaning.

n(hex)	Function
00	RESET underline of Japanese Kanji
01	Set “1” dot width underline of Japanese Kanji
02	Set “2” dot width underline of Japanese Kanji

\* Default value of “n” is [00]h.

61) ▲[Japanese Kanji Mode RESET] 《FS .》

\*Effective only when selecting Japanese or Korean in language font.

Code : [1C]h+[2E]h

RESET Japanese Kanji mode.

\*It will be ineffective, when Japanese is selected with Shift JIS in Japanese Kanji Code system.

\*Default status is in release of Japanese Kanji mode.

62) ■[Definition of External Characters] 《FS 2 a1 a2 Dn》

\* Effective only when selecting Japanese in language font.

Code : [1C]h+[32]h+a1+a2+Dn

JIS code system

\*[a1=77]h

\*[21≤a2≤7E]h

Shift JIS code system

\*[a1=EC]h

\*[40≤a2≤7E, 80≤a2≤9E]h

Defines Additional Kanji Character.

\*Enable to define up to 94 characters.

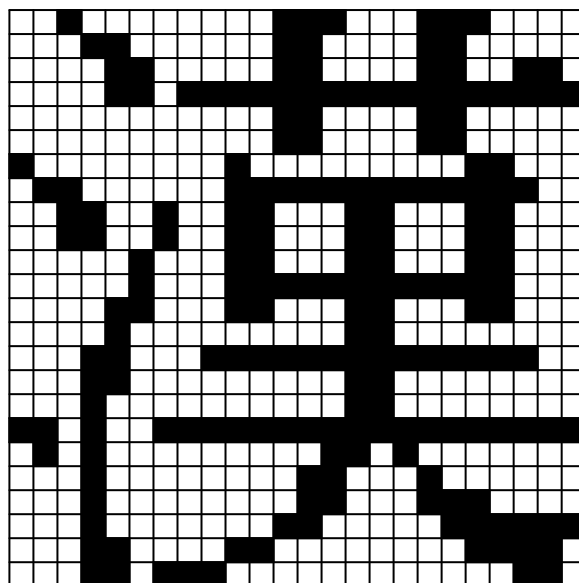
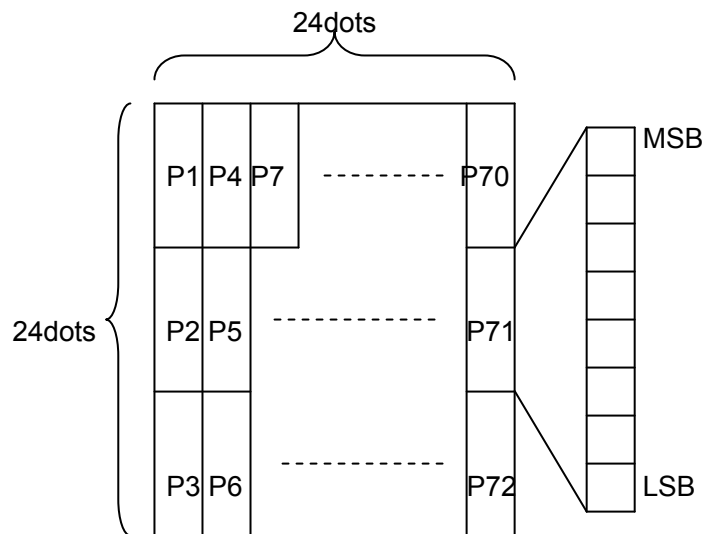
\*“Dn” is data to define. Data number will be 3 bytes(vertical) x 24 dots(horizontal) = 72 bytes

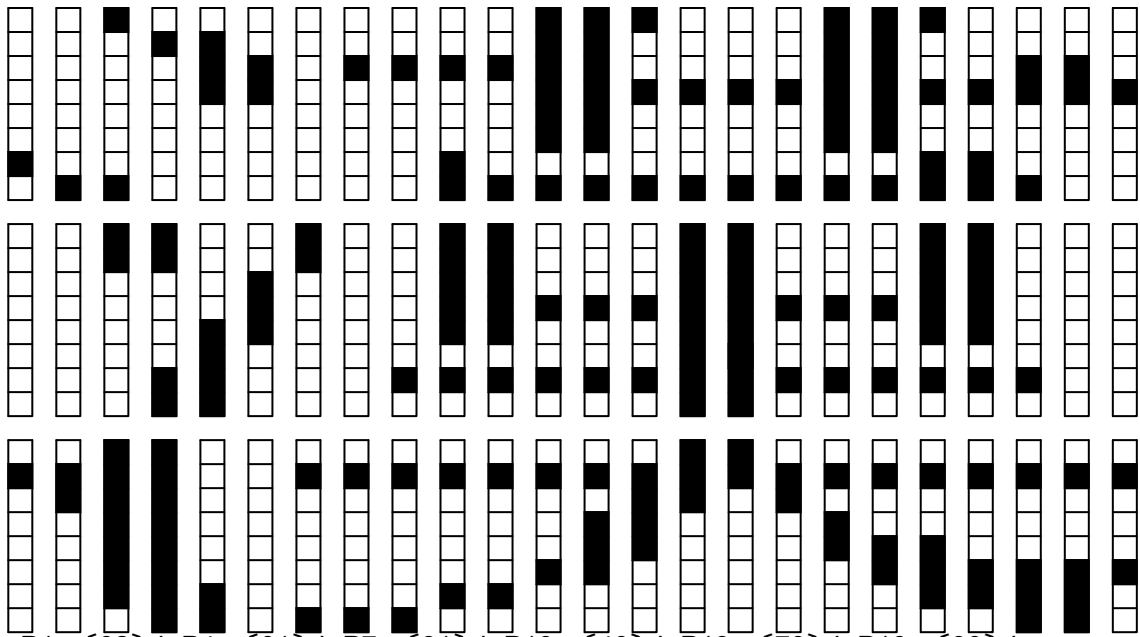
\* The default statuses are all "SPACE".

\*The external font once defined by this command is enabled until execution of [Software Reset] and RESET switch or turning the power OFF.

\*Only designated area will be redefined.

<Example>





P1= [02] h,P4= [01] h,P7= [81] h,P10= [40] h,P13= [70] h,P16= [30] h,...  
 P2= [00] h,P5= [00] h,P8= [C0] h,P11= [C3] h,P14= [0F] h,P17= [38] h,...  
 P3= [40] h,P6= [60] h,P9= [FE] h,P12= [FF] h,P15= [03] h,P18= [00] h,...



63) ■[Japanese Kanji Code Selection] 《FS C n》

\*Effective only when selecting Japanese as language font.

Code : [1C]h+[43]h+n \*[00≤n≤01]h

Select Japanese Kanji code system.

\*“n” has the following meaning.

n(hex)	Code
00	JIS code
01	Shift JIS code

\*Default status is setting of memory switch MS2-1.

64) [Japanese Kanji Space Quantity Setting] 《FS S n1 n2》

Code : [1C]h+[53]h+n1+n2 \*[00≤n1≤20]h

\*[00≤n2≤20]h

Sets right/left side space quantity of Japanese Kanji by dot unit.

\*“Set left SPACE by n1”. Default value is [00]h.

\*“Set right SPACE by n2”. Default value is [00]h.

\*SPACE will have quantity reflected by enlargement at double width mode.

65) [Built-In Character Code Table Selection] 《FS T n》

Code : [1C]h+[54]h+n \*[00≤n≤03]h

Switch built-in language font.

\*“n” has the following.

n(hex)	Built-in character code table
00	Japanese
01	Chinese
02	Korean
03	Greek

\*Default of “n” is set by memory switch (MS2-2, MS2-3).

\*This command has the same function as «ESC T n»

\*By executing [Printer Initialization], this setting will be returned to value set by memory switch (MS2-2, MS2-3).

66) [Quadruple Japanese Kanji Size SET/RESET] 《FS W n》

Code : [1C]h+[57]h+n \*[00≤n≤FF]h

SET/RESET Quadruple Japanese Kanji Character.

\*Only LSB (least significant bit “b0”) is available to “n”.

“b0” has the following meaning.

b0	Function
0	RESET Quadruple
1	SET Quadruple

\*Default value of “n” is [00]h.

67) [QR Code Print (model 2)] 《ESC q S E V M》

\*This command is only available to F/W Ver.1.30 or later.

Code: [1B]h + [71]h + S + E + V + M + n1 + n2 + Dn

«Parameter explanation»

(1) S : Module Size

- Designate 1module size of QR code by dot number of the printer.
- 1 ~ 20dots can be designated.
- It will be 4dots when invalid size is designated.

(It is not guaranteed to read in case of module size 1, 2, 3 owing to resolution of printer mechanism.)

(2) E : Error Correction Level

- Select error correction level to use for symbol restoration.
- Values can be set as follows.
- Error correction level "L" will be set when invalid value is set

E	Error Correction Level	Restoration ability(%)
0	L	7
1	M	15
2	Q	25
3	H	30

(3) V : Model № (version)

- Assign module number of QR code by model №.
- Model № that can be assigned are "0" ~ "40".
- "0" will automatically set smallest version depending on number of data.
- "1" ~ "40" assign module of 21x21 ~ 177x177.

(4 modules are increased in every increase of the model №.)

- When invalid value is assigned, it will automatically set to model № "0".
- When assigning string more than capacity of assigned model №, model № is automatically extended and printed.

(4) M : Mask Pattern

- Assignable mask pattern ; "0" ~ "8".
- "0" will be assigned to optimum mask pattern. <sup>\*NOTE1</sup>
- When invalid value is assigned, mask pattern "5" will be set.

<sup>\*NOTE1</sup>: Although optimum process of mask pattern is based on specifications of QR code, since it will take time for process, please make sure to use with model № below "10" when using optimization process.

Please refer to [Optimization Process Time for Mask Patter] for processing time.

(5) n1 n2 : Number of data Byte

- Assign number of data Byte (n2\*256+n1)

(6) Dn : String Data

- Assign character code to print..
- KANJI data will be input by SHIFT JIS code.

«Restriction»

When exceeding print area, QR code.is not printed.

[Optimization Process Time for MASK Pattern]

1. Print Conditions

Size (S)	Correction Level (E)	Mask (M)	Number of Byte (B)	Data (Dn)
4	L	0	20	漢漢漢漢漢漢漢漢漢漢

2. Process Time

Model № (V)	1	2	3	4	5	6	7	8	9	10
Time(sec)	0.4	0.5	0.7	0.9	1.0	1.3	1.5	1.7	2.0	2.3

Model № (V)	11	12	13	14	15	16	17	18	19	20
Time(sec)	2.7	3.0	3.4	3.8	4.2	4.7	5.1	5.7	6.2	6.7

Model № (V)	21	22	23	24	25	26	27	28	29	30
Time(sec)	7.3	7.8	8.5	9.1	9.7	10.5	11.2	11.8	12.6	13.4

Model № (V)	31	32	33	34	35	36	37	38	39	40
Time(sec)	14.1	15.0	15.8	16.7	17.5	18.4	19.4	20.4	21.3	22.3

\*Process time depends on model №

Please beware that process time when fixing the mask (no optimization) will be approx. 1/10 in comparison to optimization.

\*The above mentioned times are just for reference.

68) [User Code Page Registration] 《GS & n Dn》

Code : [1D]h+[26]h+n+Dn                   \*[00≤n≤01]h

Register user code page

n(Hex)	Registration Font class
00	User Code Page Font A (12x24)
01	User Code Page Font B (9x17)

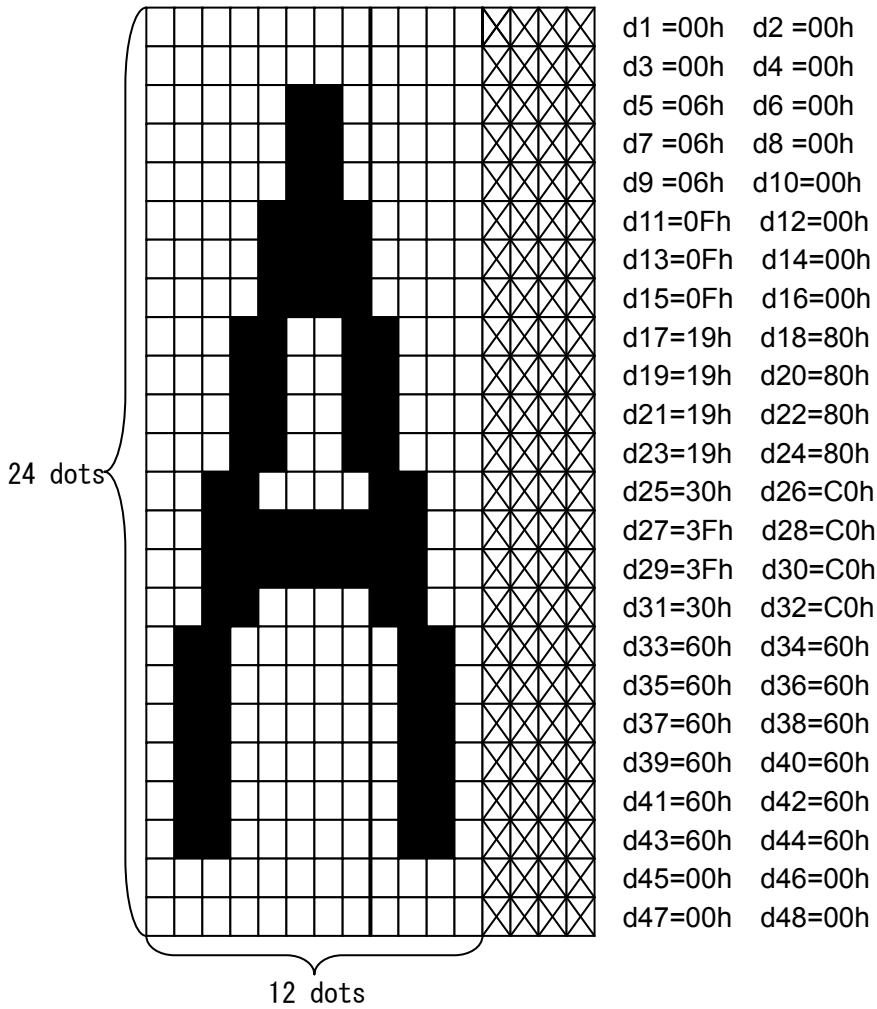
\*Dn is registration font data. Data format is raster style.

224 characters data(10752 byte) is absolutely needed. Please treat Data without registration all as [00]h.

[Horizontal 2 byte × Vertical 24 byte] ×224 characters ([20]h~[FF]h)

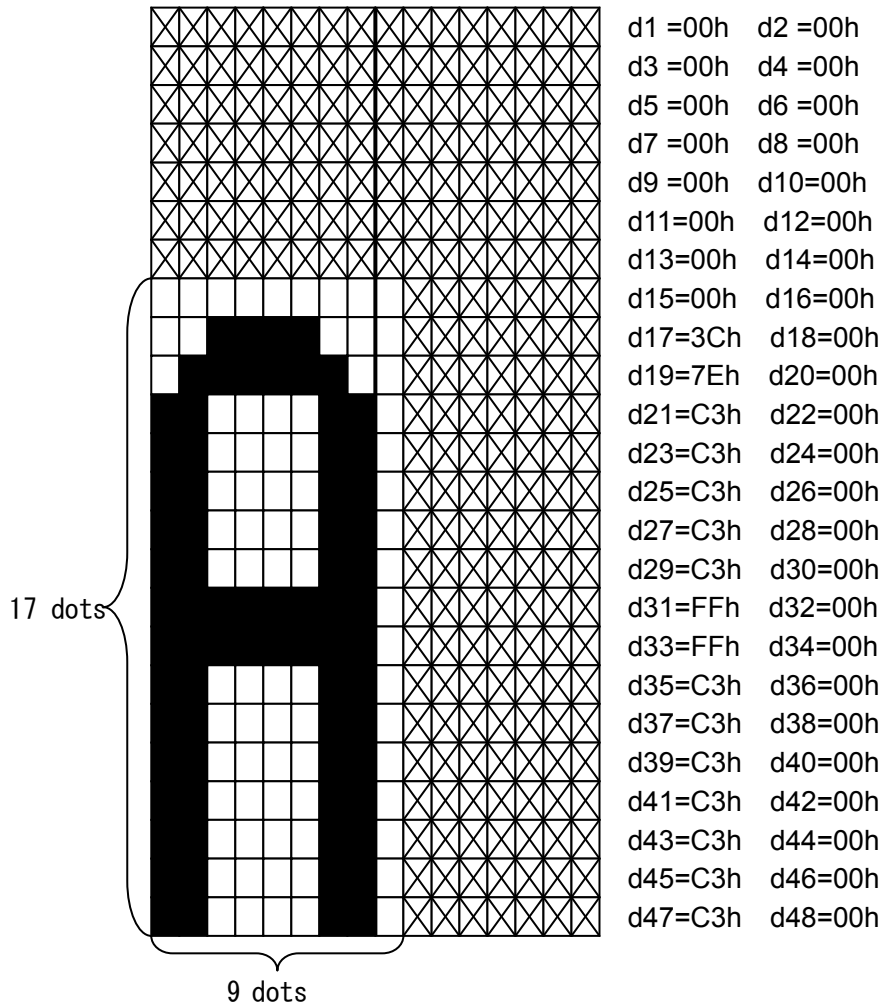
\*Also enable to register in [7F] h、[FF] h

<Example>  
Font A



⊠ : Dummy data.: please treat as 0 Fixed at registration. .

<Example>  
Font B



⊠ : Dummy data. Please treat as 0 fixed at registration.



• Detailed Explanation of NPT-306 Movement Mode

Mode	Clamp	Retraction Condition	Ejection Condition
Auto Retraction	Available	* Cover open/close * Feed Switch ON * Receive presenter retraction of [Presenter Ejection/Retraction] command. *Receive command related to print/paper feed *Elapse of time set in command [Presenter Auto-Ejection/Retraction Time Setting]	* Receive presenter ejection of [Presenter Ejection/Retraction] command.
Auto Ejection	Available	* Receive presenter retraction of [Presenter Ejection/Retraction] command.	* Cover open/close * Feed Switch ON * Receive presenter ejection of [Presenter Ejection/Retraction] command. * Receive command related to print/paper feed. *Elapse of time set by [Presenter Auto Ejection/Retraction Time Setting] command
Manual Retraction	Available	* Cover open/close * Feed Switch ON * Receive presenter retraction of [Presenter Ejection/Retraction] command. * Receive command related to print/paper feed.	* Receive presenter ejection of [Presenter Ejection/Retraction] command.
Manual Ejection	Available	* Receive presenter retraction of [Presenter Ejection/Retraction] command.	* Cover open/close * Feed Switch ON * Receive presenter ejection of [Presenter Ejection/Retraction] command. * Receive command related to print/paper feed.
Complete Retraction	Not Available	* Full Cut	
Complete Ejection	Not Available		* Full Cut
Loop Function OFF Retraction	Not Available	* Full Cut	
Loop Function OFF Ejection	Not Available		* Full Cut

\* Clamp is the mode of presenter is waiting for paper extraction..

\* Function OFF interprets activating presenter motor synchronized with paper feed motor but no function as presenter.

However, since paper detection process and ejection/retraction process are not in function OFF, paper detection error occurs if paper not entered into presenter, present ejection error occurs if paper is not ejected out of presenter.

\* There is no paper diction process in paper feed with fixed quantity after cover open/close.

\* There will be paper detection error if there is no paper in presenter as paper end occurs.

Short strip paper left in the presenter may cause paper jam. Please make sure to remove it after opening cover.





### 3. Character Code Table

#### 3.1 Domestic Character Code Table (International Character Set: Japanese)

	HEX	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
HEX	BIN	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111
0	0000	NUL		SP	0	@	P	`	p	_	⊥	SP	-	夕	三	=	X
1	0001		DC1	!	1	A	Q	a	q	■	〒	。	ア	チ	ム	ト	円
2	0010			”	2	B	R	b	r	■	†	「	イ	ツ	メ	キ	年
3	0011		DC3	#	3	C	S	c	s	■	ト	」	ウ	テ	モ	ト	月
4	0100			\$	4	D	T	d	t	■	〒	、	エ	ト	ヤ	▲	日
5	0101			%	5	E	U	e	u	■	-	.	オ	ナ	工	▲	時
6	0110			&	6	F	V	f	v	■		ヲ	カ	ニ	ヨ	▼	分
7	0111			'	7	G	W	g	w	■		ア	キ	又	う	▼	秒
8	1000			(	8	H	X	h	x		「	イ	ク	ネ	リ	♠	〒
9	1001	HT		)	9	I	Y	i	y		「	ウ	ケ	ノ	ル	♥	市
A	1010	LF		*	:	J	Z	j	z		「	エ	コ	ハ	レ	♦	区
B	1011		ESC	+	;	K	[	k	{	■	「	オ	サ	ヒ	□	♣	町
C	1100	FF	FS	,	<	L	¥	l	!	■	「	ヤ	シ	フ	ワ	●	村
D	1101	CR	GS	-	=	M	]	m	}	■	「	ユ	ス	ハ	ソ	○	人
E	1110		RS	.	>	N	^	n	~	■	「	ヨ	セ	ホ	”	/	■
F	1111			/	?	0	_	o	SP	+	ノ	ツ	リ	マ	°	\	SP

\*\*"SP" indicated SPACE.

\*\*"CR" is ignored.

\*Printer operation cannot be guaranteed if the blank control code (codes below [1F]h) is transmitted to printer.

\*This code table indicates simplified symbol and is not print result. There may be some difference from the actual print.

3.2 Overseas Character Code (International Set : USA)

	HEX	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
HEX	BIN	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111
0	0000	NUL		SP	0	@	P	`	p	€	É	á	☒	Ⓛ	Ⓜ	α	≡
1	0001		DC1	!	1	A	Q	a	q	ü	æ	í	☒	Ⓛ	Ⓜ	β	±
2	0010			”	2	B	R	b	r	é	Æ	ó	☒	Ⓛ	Ⓜ	Γ	≤
3	0011		DC3	#	3	C	S	c	s	â	ô	ú		†	Ⓜ	π	≥
4	0100			\$	4	D	T	d	t	ä	ö	ñ	†	-	Ⓜ	Σ	∫
5	0101			%	5	E	U	e	u	à	ò	Ñ	†	†	F	ó	J
6	0110			&	6	F	V	f	v	ã	û	ä	†	†	π	μ	÷
7	0111			'	7	G	W	g	w	ç	ù	ó	π	†	†	τ	≈
8	1000			(	8	H	X	h	x	ê	ÿ	¿	†	Ⓜ	†	Φ	°
9	1001	HT		)	9	I	Y	i	y	ë	ö	Γ	†	†	J	θ	•
A	1010	LF		*	:	J	Z	j	z	è	ü	Γ	†	Ⓜ	†	Ω	•
B	1011		ESC	+	;	K	[	k	{	ï	φ	½	†	†	■	δ	√
C	1100	FF	FS	,	<	L	¥	l	l	î	£	¼	†	†	■	ω	∞
D	1101	CR	GS	-	=	M	]	m	}	ï	¥	ï	Ⓜ	=	■	∅	²
E	1110		RS	.	>	N	^	n	~	Ä	ℙ	«	†	†	■	€	■
F	1111			/	?	O	_	o	SP	À	f	»	†	Ⓜ	■	∩	SP

\*“SP” indicated SPACE

\*“CR” is ignored.

\*Printer operation cannot be guaranteed if the blank control code (codes below [1F]h) is transmitted to printer.

\*This code table indicates simplified symbol and is not print result. There may be some difference from the actual print.

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	HEX	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
HEX	BIN	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111
0	0000	NUL		SP	0	@	P	`	p	Ç	É	á	▒	L	ř	Ó	-
1	0001		DC1	!	1	A	Q	a	q	ü	æ	í	▒	L	Ð	ß	±
2	0010			"	2	B	R	b	r	é	Æ	ó	▒	τ	Ê	Ô	=
3	0011		DC3	#	3	C	S	c	s	â	ô	ú			Ë	Ò	¾
4	0100			\$	4	D	T	d	t	ä	ö	ñ		—	È	Õ	¶
5	0101			%	5	E	U	e	u	à	ò	Ñ	Á	+	€	Õ	§
6	0110			&	6	F	V	f	v	å	û	ä	Â	ã	Í	μ	÷
7	0111			'	7	G	W	g	w	ç	ù	ó	À	Ã	Î	þ	¸
8	1000			(	8	H	X	h	x	ê	ÿ	¿	©	ℓ	ï	þ	°
9	1001	HT		)	9	I	Y	i	y	ë	ö	®	¶	¶	Ï	Ú	”
A	1010	LF		*	:	J	Z	j	z	è	ü	¬		⌚	⌚	Û	-
B	1011		ESC	+	;	K	[	k	{	ï	ø	½	¶	¶	■	Ü	¹
C	1100	FF	FS	,	<	L	\			î	£	¼	¶	¶	■	Ý	º
D	1101	CR	GS	-	=	M	]	m	}	ì	ø	ì	ø	=	!	Ý	²
E	1110		RS	.	>	N	^	n	~	Ä	×	«	¥	¶	Ï	¯	■
F	1111			/	?	0	_	o	SP	Å	f	»	⌚	α	■	'	SP

\*“SP” indicated SPACE

\*“CR” is ignored.

\*Printer operation cannot be guaranteed if the blank control code (codes below [1F]h) is transmitted to printer.

\*This code table indicates simplified symbol and is not print result. There may be some difference from the actual print.

### 3.4 International Character Code Table

N	Character Set	23h	24h	40h	5Bh	5Ch	5Dh	5Eh	60h	7Bh	7Ch	7Dh	7Eh
00h	U. S. A.	#	\$	@	[	\	]	^	`	{		}	~
01h	France	#	\$	à	°	ç	§	^	`	é	ù	è	¨
02h	Germany	#	\$	§	Ä	Ö	Ü	^	`	ä	ö	ü	ß
03h	U. K.	£	\$	@	[	\	]	^	`	{		}	~
04h	Denmark I	#	\$	@	Æ	Ø	Å	^	`	æ	ø	å	~
05h	Sweden	#	¤	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
06h	Italy	#	\$	@	°	\	é	^	ù	à	ò	è	ì
07h	Spain I	¤	\$	@	í	ñ	¿	^	`	¨	ñ	}	~
08h	Japan	#	\$	@	[	¥	]	^	`	{		}	~
09h	Norway	#	¤	É	Æ	Ø	Å	Ü	é	æ	ø	å	ü
0Ah	Denmark II	#	\$	É	Æ	Ø	Å	Ü	é	æ	ø	å	ü
0Bh	Spain II	#	\$	á	í	ñ	¿	é	`	í	ñ	ó	ú
0Ch	Latin America	#	\$	á	í	ñ	¿	é	ü	í	ñ	ó	ú

\*This code table indicates simplified symbol and is not print result. There may be some difference from the actual print.

3.5 CODE PAGE 1250

	HEX	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
HEX	BIN	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111
0	0000	NUL		SP	0	@	P	`	p	€	SP	SP	°	Ř	Đ	ř	đ
1	0001		DC1	!	1	A	Q	a	q	SP	‘	˘	±	Á	Ń	á	ń
2	0010			"	2	B	R	b	r	,	'	˘	˘	Â	Ń	â	ñ
3	0011		DC3	#	3	C	S	c	s	SP	“	†	†	Ǻ	Ó	ǻ	ó
4	0100			\$	4	D	T	d	t	„	”	˘	˘	Ä	Ô	ä	ô
5	0101			%	5	E	U	e	u	…	•	Å	µ	Ł	Ń	ł	ń
6	0110			&	6	F	V	f	v	†	-	!¶	¶	Ć	Ö	ć	ö
7	0111			'	7	G	W	g	w	†	-	§	•	Ç	×	ç	÷
8	1000			(	8	H	X	h	x	SP	SP	”	,	Č	Ř	č	ř
9	1001	HT		)	9	I	Y	i	y	%	™	©	ą	É	Ů	é	ů
A	1010	LF		*	:	J	Z	j	z	Š	š	Ş	ş	Ę	Ú	ę	ú
B	1011		ESC	+	;	K	[	k	{	<	>	«	»	Ě	Ů	ě	ů
C	1100	FF	FS	,	<	L	\			Š	š	¬	Ł	Ě	Ů	ě	ů
D	1101	CR	GS	-	=	M	]	m	}	Ť	ť	-	”	Í	Ý	í	ý
E	1110		RS	.	>	N	^	n	~	Ž	ž	®	!'	Î	Ť	î	ť
F	1111			/	?	O	_	o	SP	Ž	ž	Ž	ž	Ď	ß	ď	'

\*“SP” indicated SPACE

\*“CR” is ignored.

\*Printer operation cannot be guaranteed if the blank control code (codes below [1F]h) is transmitted to printer.

\*This code table indicates simplified symbol and is not print result. There may be some difference from the actual print.

3.6 CODE PAGE 1251

	HEX	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
HEX	BIN	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111
0	0000	NUL		SP	0	@	P	`	p	h	h	SP	°	А	Р	а	р
1	0001		DC1	!	1	А	Q	а	q	ѓ	'	Ў	±	Б	С	б	с
2	0010			"	2	В	Р	в	р	,	'	Ў	І	В	Т	в	т
3	0011		DC3	#	3	С	С	с	с	ѓ	"	Ј	і	Г	У	г	у
4	0100			\$	4	Д	Т	д	т	,	"	ѡ	Г	Д	Ф	д	ф
5	0101			%	5	Е	U	e	u	…	•	Г	μ	Е	Х	e	х
6	0110			&	6	Ф	V	f	v	†	-	і	Ч	Ж	Ц	ж	ц
7	0111			'	7	Г	W	g	w	†	-	§	•	З	Ч	з	ч
8	1000			(	8	Н	X	h	x	€	SP	Ё	ё	И	Ш	и	ш
9	1001	HT		)	9	І	Y	i	y	‰	™	©	№	Й	Щ	й	щ
A	1010	LF		*	:	Ј	Z	j	z	љ	љ	Е	е	К	Ь	к	ь
B	1011		ESC	+	;	К	[	к	{	<	>	«	»	Л	Ы	л	ы
C	1100	FF	FS	,	<	L	\			љ	љ	¬	ј	М	Ь	м	ь
D	1101	CR	GS	-	=	М	]	м	}	ќ	ќ	-	С	Н	Э	н	э
E	1110		RS	.	>	Н	^	н	~	ћ	ћ	®	ѕ	О	Ю	о	ю
F	1111			/	?	О	_	о	SP	Ц	Ц	Ї	ї	П	Я	п	я

\*"SP" indicated SPACE

\*"CR" is ignored.

\*Printer operation cannot be guaranteed if the blank control code (codes below [1F]h) is transmitted to printer.

\*This code table indicates simplified symbol and is not print result. There may be some difference from the actual print.



3.7 CODE PAGE 1252

	HEX	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
HEX	BIN	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111	
0	0000	NUL		SP	0	@	P	`	p	€	SP	SP	°	À	Ð	à	ð	
1	0001		DC1	!	1	A	Q	a	q	SP	'	i	±	Á	Ñ	á	ñ	
2	0010			"	2	B	R	b	r	,	'	¢	²	Â	Ò	â	ò	
3	0011		DC3	#	3	C	S	c	s	f	"	£	³	Ã	Ó	ã	ó	
4	0100			\$	4	D	T	d	t	„	"	¤	´	Ä	Ô	ä	ô	
5	0101			%	5	E	U	e	u	…	•	¥	µ	Å	Õ	å	õ	
6	0110			&	6	F	V	f	v	†	-	!¶	Æ	Ö	æ	ö		
7	0111			'	7	G	W	g	w	‡	-	§	·	Ç	×	ç	÷	
8	1000			(	8	H	X	h	x	^	~	"	,	È	Ø	è	ø	
9	1001	HT		)	9	I	Y	i	y	%	™	©	'	É	Ù	é	ù	
A	1010	LF		*	:	J	Z	j	z	Š	š	à	ó	Ê	Ú	ê	ú	
B	1011		ESC	+	;	K	[	k	{	<	>	«	»	Ë	Û	ë	û	
C	1100	FF	FS	,	<	L	\			Œ	œ	¬	¼	Ì	Ü	ì	ü	
D	1101	CR	GS	-	=	M	]	m	}	SP	SP	-	½	Í	Ý	í	ý	
E	1110		RS	.	>	N	^	n	~	Ž	ž	®	¾	Î	Þ	î	þ	
F	1111			/	?	O	_	o		SP	SP	ÿ	¯	ı	İ	ß	ï	ÿ

\*"SP" indicated SPACE

\*"CR" is ignored.

\*Printer operation cannot be guaranteed if the blank control code (codes below [1F]h) is transmitted to printer.

\*This code table indicates simplified symbol and is not print result. There may be some difference from the actual print.

3.8 CODE PAGE 1253

	HEX	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
HEX	BIN	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111	
0	0000	NUL		SP	0	@	P	`	p	€	SP	SP	°	ÿ	Π	ÿ	π	
1	0001		DC1	!	1	A	Q	a	q	SP	‘	“	±	A	P	α	ρ	
2	0010			”	2	B	R	b	r	,	·	À	²	B	SP	β	Ɔ	
3	0011		DC3	#	3	C	S	c	s	f	“	£	³	Γ	Σ	γ	σ	
4	0100			\$	4	D	T	d	t	„	”	Ω	’	Δ	T	δ	τ	
5	0101			%	5	E	U	e	u	…	·	¥	μ	E	Υ	ε	υ	
6	0110			&	6	F	V	f	v	†	—		¶	Z	Φ	ζ	φ	
7	0111			'	7	G	W	g	w	‡	—	§	·	H	X	η	χ	
8	1000			(	8	H	X	h	x	SP	SP	“	E	Θ	Ψ	θ	φ	
9	1001	HT		)	9	I	Y	i	y	%	™	©	H	I	Ω	ι	ω	
A	1010	LF		*	:	J	Z	j	z	SP	SP	SP	ı	K	ı	κ	ı	
B	1011		ESC	+	;	K	[	k	{	<	>	«	»	Λ	ÿ	λ	ÿ	
C	1100	FF	FS	,	<	L	\	l		SP	SP	¬	’	O	M	ά	μ	ó
D	1101	CR	GS	—	=	M	]	m	}	SP	SP	—	½	N	é	ν	ú	
E	1110		RS	.	>	N	^	n	~	SP	SP	®	Υ	Ξ	ή	ξ	ώ	
F	1111			/	?	O	_	o	SP	SP	SP	—	Ω	O	ı	o	SP	

\*“SP” indicated SPACE

\*“CR” is ignored.

\*Printer operation cannot be guaranteed if the blank control code (codes below [1F]h) is transmitted to printer.

\*This code table indicates simplified symbol and is not print result. There may be some difference from the actual print.



3.9 CODE PAGE 1254

	HEX	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
HEX	BIN	0000	0001	0010	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100	1101	1110	1111	
0	0000	NUL		SP	0	@	P	`	p	€	SP	SP	°	À	Ĝ	à	ğ	
1	0001		DC1	!	1	A	Q	a	q	SP	'	i	±	Á	Ñ	á	ñ	
2	0010			"	2	B	R	b	r	,	'	¢	<sup>2</sup>	Â	Ò	â	ò	
3	0011		DC3	#	3	C	S	c	s	f	"	£	<sup>3</sup>	Ã	Ó	ã	ó	
4	0100			\$	4	D	T	d	t	,,	"	¤	'	Ä	Ô	ä	ô	
5	0101			%	5	E	U	e	u	---	•	¥	μ	Å	Õ	å	õ	
6	0110			&	6	F	V	f	v	†	-	!¶	Æ	Ö	æ	ö		
7	0111			'	7	G	W	g	w	‡	-	§	•	Ç	×	ç	÷	
8	1000			(	8	H	X	h	x	^	~	"	,	È	Ø	è	ø	
9	1001	HT		)	9	I	Y	i	y	%	™	©	'	É	Ù	é	ù	
A	1010	LF		*	:	J	Z	j	z	Š	š	à	ó	Ê	Ú	ê	ú	
B	1011		ESC	+	;	K	[	k	{	<	>	«	»	Ë	Û	ë	û	
C	1100	FF	FS	,	<	L	\			Œ	œ	¬	¼	Ì	Ü	ì	ü	
D	1101	CR	GS	-	=	M	]	m	}	SP	SP	-	½	Í	İ	í	ı	
E	1110		RS	.	>	N	^	n	~	SP	SP	®	¾	Î	Ş	î	ş	
F	1111			/	?	O	_	o		SP	SP	ÿ	-	ı	İ	ß	ï	ÿ

\*"SP" indicated SPACE

\*"CR" is ignored.

\*Printer operation cannot be guaranteed if the blank control code (codes below [1F]h) is transmitted to printer.

\*This code table indicates simplified symbol and is not print result. There may be some difference from the actual print.