COMMANDS MANUAL

P3L

CUSTOM®

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THE IMAGES USED IN THIS MANUAL ARE USED AS AN ILLUSTRATIVE EXAMPLES. THEY COULDN'T REPRODUCE THE DESCRIBED MODEL FAITHFULLY.

UNLESS OTHERWISE SPECIFIED, THE INFORMATION GIVEN IN THIS MANUAL ARE REFERRED TO ALL MODELS IN PRODUCTION AT THE ISSUE DATE OF THIS DOCUMENT.

GENERAL INSTRUCTIONS

CUSTOM S.p.A. declines all responsibility for accidents or damage to persons or property occurring as a result of tampering, structural or functional modifications, unsuitable or incorrect installations, environments not in keeping with the equipment's protection degree or with the required temperature and humidity conditions, failure to carry out maintenance and periodical inspections and poor repair work.

GENERAL SAFETY INFORMATION

Your attention is drawn to the following actions that could compromise the characteristics of the product:

- Read and retain the instructions which follow.
- Follow all indications and instructions given on the device.
- Make sure that the surface on which the device rests is stable. If it is not, the device could fall, seriously damaging it.
- Make sure that the device rests on a hard (non-padded) surface and that there is sufficient ventilation.
- Do not fix indissolubly the device or its accessories such as power supplies unless specifically provided in this manual.
- When positioning the device, make sure cables do not get damaged.
- [Only OEM equipment] The equipment must be installed in a kiosk or system that provides mechanical, electrical and fire protection.
- The mains power supply must comply with the rules in force in the Country where you intend to install the equipment.
- Make sure that there is an easily-accessible outlet with a capacity of no less than 10A closely to where the device is to be installed.
- Make sure the power cable provided with the appliance, or that you intend to use is suitable with the wall socket available in the system.
- Make sure the electrical system that supplies power to the device is equipped with a ground wire and is protected by a differential switch.
- Before any type of work is done on the machine, disconnect the power supply.
- Use the type of electrical power supply indicated on the device label.
- These devices are intended to be powered by a separately certified power module having an SELV, non-energy hazardous output. (IEC60950-1 second edition).
- [Only POS equipment] The energy to the equipment must be provided by power supply approved by CUSTOM S.p.A.
- Take care the operating temperature range of equipment and its ancillary components.
- Do not block the ventilation openings.
- Do not insert objects inside the device as this could cause short-circuiting or damage components that could jeopardize printer functioning.
- Do not carry out repairs on the device yourself, except for the normal maintenance operations given in the user manual.
- The equipment must be accessible on these components only to trained, authorized personnel.
- Periodically perform scheduled maintenance on the device to avoid dirt build-up that could compromise the correct, safe operation of the unit.
- Do not touch the head heating line with bare hands or metal objects. Do not perform any operation inside the printer immediately after printing because the head and motor tend to become very hot.
- Use consumables approved by CUSTOM S.p.A.

THE CE MARK AFFIXED TO THE PRODUCT CERTIFY THAT THE PRODUCT SATISFIES THE BASIC SAFETY REQUIREMENTS.

The device is in conformity with the essential Electromagnetic Compatibility and Electric Safety requirements laid down in Directives 2014/30/EU and 2014/35/EU inasmuch as it was designed in conformity with the provisions laid down in the following Standards:

- EN 55032 *(Electromagnetic compatibility of multimedia equipment - Emission Requirements)*
- EN EN55024/EN55035 *(Electromagnetic compatibility of multimedia equipment - Immunity requirements)*
- EN IEC/EN62368-1 *(Audio/video, information and communication technology equipment)*

The device is in conformity with the essential requirements laid down in Directives 2014/53/EU about devices equipped with intentional radiators. The Declaration of Conformity and other available certifications can be downloaded from the site www.custom4u.it.

GUIDELINES FOR THE DISPOSAL OF THE PRODUCT

The crossed-out rubbish bin logo means that used electrical and electronic products shall NOT be mixed with unsorted municipal waste. For more detailed information about recycling of this product, refer to the instructions of your country for the disposal of these products.

- Do not dispose of this equipment as miscellaneous solid municipal waste, but arrange to have it collected separately.
- The re-use or correct recycling of the electronic and electrical equipment (EEE) is important in order to protect the environment and the wellbeing of humans.
- In accordance with European Directive WEEE 2012/19/EU, special collection points are available to which to deliver waste electrical and electronic equipment and the equipment can also be handed over to a distributor at the moment of purchasing a new equivalent type.
- The public administration and producers of electrical and electronic equipment are involved in facilitating the processes of the re-use and recovery of waste electrical and electronic equipment through the organisation of collection activities and the use of appropriate planning arrangements.
- Unauthorised disposal of waste electrical and electronic equipment is punishable by law with the appropriate penalties.

The format used for this manual improves use of natural resources reducing the quantity of necessary paper to print this copy.

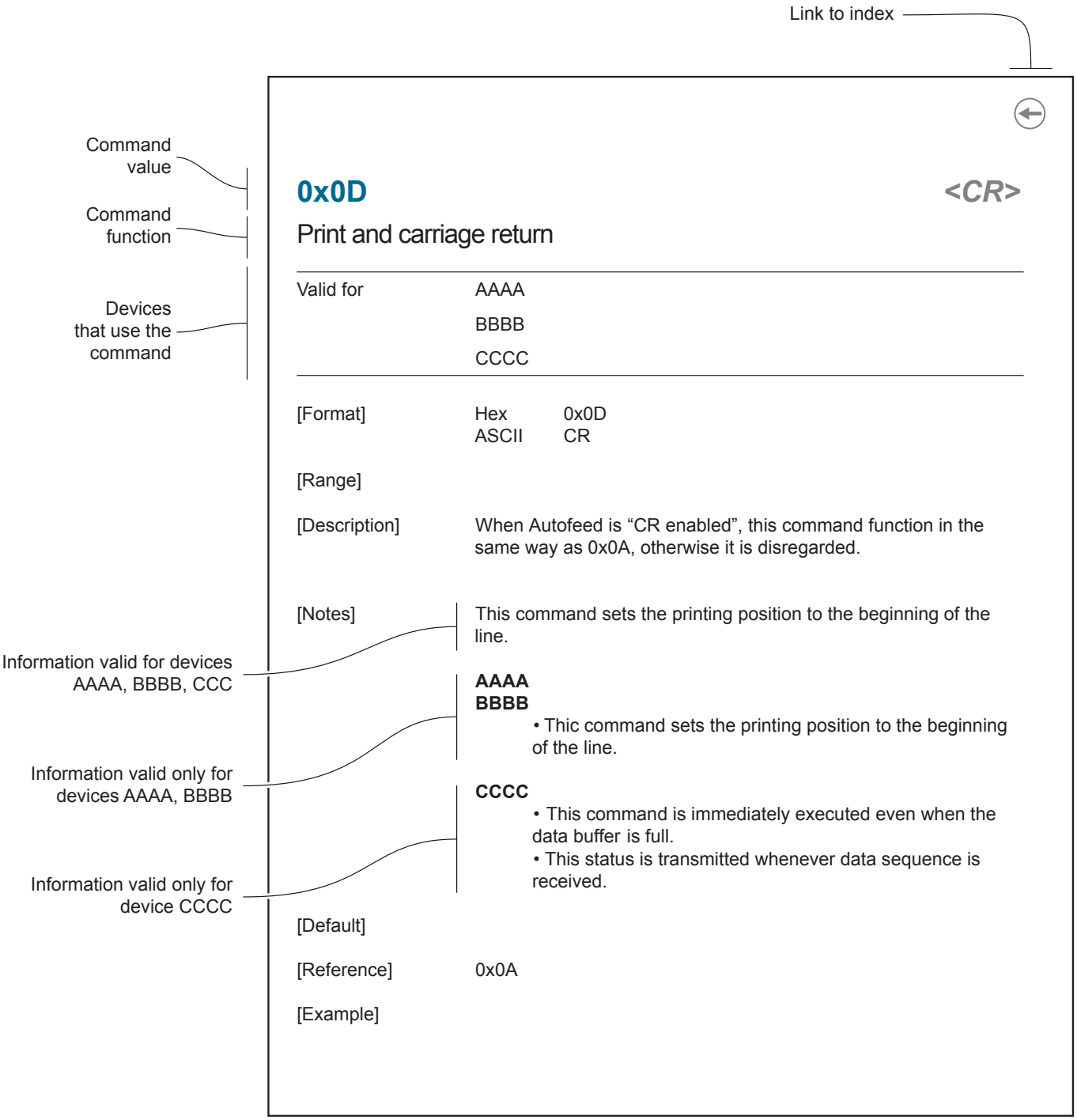
INTRODUCTION 

ESC/POS EMULATION 

INTRODUCTION

1 CONSULTING COMMANDS MANUAL

Each command reported in this manual is described as shown in the following picture. In the first heading field is reported the hexadecimal command value and the ASCII command value. In the second heading field reported the command function. In the third heading field are listed the devices on which it is possible to use the command (for example, device AAAA).



The fields shown in the scheme of the previous figure have the following meaning:

[Format]	hexadecimal and ASCII command value.
[Range]	Limits of the values the command and its variables can take.
[Description]	Description of command function.
[Notes]	Additional information about command use and settings.
[Default]	Default value of the command and its variables.
[Reference]	Pertaining commands related to described command.
[Example]	Example of using the command.

Listed below are the meanings of some of symbols that may be found in the command description:

0x	indicates the representation of the command hexadecimal value (for example 0x40 means HEX 40).
n, m, t, x, y	are optional parameters that can have different values.

ESC/POS EMULATION

1 COMMANDS LISTED IN ALPHANUMERIC ORDER

2 COMMANDS LISTED BY FUNCTION

PRINT COMMAND

LINE SPACING COMMANDS

CHARACTER COMMANDS

COMMANDS FOR BARCODE PRINTING

STATUS COMMANDS

BIT-IMAGE COMMANDS

INIT COMMAND

MACRO FUNCTIONS CONTROL

COMMANDS FOR MECHANISM CONTROL

0x09 <HT>

Horizontal tab

Valid for	P3L	
[Format]	Hex	09
	ASCII	HT
[Range]		
[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 print area, the printer sets the print position to [print area width + 1]. • Horizontal tab positions are set with 0x1B 0x44. • 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.	
[Default]		
[Reference]		
[Example]		

0x0A

<LF>

Print and line feed

Valid for	P3L	
[Format]	Hex	0A
	ASCII	LF
[Range]		
[Description]	Prints the data in the print buffer and feeds one line, based on the current line spacing.	
[Notes]	This command sets the print position to the beginning of the line.	
[Default]		
[Reference]	0x1B 0x32, 0x1B 0x33.	
[Example]		

0x0D

<*CR*>

Print and carriage return

Valid for	P3L	
[Format]	Hex	0D
	ASCII	CR
[Range]		
[Description]	When automatic line feed is enabled, this command functions the same as 0x0A; when automatic line feed is disabled, this command is ignored.	
[Notes]	• With a serial interface, the command performs as if auto line feed is disabled. • Sets the print starting position to the beginning of the line.	
[Default]		
[Reference]		
[Example]		

0x1B 0x44 <ESC D>

Set horizontal tab positions

Valid for	P3L

[Format]

Hex	1B	44	n1...nk		00
ASCII	ESC	D	n1...nk		NUL

[Range]

0x01 ≤ n ≤ 0xFF
0x00 ≤ k ≤ 0x20

[Description]

Sets horizontal tab positions
• n specifies the column number for setting a horizontal tab position calculated 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 selected with twice the width of normal characters.
• This command cancels the previous horizontal tab settings.
• When setting n = 0x08, the print position is moved to column 9 by sending 0x09.
• Up to 32 tab positions (k = 0x20) 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.
• 0x1B 0x44 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 x 24).

[Reference]

0x09

[Example]

0x1B 0x4A

<*ESC J*>

Print and paper feed

valid for	P3L

[Format]

Hex	1B	4A	n
ASCII	ESC	J	n

[Range] 0x00 ≤ n ≤ 0xFF

[Description] Prints the data in the print buffer and feeds the paper [nx 0.125 mm (0.0049”)]..

[Notes]

- After printing has been 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 0x1B 0x32 or 0x1B 0x33.
- In standard mode, the printer uses the vertical motion unit (y).
- In standard mode, the vertical motion unit (y) is used.

[Default]

[Reference]

[Example]

0x1B 0x64 <ESC d>

Print and feed paper n lines

Valid for	P3L			
[Format]	Hex	1B	64	n
	ASCII	ESC	d	n
[Range]	0x00 ≤ n ≤ 0xFF			
[Description]	Prints the data saved in the print buffer and feeds the paper 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 0x1B 0x32 or 0x1B 0x33. • The maximum paper feed amount is 1016 mm (40 inches). If the paper feed amount (n x line spacing) of more than 1016 mm (40 inches) is specified, the printer feeds the paper only 1016 mm (40 inches). • Even when the set value exceeds the maximum with the BM sensor enabled in standard mode, this command is effective. (BM = black mark.)			
[Default]				
[Reference]	0x1B 0x32, 0x1B 0x33			
[Example]				

0x1B 0x3D

Select peripheral device

Valid for	P3L

[Format]

Hex	1B	3D	n
ASCII	ESC	=	n

[Range]

[Description] Set peripheral device:

n	FUNCTION
0x00	Device disabled
0x01	Device enabled

[Notes]

[Default]

[Reference]

[Example]

0x1B 0x64 <DC2 T>

Print test page

Valid for	P3L		
[Format]	Hex	12	54
	ASCII	DC2	T
[Range]			
[Description]	Print test page		
[Notes]			
[Default]			
[Reference]			
[Example]			

LINE SPACING COMMANDS

0x1B 0x32 *<ESC 2>*

Select default line spacing

Valid for	P3L		
[Format]	Hex	1B	32
	ASCII	ESC	2
[Range]			
[Description]	Selects 3.75 mm (30 x 0.125 mm) line spacing.		
[Notes]	The line spacing can be set independently in standard mode.		
[Default]			
[Reference]	0x1B 0x33		
[Example]			

0x1B 0x33

Set line spacing

Valid for	P3L			
[Format]	Hex	1B	33	n
	ASCII	ESC	3	n
[Range]	0x00 ≤ n ≤ 0xFF			
[Description]	Sets the line spacing to [n x 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 = 0x1E			
[Reference]	0x1B 0x32			
[Example]				

0x1B 0x61

Select justification

Valid for	P3L

[Format]

Hex	1B	61	n
ASCII	ESC	a	n

[Range]

0x00 ≤ n ≤ 0x02
0x30 ≤ n ≤ 0x32

[Description]

Aligns all the data in one line to the specified position. n selects the justification as follows:

n	JUSTIFICATION
0x00, 0x30	Left justification
0x01, 0x31	Centered
0x02, 0x32	Right justification

[Notes]

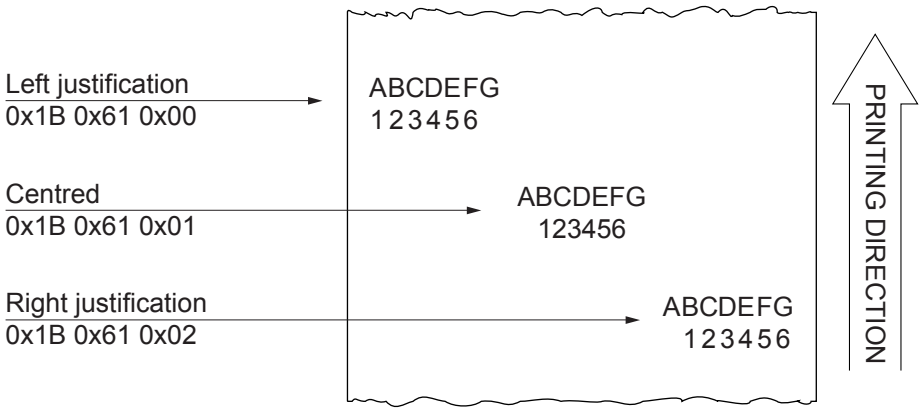
- The command is enabled only when processed at the beginning of the line in standard mode.
- This command executes justification in the printing area.
- This command justifies the space area according to 0x09, 0x1B 0x26 or 0x1B 0x5C

[Default]

n = 0x00

[Reference]

[Example]



0x1D 0x4C

<GS L>

Set left margin

Valid for	P3L

[Format]

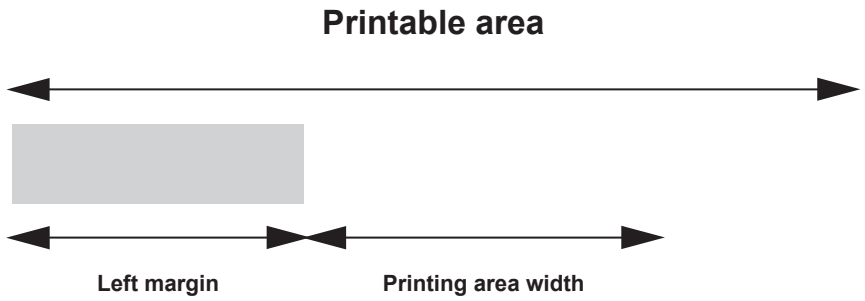
Hex	1D	4C	nL	nH
ASCII	GS	L	nL	nH

[Range]

0x00 ≤ nL ≤ 0xFF
0x00 ≤ nH ≤ 0xFF

[Description]

Sets the left margin to [(nL + nH × 256) × horizontal motion unit].



[Notes]

• If the setting exceeds the printable area, the maximum value of the printable area is used.
• If the left margin + printing area width is greater than the printable area, the printing area width is set at maximum value.
• The horizontal and vertical motion unit are specified by 0x1D 0x50. Changing the horizontal or vertical motion unit does not affect the current left margin.
• The 0x1D 0x50 command can change the horizontal (and vertical) motion unit.
• However, the value cannot be less than the minimum horizontal movement amount and it must be in even units of the minimum horizontal movement amount.

[Default]

nL = 0x00, nH = 0x00

[Reference]

0x1D 0x57

[Example]

0x1B 0x5C

Set relative print position

Valid for	P3L

[Format]

Hex	1B	5C	nL	nH
ASCII	ESC	\	nL	nH

[Range]

0x00 ≤ nL ≤ 0xFF
0x00 ≤ nH ≤ 0xFF

[Description]

Sets the print starting position based on the current position by using the horizontal or vertical motion unit.
Moves the print position to [(nL + nH x 256) x 0.125 mm] from the current position.

[Notes]

- The printer ignores any setting that exceeds the print area.
- When pitch N is specified to the right: nL+ nH x 256 = N

When pitch N is specified to the left (the negative direction), use the complement of 65536.
When pitch N is specified to the left: nL+ nH x 256 = 65536 - N

- In standard mode, the horizontal motion unit is used.

[Default]

[Reference]

0x1B 0x26

[Example]

0x1D 0x57

<GS W>

Set printing area width

Valid for	P3L

[Format]

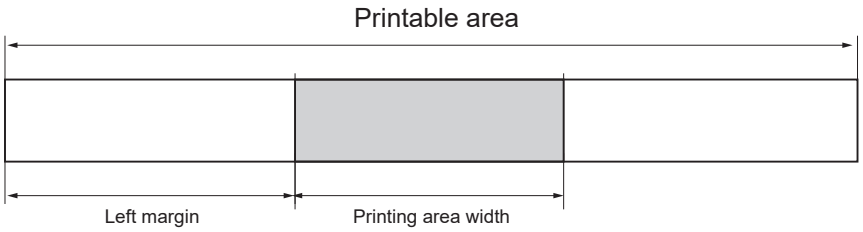
Hex	1D	57	nL	nH
ASCII	GS	W	nL	nH

[Range]

0x00 ≤ nL ≤ 0xFF,
0x00 ≤ nH ≤ 0xFF

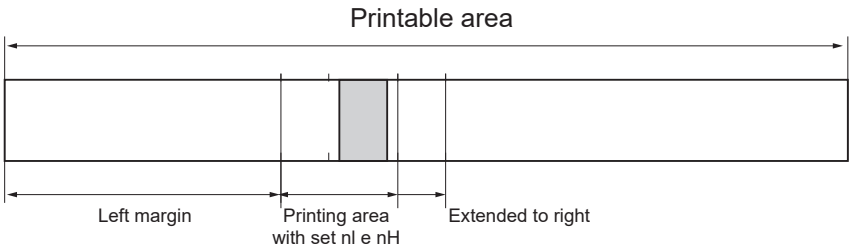
[Description]

Sets the printing area width to the area specified by nL and nH.
Set printing width to [(nL + nH x 256) x 0.125 mm (0.0049”)].

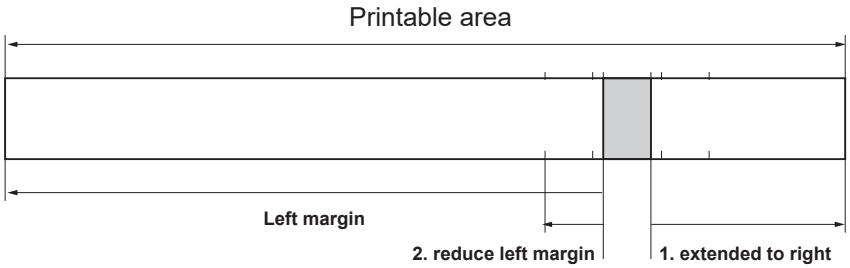


[Notes]

• This command is effective only when processed at the beginning line.
• If the setting exceeds the printable area, the maximum value of the printable area is used.
• The setting by 0x1D 0x4C takes precedence over the setting by 0x1D 0x57. If the [left margin + printing area width] exceeds the printable area, the printer uses [Printable area width - left margin]. However, the setting by 0x1D 0x57 is still reserved, even when it is not used in the current printing..
• If the width set for the printing area is less than the width of one character, please follow below process as you print character data:
• The printing area width is extended to the right to accommodate one character.
1. If the printing area width cannot be extended sufficiently, reduce the left margin to accommodate one character.



2. If the printing area width cannot be extended sufficiently, reduce the right space.



[Default]

• If the width set for the printing area is less than one vertical line, the following processing is performed only on the line in question when data other than character data (e.g., bit image, user-defined bit image) is developed:
• Extend the printing area width to the right to accommodate one line vertical for the bit image within the printable area.
• If the printing area width cannot be extended sufficiently, reduce the left margin to accommodate one vertical line.

SELECTED MODEL TYPE	NUMBER OF DOTS IN HORIZONTAL	DEFAULT VALUE
82.5 mm paper-width model	640 dots	nL = 128, nH = 2
79.5 mm paper-width model	576 dots	nL = 64, nH = 2
60 mm paper-width model	448 dots	nL = 192, nH = 1
58 mm paper-width model	432 dots	nL = 176, nH = 1

[Default]

[Reference] 0x1D 0x57

[Example]

0x1B 0x24

<ESC $>

Set absolute print position

Valid for	P3L			
[Format]	Hex	1B	24	nL
	ASCII	ESC	$	nL
[Range]	0x00 ≤ nL ≤ 0xFF, 0x00 ≤ nH ≤ 0xFF			
[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 x 256) x 0.125 mm].			
[Notes]	• Settings outside the specified printable area are ignored. • In standard mode, the horizontal motion unit (x) is used.			
[Default]	The internal character set.			
[Reference]	0x1B 0x5C, 0x1D 0x0C, 0x1D 0x5C			
[Example]				

0x18 <CAN>

Cancel current line transmitted

Valid for	P3X	
[Format]	Hex	18
	ASCII	CAN
[Range]		
[Description]	Deletes current line transmitted.	
[Notes]	• Sets the print position to the beginning of the line. • This command does not clear the receive buffer.	
[Default]		
[Reference]		
[Example]		

0x1B 0x21

<ESC !>

Select print modes

Valid for	P3L

[Format]

Hex	1B	21	n
ASCII	ESC	!	n

[Range] 0x00 ≤ n ≤ 0xFF

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

BIT	OFF/ON	n	FUNCTION	
0	Off	0x00	Character font A selected	(12 x 24)
	On	0x01	Character font B selected	(9 x17)
1	-	-	Undefined	
2	-	-	Undefined	
3	Off	0x00	Emphasized mode: OFF	
	On	0x08	Emphasized mode: ON	
4	Off	0x00	Double-height mode: OFF	
	On	0x10	Double-height mode: ON	
5	Off	0x00	Double-width mode : OFF	
	On	0x20	Double-width mode : NO	
6	-	-	Undefined	
7	Off	0x00	Underline mode: OFF	
	On	0x80	Underline mode: NO	

[Notes]

• When both double-height and double-width modes are selected, quadruple-size characters are printed.
• The printer can underline all characters, but cannot underline the space set by 0x09 or 90° clockwise rotated characters.
• The underline thickness is that specified by 0x1B 0x2D, regardless of the character size.
• When some characters in a line are double or more height, all the characters in the line are aligned at the baseline.
• 0x1B 0x4D can also select character font type. However, the setting of the last received command is effective.
• 0x1B 0x45 can also turn on or off emphasized mode. However, the setting of the last received command is effective.
• 0x1B 0x2D can also turn on or off underline mode. However, the setting of the last received command is effective.

• 0x1D 0x21 can also select character size. However, the setting of the last received command is effective.

• Emphasized mode is effective for alphanumeric and Kanji. All print modes except emphasized mode are effective only for alphanumeric.

[Default] n = 0x00

[Reference] 0x1B 0x2D, 0x1B 0x45, 0x1D 0x21

[Example]

0x1D 0x21

<GS !>

Select character size

Valid for	P3L

[Format]

Hex	1D	21	n
ASCII	GS	!	n

[Range]

0x00 ≤ n ≤ 0xFF
0x01 ≤ Enlargement in vertical direction ≤ 0x08,
\ 0x01 ≤ Enlargement in horizontal direction ≤ 0x08)

[Description]

Selects character height and width, as follows:
• Bits 0 to 3: to select character height (see table 2).
• Bits 4 to 7: to select character width (see table 1).

Table 1 Select character width

HEX	WIDTH
00	1 (normal)
10	2 (width = 2x)
20	3 (width = 3x)
30	4 (width = 4x)
40	5 (width = 5x)
50	6 (width = 6x)
60	7 (width = 7x)
70	8 (width = 8x)

Table 2 Select character height

HEX	HEIGHT
00	1 (normal)
01	2 (height = 2x)
02	3 (height = 3x)
03	4 (height = 4x)
04	5 (height = 5x)
05	6 (height = 6x)
06	7 (height = 7x)
07	8 (height = 8x)

[Notes]

• This command is effective for all characters (alphanumeric and Kanji), except for HRI characters.
• If n falls 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 0x1B 0x21 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 = 0x00

[Reference]

0x1B 0x21

[Example]

0x1D 0x42

<GS B>

Turn black and white reverse printing mode on or off

Valid for	P3L

[Format]

Hex	1D	42	n
ASCII	GS	B	n

[Range] 0x00 ≤ n ≤ 0xFF

[Description] Turns black and white reverse printing mode on or off, based on the value of n:
- when the Least Significant Bit (LSB) of n is 0, white/black reverse printing is turned off.
- when the Least Significant Bit (LSB) of n is 1, white/black reverse printing 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 0x1B 0x56.
• This command does not affect bit images, user-defined bit images, bar codes, HRI characters, and spacing skipped by 0x09, 0x1B 0x26, and 0x1B 0x5C.
• 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 = 0x00

[Reference]

[Example]

0x1B 0x56

<ESC V>

Set 90° rotated print mode

Valid for	P3L

[Format]

Hex	1B	56	n
ASCII	ESC	V	n

[Range] n = 0x00, 0x01, 0x30, 0x31

[Description] Turns 90° rotation mode on or off based on the value of n as follows:

n	FUNCTION
0x00, 0x30	Turns off 90° clockwise rotation mode
0x01, 0x31	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 = 0x00

[Reference] 0x1B 0x21

[Example]

0x1B 0x20 <ESC SP>

Set right-side character spacing

Valid for	P3L			
[Format]	Hex	1B	20	n
	ASCII	ESC	SP	n
[Range]	0x00 ≤ n ≤ 0xFF			
[Description]	Sets the right-side character spacing to [n x 0.125 mm].			
[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.			
[Default]	n = 0x00			
[Reference]				
[Example				

0x1B 0x25 <ESC %>

Enable or disable user-defined characters

Valid for	P3L

[Format]

Hex	1B	25	n
ASCII	ESC	%	n

[Range] 0x00 ≤ n ≤ 0xFF

[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 resident character set is automatically selected.
• n is available only for the least significant bit.

[Default] n = 0x00

[Reference] 0x1B 0x26, 0x1B 0x3F

[Example]

0x1B 0x26

Defines user-defined characters

Valid for	P3L

[Format]

Hex	1B	26	y	c1	cn	x1[d0...dk] ... xn[d0...dk]
ASCII	ESC	&	y	c1	cn	x1[d0...dk] ... xn[d0...dk]

[Range]

y = 0x03 0x20 ≤ c1 ≤ cn ≤ 0x7E
0x00 ≤ x ≤ 0x0C (when Font A (12 x 24) is selected)
0x00 ≤ x ≤ 0x09 (when Font B (9 x 17) is selected)

0 ≤ d1 ... d(y×xk) ≤ 0xFF

[Description]

Defines the user-defined character pattern for the specified character codes.
• 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 <0x20>H to <0x7E>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 (yxx) bytes.
• Set a corresponding bit to 1 to print a dot or 0 not to print a dot.
• This command can define user-defined characters for each font independently. To select a font, use 0x1B 0x21 or 0x1B 0x4D.
• 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) 0x1B 0x40 is executed.
2) 0x1D 0x2A is executed.
3) 0x1B 0x3F is executed.
4) The power is turned off.
• When user-defined characters are defined in Font B (9 x 17), only the most significant bit of the 3rd byte of data in vertical direction is effective.

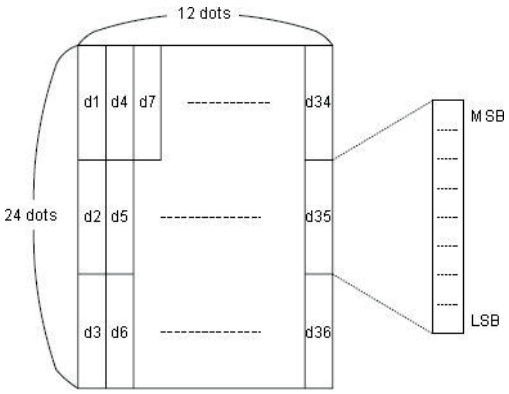
[Default]

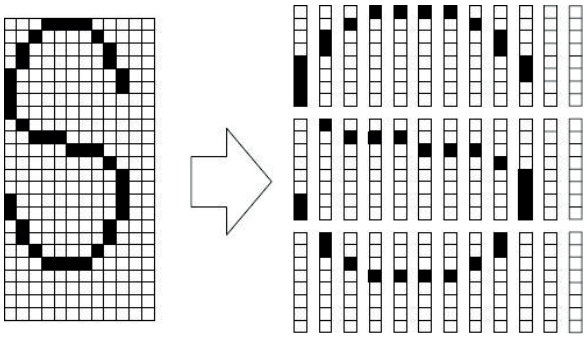
Internal character set

[Reference]

0x1B 0x25, 0x1B 0x3F

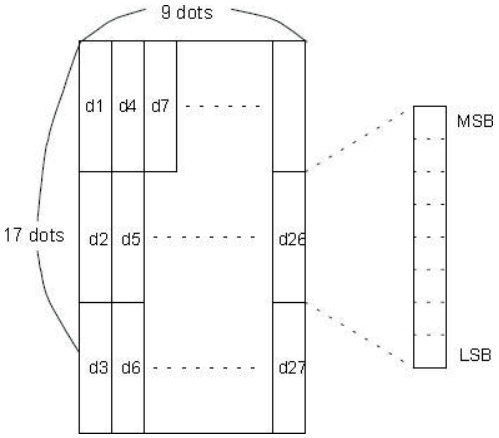
[Example] When Font A (12 x 24) is selected.

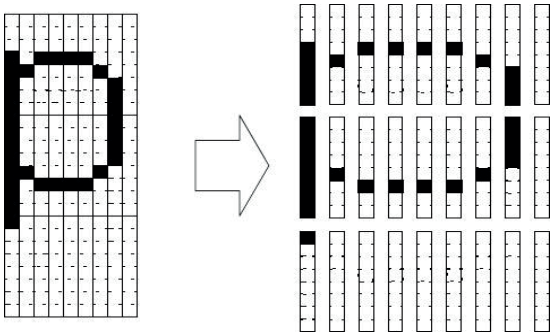




d1= <0F>H d4 = <30>H d7 = <40>H . . . . d2 = <03>H d5 = <80>H d8 = <40>H . . . . d3 = <00>H d6 = <00>H d9 = <20>H . ....

When font B (9 x17) is selected.





d1 = <1F>H d4 = <08>H d7 = <10>H... d2 = <FF>H d5 = <08>H d8 = <04>H... d3 = <80>H d6 = <00>H d9 = <00>H...

0x1B 0x2D

Turn underline mode on or off

Valid for	P3L

[Format]

Hex	1B	2D	n
ASCII	ESC	-	n

[Range]

0x00 ≤ n ≤ 0x02
0x30 ≤ n ≤ 0x32

[Description] Turns underline mode on or off based on the value of n as follows:

n	FUNCTION
0x00, 0x30	Turns off underline mode
0x01, 0x31	Turns on underline mode (1 dot thick)
0x02, 0x32	Turns on underline mode (2 dot thick)

[Notes]

- The device can underline all characters, but cannot underline the space and right-side character spacing set by command 0x09.
- The printer does not underline 90° clockwise rotated characters and white/black inverted characters.
- When underline mode is turned off by setting the value of n to 0x00 or 0x30, 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 0x1B 0x21. Note, however, that the last received command is effective.

[Default] n = 0x00

[Reference] 0x1B 0x21

[Example]

0x1B 0x3F

<ESC ?>

Cancel user-defined characters

Valid for	P3L

[Format]

Hex	1B	3F	n
ASCII	ESC	?	n

[Range] 0x20 ≤ n ≤ 0x7E

[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 0x1B 0x21.
- If a user-defined characters have not been defined, the printer ignores this command.

[Default]

[Reference] 0x1B 0x26, 0x1B 0x25

[Example]

0x1B 0x45

Turn bold mode on or off

Valid for	P3L

[Format]

Hex	1B	45	n
ASCII	ESC	E	n

[Range] 0x00 ≤ n ≤ 0xFF

[Description] Turns bold mode on or off, based on the n value:
- when the Least Significant Bit (LSB) of n is 0, the bold mode is off.
- when the Least Significant Bit (LSB) of n is 1, the bold mode is on.

[Notes]
• Only the Least Significant Bit (LSB) of n is effective.
• 0x1B 0x21 also turns on and off the bold mode. However, the last received command is the effective one.

[Default] n = 0x00

[Reference] 0x1B 0x21

[Example]

0x1B 0x47

<ESC G>

Turn double-strike mode on or off

Valid for	P3L			
[Format]	Hex	1B	47	n
	ASCII	ESC	G	n
[Range]	0x00 ≤ n ≤ 0xFF			
[Description]	Turns double-strike mode on or off, based on the n value: • When the Least Significant Bit (LSB) of n is 0, the double-strike mode is off. • When the Least Significant Bit (LSB) of n is 1, the double-strike mode is on.			
[Notes]	• Only the Least Significant Bit (LSB) of n is effective. • Device output is the same in double-strike and bold mode.			
[Default]	n = 0x00			
[Reference]	0x1B 0x45			
[Example]				

0x1B 0x4D

Select character font

Valid for	P3L

[Format]

Hex	1B	4D	n
ASCII	ESC	M	n

[Range] n = 0x00, 0x01, 0x30, 0x31

[Description] Selects characters font.

n	FUNCTION
0x00, 0x30	Character Font A (12 x 24) selected.
0x01, 0x31	Character Font B (9x17) selected.

[Notes] 0x1B 0x21 can also select character font types. However the setting of the last received command is effective.

[Default]

[Reference] 0x1B 0x21

[Example]

0x1B 0x52 <ESC R>

Select an international character

Valid for	P3L

[Format]

Hex	1B	52	n
ASCII	ESC	R	n

[Range] 0x00 ≤ n ≤ 0x0A

[Description] Selects the international character set n according to the table below:

	HEX
n	CHARACTER SET
0x00	U.S.A.
0x01	France
0x02	Germany
0x03	United Kingdom
0x04	Denmark I
0x05	Sweden
0x06	Italy
0x07	Spain I
0x08	Japan
0x09	Norway
0x0A	Denmark II
0x0B	Spain II
0x0C	Latin America
0x0D	Korea
0x0E	Slovenia/Croatia
0x0F	China

[Notes]

[Default] n = 0x00

[Reference]

[Example]

0x1B 0x74 <ESC t>

Select character code table

Valid for	P3L

[Format]

Hex	1B	74	n
ASCII	ESC	t	n

[Range] 0x01 ≤ n ≤ 0x35, n = 0xFF

[Description] Select a page n from the character code table as follows:

n	PAGE
0x00	CP437 - U.S.A., Standard Europe
0x01	Katakana
0x02	CP850 - Multilingual
0x03	CP860 - Portuguese
0x04	CP863 - Canadian/French
0x05	CP865 - Nordic
0x06	WCP1251 - Cyrillic
0x07	CP866 - Cyrillic #2
0x08	MIK - Cyrillic /Bulgarian
0x08	PC857 - Turkish
0x09	CP755 - East Europe, Latvian 2
0x0A	Iran
0x0B	Reserve
0x0C	Reserve
0x0D	Reserve
0x0E	Reserve
0x0F	CP862 - Hebrew
0x10	WCP1252 Latin I
0x11	WCP1253 - Greek]
0x12	CP852 - Latina 2]
0x13	CP858 Multilingual Latin I+Euro)
0x14	Iran II
0x15	Latvian
0x16	CP864 - Arabic
0x17	ISO-8859-1 - West Europe
0x18	CP737 - Greek
0x19	WCP1257 - Baltic
0x1A	Thai

n	PAGE
0x1B	CP720 - Arabic
0x1C	CP855
0x1D	CP857 - Turkish
0x1E	WCP1250 - Central Europe
0x1F	CP775
0x20	WCP1254 - Turkish
0x21	WCP1255 - Hebrew
0x2A	WCP1256 - Arabic
0x2B	WCP1258 - Vietnam
0x2C	ISO-8859-2 - Latin 2
0x2D	ISO-8859-3 - Latin 3
0x2E	ISO-8859-4 - Baltic
0x2F	ISO-8859-5 - Cyrillic
0x30	ISO-8859-6 - Arabic
0x31	ISO-8859-7 - Greek
0x32	ISO-8859-8 - Hebrew
0x33	ISO-8859-9 - Turkish
0x34	ISO-8859-15 - Latin 3
0x35	Thai2
0x36	CP856
0x37	CP874

[Notes]

[Default] n = 0x00

[Reference]

[Example]

0x1B 0x7B

<ESC {>

Turn upside-down printing mode on or off

Valid for	P3L			
[Format]	Hex	1B	7B	n
	ASCII	ESC	{	n
[Range]	0x00 ≤ n ≤ 0xFF			
[Description]	Turns upside-down printing mode on or off, based on the value of n: • When the Least Significant Bit (LSB) of n is 0, the upside-down printing mode is off. • When the Least Significant Bit (LSB) of n is 1, the upside-down printing mode is 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. • This command does not affect printing in page mode. • In upside-down printing mode, the printer rotates the line to be printed by 180° and then prints it.			
[Default]	n = 0x00			
[Reference]				
[Example]				

0x1D 0x48 <GS H>

Select printing position of Human Readable Interpretation (HRI) characters

Valid for	P3L

[Format]

Hex	1D	48	n
ASCII	GS	H	n

[Range]

0x00 ≤ n ≤ 0x03
0x30 ≤ n ≤ 0x33

[Description]

Selects the printing position of HRI characters when printing barcodes.
n selects the printing positions as follows:

n	FUNCTION
0x00, 0x30	Not printed
0x01, 0x31	Above the barcode
0x02, 0x32	Below the barcode
0x03, 0x33	Both above the below the barcode

[Notes]

- HRI characters are printed using the font specified by 0x1D 0x66.
- The settings are effective until the device is reset or the power is turned off.

[Default]

n = 0x00

[Reference]

0x1D 0x66, 0x1D 0x6B

[Example]

0x1D 0x66

<GS f>

Select font for HRI characters

Valid for	P3L

[Format]

Hex	1D	66	n
ASCII	GS	f	n

[Range] n = 0x00, 0x01, 0x30, 0x31

[Description] Selects a font for the HRI (Human Readable Interpretation) characters used when printing a 1D barcode, based on the value of n as follows:

n	FONT
0x00, 0x30	Font A (12x24)
0x01, 0x31	Font B (9x17)

[Notes]
- HRI indicates Human Readable Interpretation.
- HRI characters are printed at the position specified by 0x1D 0x48.

[Default] n = 0x00

[Reference] 0x1D 0x48, 0x1D 0x6B

[Example]

0x1D 0x68

<GS h>

Set 1D barcode height

Valid for	P3L

[Format]	Hex	1D	68	n
	ASCII	GS	h	n

[Range] 0x01 ≤ n ≤ 0xFF

[Description] Selects the height of the bar code.
n specifies the number of dots in the vertical direction.

[Notes]

[Default] n = 0xA2

[Reference] 0x1D 0x6B

[Example]

0x1D 0x6B

<GS k>

Print 1D barcode

Valid for	P3L					
[Format 1]	Hex	1D	6B	m	[d1..dk]	00
	ASCII	GS	k	m	[d1..dk]	NUL
[Format 2]	Hex	1D	6B	m	n	[d1..dn]
	ASCII	GS	k	m	n	[d1..dn]
[Range]	Format 1	0x00 ≤ m ≤ 0x06 (k and d depend on the bar code system used)				
	Format 2	0x41 ≤ m ≤ 0x49 (n and d depend on the bar code system				

[Description] Selects a bar code system and prints the bar code.
m selects a bar code system as follows:

Format 1

m	BARCODE SYSTEM	NUMBER OF CHARACTERS	REMARKS
0x00	UPC-A	0x0B	0x30 ≤ d ≤ 0x39
0x01	UPC-E	0x0B	0x30 ≤ d ≤ 0x39
0x02	EAN13 (JAN)	0x0C	0x30 ≤ d ≤ 0x39
0x03	EAN8 (JAN)	0x07	0x30 ≤ d ≤ 0x39
0x04	CODE39	0x01 ≤ k	0x30 ≤ d ≤ 0x39, 0x41 ≤ d ≤ 0x5A, 0x20, 0x24, 0x25, 0x2B, 0x2D, 0x2E, 0x2F
0x05	ITF	0x01 ≤ k (even number)	0x30 ≤ d ≤ 0x39
0x06	CODABAR	0x01 ≤ k	0x30 ≤ d ≤ 0x39, 0x41 ≤ d1 ≤ 0x44, 0x24, 0x2B, 0x2D, 0x2E, 0x2F, 0x3A
0x07	CODE93	0x01 ≤ k ≤ 0xFF	0x01 ≤ d ≤ 0x7F
0x08	CODE128	0x02 ≤ k ≤ 0xFF	0x01 ≤ d ≤ 0x7F

Format 2

m	BARCODE SYSTEM	NUMBER OF CHARACTERS	REMARKS
0x41	UPC-A	0x0B ≤ n ≤ 0x0C	0x30 ≤ d ≤ 0x39
0x42	UPC-E	0x0B ≤ n ≤ 0x0C	0x30 ≤ d ≤ 0x39
0x43	EAN13 (JAN)	0x0C ≤ n ≤ 0x0D	0x30 ≤ d ≤ 0x39
0x44	EAN8 (JAN)	0x07 ≤ n ≤ 0x08	0x30 ≤ d ≤ 0x39
0x45	CODE39	0x01 ≤ n ≤ 0xFF	0x30 ≤ d ≤ 0x39, 0x41 ≤ d ≤ 0x5A, 0x20, 0x24, 0x25, 0x2B, 0x2D, 0x2E, 0x2F
0x46	ITF	0x01 ≤ n ≤ 0xFF	0x30 ≤ d ≤ 0x39
0x47	CODABAR	0x01 ≤ n ≤ 0xFF	0x30 ≤ d ≤ 0x39, 0x41 ≤ d1 ≤ 0x44, 0x24, 0x2B, 0x2D, 0x2E, 0x2F, 0x3A
0x48	CODE93	0x01 ≤ n ≤ 0xFF	0x00 ≤ d ≤ 0x7F
0x49	CODE128	0x02 ≤ n ≤ 0xFF	0x00 ≤ d ≤ 0x7F

[Notes]

• This command ends with a NUL code.
• When the bar code system used is UPC-A or UPC-E, the printer prints the bar codedata 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 andprocesses 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.
• 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 0x1B 0x32 or 0x1B 0x33.
• 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.

When using thermal label:
• If the height of bar code is not fit for current label, the exceeded part will be printed on next label.

When using CODE93 (m = 72):
• The printer print one (□) as start character at the beginning of HRI string.
• The printer print one (□) as end character at the end of HRI string.
• The printer print HRI character (■ + one text character) as control character (<00>H to <1F>H and <7F>H)

CONTROL CHARACTER		
HEX	ASCII	HRI character
0x00	NUL	U
0x01	SOH	A
0x02	STX	B
0x03	ETX	C
0x04	EOT	D
0x05	ENQ	E
0x06	ACK	F
0x07	BEL	G
0x08	BS	H
0x09	HT	I
0x0A	LF	J
0x0B	VT	K
0x0C	FF	L
0x0D	CR	M
0x0E	SO	N
0x0F	SI	O
0x10	DEL	P
0x11	DC1	Q
0x12	DC2	R
0x13	DC3	S
0x14	DC4	T
0x15	NAK	U
0x16	SYN	V
0x17	ETB	W
0x18	CAN	X
0x19	EM	Y
0x1A	SUB	Z
0x1B	ESC	A
0x1C	FS	B
0x1D	GS	C
0x1E	RS	D
0x1F	US	E
0x7F	DEL	T

[Example]

Printing 0x1D 0x6B 0X48 0X07 0X43 0X6F 0X64 0X65 0X0D 0X39 0X33

When CODE128 (m = 73) is used:

• When using CODE128 in this printer, take the following points into account for data transmission:

[Format 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.

[Format 2] Special characters are defined by combining two characters “{“ and one character. The ASCII character “{“ is defined by transmitting “{“ twice consecutively.

TRANSMIT DATA		
HEX	ASCII	Specific character
0x7B, 0x53	SHIFT	{S
0x7B, 0x41	CODE A	{A
0x7B, 0x42	CODE B	{B
0x7B, 0x43	CODE C	{C
0x7B, 0x31	FNC1	{1
0x7B, 0x32	FNC2	{2
0x7B, 0x33	FNC3	{3
0x7B, 0x34	FNC4	{4
0x7B, 0x7B	“{“	{{

[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.0x1D 0x6B 0X49 0X04 0X7B 0X42 0X4E 0X70 0X2E 0X7B 0X44 0X0C 0X22 0X42

• 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 tops 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.

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).

When UPC-E is used, introducing the barcode characters, the device prints:

TRANSMITTED DATA											PRINTED DATA					
d1	d2	d3	d4	d5	d6	d7	d8	d9	d10	d11						
0	0-9	0-9	0	0	0	0	0	0-9	0-9	0-9	d2	d3	d9	d10	d11	0
0	0-9	0-9	1	0	0	0	0	0-9	0-9	0-9	d2	d3	d9	d10	d11	1
0	0-9	0-9	2	0	0	0	0	0-9	0-9	0-9	d2	d3	d9	d10	d11	2
0	0-9	0-9	3-9	0	0	0	0	0	0-9	0-9	d2	d3	d4	d10	d11	3
0	0-9	0-9	0-9	1-9	0	0	0	0	0	0-9	d2	d3	d4	d5	d11	4
0	0-9	0-9	0-9	0-9	1-9	0	0	0	0	5-9	d2	d3	d4	d5	d6	d11

[Default]

[Reference] 0x1D 0x48, 0x1D 0x66, 0x1D 0x68, 0x1D 0x77

0x1D 0x77

<GS w>

Set 1D barcode width

Valid for	P3L

[Format]

Hex	1D	77	n
ASCII	GS	w	n

[Range] 0x01 ≤ n ≤ 0x06

[Description] Sets the horizontal size of the bar code. n specifies the bar code width:

n	MODULE WIDTH (mm)	Binary-level Barcode	
		Thin Element Width (mm)	Thick Element Width(mm)
0x02	0.250	0.250	0.625
0x03	0.375	0.375	1.000
0x04	0.560	0.500	1.250
0x05	0.625	0.625	1.625
0x06	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

[Notes] This command is enabled only when inserted at the beginning of a line.

[Default] n = 0x03

[Reference] 0x1D 0x6B

[Example]

0x1D 0x78

<GS x>

Set barcode printing left

Valid for	P3L			
[Format]	Hex	1D	78	n
	ASCII	GS	x	n
[Range]				
[Description]	The print bar code staring positions is: 0x00 -> 0xFF.			
[Notes]				
[Reference]				
[Example]				

0x10 0x04 <DLE EOT>

Real-time status transmission

Valid for	P3L

[Format]

Hex	10	04	n
ASCII	DLE	EOT	n

[Range] 0x01 ≤ n ≤ 0x04

[Description] Transmits the selected status when this command is received. The status to be transmitted is indicated in the following table:

n = 0x01	transmits device status
n = 0x02	transmits off-line status
n = 0x03	transmits error status
n = 0x04	transmits paper roll sensor status

Device status (n = 0x01)

BIT	OFF/ON	HEX	FUNCTION
0	Off	00	Not used. Fixed to off
1	On	02	Not used. Fixed to on
2	Off	00	Drawer open/close signal is LOW.(connector pin3)
	On	04	Drawer open/close signal is HIGH.(connector pin3)
3	-	-	Undefined
4	On	10	Not used. Fixed to on
5	-	-	Undefined
6	-	-	Undefined
7	Off	00	Not used. Fixed to off

Off-line status (n = 0x02)

BIT	OFF/ON	HEX	FUNCTION
0	Off	00	Not used. Fixed to off
1	On	02	Not used. Fixed to on
2	Off	00	Cover closed
	On	04	Cover opened
3	Off	00	Paper is not being fed by the paper feed button
	On	08	Paper is being fed by the paper feed button.
4	On	10	Not used. Fixed to on
5	-	-	Undefined
6	Off	00	No error
	On	40	Error occurred.
7	Off	00	Not used. Fixed to off

Error status (n = 0x03)

BIT	OFF/ON	HEX	FUNCTION
0	Off	00	Not used. Fixed to off
1	On	02	Not used. Fixed to on
2	-	-	RESERVED
3	Off	00	No auto cutter error.
	On	08	Auto cutter error occurred
4	On	10	Not used. Fixed to on
5	Off	00	No unrecoverable error
	On	20	Unrecoverable error occurred
6	Off	00	No auto-recoverable error
	On	40	Auto recoverable error occurred
7	Off	00	Not used. Fixed to off

Bit 6: Bit 6 is On when printing is stopped due to high print head temperature until the print head temperature drops sufficiently or when the paper roll cover is opened during printing.

Paper roll sensor status (n = 0x04)

BIT	OFF/ON	HEX	FUNCTION
0	Off	00	Not used. Fixed to off
1	On	02	Not used. Fixed to on
2	-	-	Undefined
3	-	-	Undefined
4	On	10	Not used. Fixed to on
5, 6	Off	00	Paper end sensor: Paper present
	On	60	Paper end sensor: Paper not present
7	Off	00	Not used. Fixed to off

[Notes]

[Default]

[Reference] 0x10 0x05, 0x1D 0x61

[Example]

0x10 0x05 <DLE ENQ>

Real-time request to device

Valid for	P3L

[Format]

Hex	10	05	n
ASCII	DLE	ENQ	n

[Range] 0x01 ≤ n ≤ 0x02

[Description] Responds to a request from the host computer, n specifies the request as follows:

n	Request
0x01	Recover from an error and restart printing from the line where the error occurred
0x02	Recover from an error after clearing the receive and print buffers

[Notes]

- This command is effective only when an auto cutter error, a BM detecting error or a platen-open error occurs.
- The printer starts processing data upon receiving this command.
- This command is executed even when the printer is offline, the receive buffer is full, or there is an error status with a serial interface model.
- With a parallel interface model, this command can't be executed when the printer is busy.
- The status is also transmitted whenever the data sequence of <10>H<05>H<n> (0x01 ≤ n ≤ 0x02) is received.

[Reference] 0x1B 0x40

[Example] If you attempt to transmit 0x1B 0x33 to the printer, but DTR (DSR for the host computer) goes to MARK before n is transmitted, and 0x10 0x05 interrupts before n is received, the code <10>H for 0x10 0x05 is processed as the code for 0x1B 0x33 <10>H.

- 0x10 0x05 enables the printer to recover from an error after clearing the data in the receive buffer and the print buffer. The printer retains the settings (by 0x1B 0x21, 0x1B 0x33, etc.) that were in effect when the error occurred. The printer can be initialized completely by using this command and 0x1B 0x40. This command is enabled only for errors that have the possibility of recovery, except for print head temperature error.

0x10 0x14 <DLE DC4>

Generate pulse at real-time

Valid for	P3L

[Format]

Hex	10	14	n	m	t
ASCII	DLE	DC4	n	m	t

[Range]

n = 0x01
m = 0x00, 0x01
0x01 ≤ t ≤ 0x08

[Description]

Outputs the pulse specified by t to connector pin m as follows in real time:

m	FUNCTION
0x00	Drawer kick-out connector pin2
0x01	Drawer kick-out connector pin5

The pulse ON time is [t x 100 ms] and the OFF time is [t x 100 ms].

[Notes]

• When the pulse is output to the connector pin specified while 0x1B 0x70 or 0x10 0x14 is executed while this command is processed, this command is ignored.
• With a serial interface model, this command is executed even when the printer is receive the command.
• With a parallel interface model, this command is not executed even when the printer is receive the command.
• If printer data includes the same character strings as this command, the printer performs the same operation specified by this command. The user must consider this.
• This command should not be used within the data sequence of another command that consists of 2 or more bytes.
• This command is effective even when the printer is disabled with 0x1B 0x3D (Select peripheral device).

[Reference]

0x1B 0x70

[Example]

0x1D 0x72

<GS r>

Transmit status

Valid for	P3L

[Format]

Hex	1D	72	n
ASCII	GS	r	n

[Range] n = 0x01, 0x31

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

n	FUNCTION
0x01, 0x31	Transmit paper sensor status

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.

[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 0x1D 0x61, the status transmitted by 0x1D 0x72 and the ASB status must be differentiated using.
• The status types to be transmitted are shown below: Paper sensor status (n = 0x01, 0x31):

BIT	OFF/ON	HEX	FUNCTION
0	-	-	Undefined
1	-	-	Undefined
2, 3	Off	00	Paper end sensor: paper present
	On	0C	Paper end sensor: paper not present
4	Off	00	Not used. Fixed to Off
5	-	-	Undefined
6	-	-	Undefined
7	Off	00	Not used. Fixed to Off

[Default]

[Reference] 0x10 0x04, 0x1D 0x61

[Example]

0x1B 0x70 <ESC p>

Generate pulse on drawer connector

Valid for	P3L

[Format]

Hex	1B	70	m	t1	t2
ASCII	ESC	p	m	t1	t2

[Range]

m = 0x00, 0x01, 0x30, 0x31
0x00 ≤ t1 ≤ 0xFF
0x00 ≤ t2 ≤ 0xFF

[Description]

Outputs the pulse specified by t1 and t2 to connector pin m as follow:
On time= t1 x 2 millisecond
Off time= t2 x 2 millisecond

m	CONNECTOR PIN
0x00, 0x30	Drawer kick - out connector pin 2
0x01, 0x31	Drawer kick - out connector pin 5.

[Notes]

- The pulse ON time is (t1 × 2) ms and the pulse OFF time is (t2 × 2) ms.
- If t2 < t1, the OFF time is (t1 × 2) ms.

[Default]

[Reference]

[Example]

0x1D 0x49

<GS I>

Transmit device ID

Valid for	P3L

[Format]

Hex	1D	49	n
ASCII	GS	I	n

[Range]

0x01 ≤ n ≤ 0x03
0x31 ≤ n ≤ 0x33
n = 0xFF

[Description]

• Transmit the printer ID or the information of the printer specified.
• The printer IDs that can be specified are as follows:

n	DEVICE ID	SPECIFICATION
0x01, 0x31	Printer model ID	Hex:20/decimal:32
0x02, 0x32	Type ID	See table[Type ID]

n = 0x02, 0x32 Type ID

BIT	OFF/ON	HEX	FUNCTION
0	Off	00	Multi-byte code characters not supported
	On	01	Multi-byte code characters supported
1	Off	00	Autocutter not supplied
	On	02	Autocutter supplied
2	-	-	Undefined
3	-	-	Undefined
4	Off	00	Not used. Fixed to off
5	-	-	Not used
6	-	-	Not used
7	Off	00	Fixed

• The information B that can be specified is as follows:

n	TYPE OF PRINTER INFORMATION	CONTENTS
0x41	Firmware version	Depends on firmware version
0x42	Manufacturer	“EPOSN”
0x43	Printer name	“TM-T88V”
0x44	Serial number	Depends on serial number
0x45	Type of mounted additional fonts	Simplified Chinese model: ”CHINA GB18030”

[Notes]

[Reference]

[Example]

0x1D 0x28 0x48

<GS (H>

Transmit device ID

Valid for	P3L

[Format]												
	Hex	1D	28	48	pl	pH	fn	m	d1	d2	d3	d4
	ASCII	GS	(	H	pl	pH	fn	m	d1	d2	d3	d4

[Range] (pl + pH x 256) = 6 (pl = 0x06, pH = 0x00)
Fn = 0x30, m = 0x30
0x20 ≤ d ≤ 0x7E

[Description] Saves the process ID specified by (d1, d2, d3, d4) for the data processed immediately before this function.

[Notes]

[Reference]

[Example]

0x1B 0x2A

<ESC *>

Select bit image mode

Valid for	P3L						
[Format]	Hex	1B	2A	m	nL	nH	d1...dk
	ASCII	ESC	*	m	nL	nH	d1...dk

[Range]

m = 0x00, 0x01, 0x20, 0x21
0x00 ≤ nL ≤ 0xFF
0x00 ≤ nH ≤ 0x03
0x00 ≤ d ≤ 0xFF

[Description]

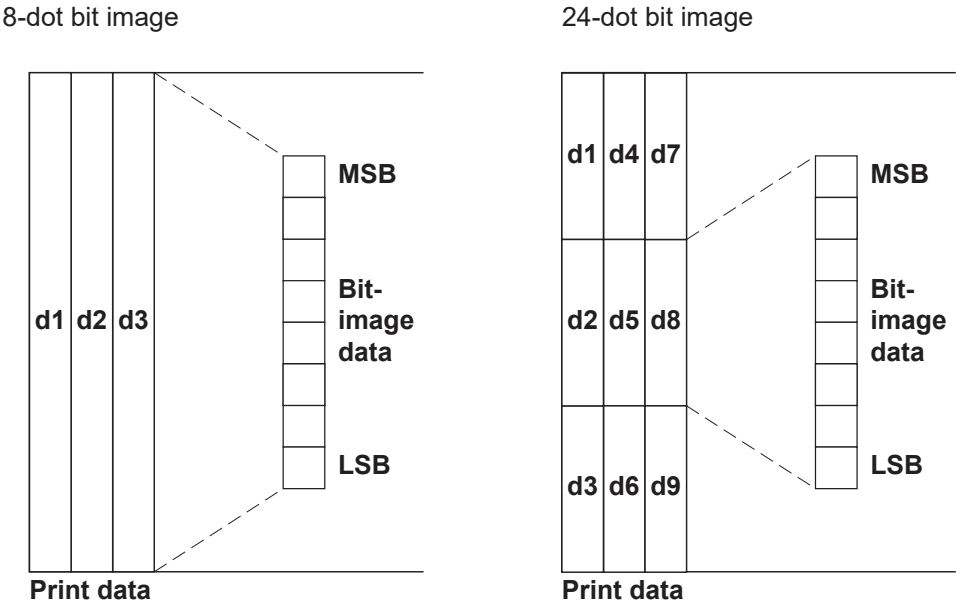
Selects a bit image mode using m for the number of dots specified by nL and nH, as follows:

m	MODE	VERTICAL DIRECTION		HORIZONTAL DIRECTION	
		N. DOTS	DPI	DPI	N. DATA (k)
0x00	8 dots single density	8	67.7	101.6	nL + nH × 256
0x01	8 dots double density	8	67.7	203.2	nL + nH × 256
0x20	24 dots single density	24	203.2	101.6	(nL + nH × 256) × 3
0x21	24 dots double density	24	203.2	203.2	(nL + nH × 256) × 3

[Notes]

• If the value of m is out of the specified range, nL and the data following are processed as normal data.
• The nL and nH indicate the number of dots in the bit image in the horizontal direction. The number of dots is calculated by nL + nH x 256.
• If the bit-image data input exceeds the number of dots to be printed on a line, the excess data is ignored.
• d specifies the bit image data. Set a corresponding bit to 1 to print a dot or to 0 not to print a dot.
• If the width of the printing area set by 0x1D 0x4C and 0x1D 0x57 less than the width required by the data sent with the 0x1B 0x2A command, the following will be performed on the line in question (but the printing cannot exceed the maximum printable area):
Step 1: The width of the printing area is extended to the right to accommodate the amount of data.
Step 2: If step 1 does not provide sufficient width for the data, the left margin is reduced to accommodate the data. For each bit of data in single-density mode (m = 0x00, 0x20), the printer prints two dots: for each bit of data in double-density mode (m = 0x01, 0x21), the printer prints one dot. This must be considered in calculating the amount of data that can be printed in one line.
• 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 print mode.
• The relationship between the image data and the dots to be printed is described in figure.

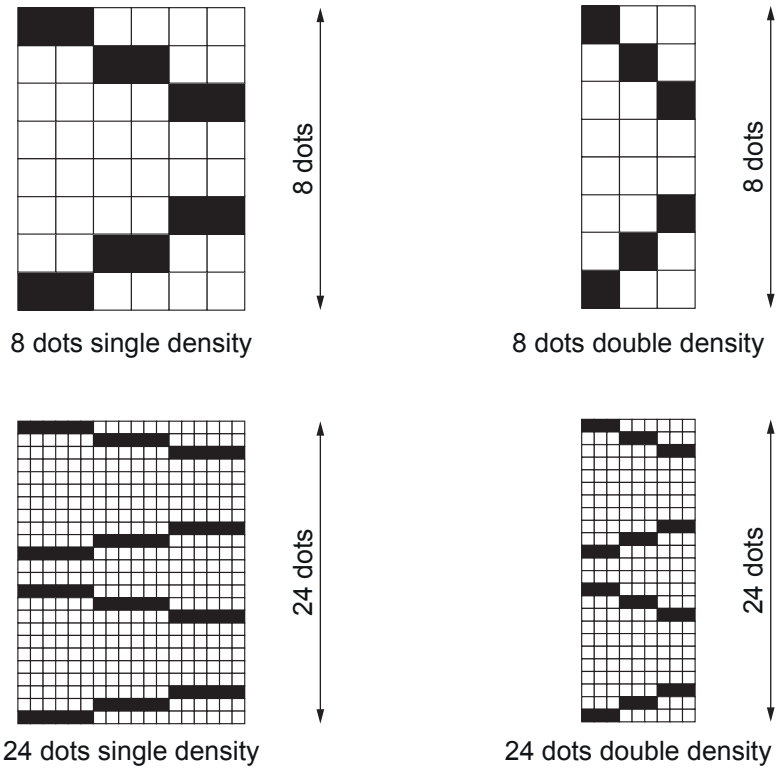
• When 8-dot bit image is selected:



[Default]

[Reference]

[Example]



0x1D 0x2A

<GS *>

Define received bit image

Valid for	P3L

[Format]

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

[Range]

0x01 ≤ x ≤ 0xFF
0x01 ≤ y ≤ 0x30
x × y ≤ 1536
0x00 ≤ d ≤ 0xFF

[Description]

Defines a received bit image using the number of dots specified by x and y.
• x specifies the number of bytes in the horizontal direction.
• y specifies the number of bytes in the vertical direction.

[Notes]

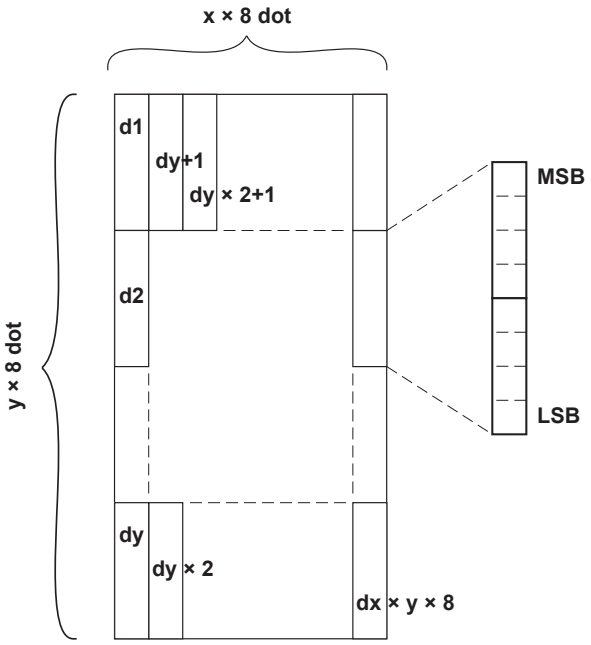
• The number of bytes in horizontal and vertical directions (x and y) are the horizontal and vertical size of the starting image divided by 8.
• If x × y is out of the specified range, this command is disabled.
• The d indicates bit-image data. Data (d) specifies a bit printed to 1 and not printed to 0.
• The received bit image definition is cleared when:
- 0x1B 0x40 is executed.
- 0x1B 0x26 is executed.
- Device is reset or the power is turned off.
• The image is saved in the graphic memory of the device.

[Default]

[Reference]

[Example]

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



0x1D 0x2F

<GS />

Print received bit image

Valid for	P3L

[Format]

Hex	1D	2F	m
ASCII	GS	/	m

[Range]

0x00 ≤ m ≤ 0x03
0x30 ≤ m ≤ 0x33

[Description]

Prints a received bit image using the mode specified by m as follows:

m	MODE	VERTICAL DOT DENSITY	HORIZONTAL DOT DENSITY
		DPI	DPI
0x00, 0x30	Normal	203.2	203.2
0x01, 0x31	Double-width	203.2	101.6
0x02, 0x32	Double-height	101.6	203.2
0x03, 0x33	Quadruple	101.6	101.6

[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 upside down printing mode.
• If the downloaded bit-image to be printed exceeds the printable area, the excess data is not printed.
If the width of the printing area set by 0x1D 0x4C and 0x1D 0x57 is less than the width required by the data sent with the 0x1D 0x2A command; the following will be performed on the line in question (but the printing cannot exceed the maximum printable area)
Step 1: The width of the printing area is extended to the right to accommodate the amount of data.
Step 2: If step 1 does not provide sufficient width for the data, the left margin is reduced to accommodate the data. For each bit of data in normal mode (m = 0x00, 0x30) and double-heigh t (m = 0x02, 0x32), 2 dots in double-widtht: for each bit of data in double-width mode (m = 0x01, 0x31) and quadruple mode (m = 0x03, 0x33), the printer prints two dots.

[Default]

[Reference]

0x1D 0x2A

[Example]

0x1D 0x76

<GS v>

Print raster bit imager

Valid for	P3L

[Format 1]										
	Hex	1D	76	30	m	xL	xH	yL	yH	d1...dk
	ASCII	GS	v	0	m	xL	xH	yL	yH	d1...dk

[Range]

0x00 ≤ m ≤ 0x03, 0x30 ≤ m ≤ 0x33
0x00 ≤ xL ≤ 0xFF
0x00 ≤ H ≤ 0xFF where 1 ≤ (xL + xH x 256) ≤ 128
0x00 ≤ yL ≤ 0xFF
0x00 ≤ yH ≤ 8 where 1 ≤ (yL + yH x 256) ≤ 4095
0x00 ≤ d ≤ 0xFF
k = (xL + xH x 256) x (yL + yH x 256) (k ≠0)

[Description]

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

m	MODE	VERTICAL DOT DENSITY	HORIZONTAL DOT DENSITY
		DPI	DPI
0x00, 0x30	Normal	203.2	203.2
0x01, 0x31	Double-width	203.2	101.6
0x02, 0x32	Double-height	101.6	203.2
0x03, 0x33	Quadruple	101.6	101.6

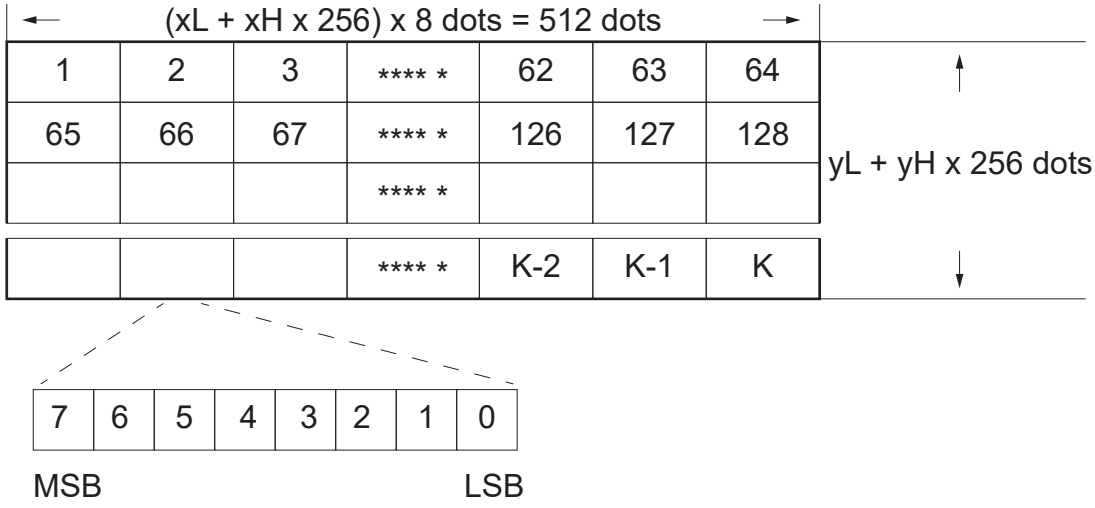
• xL, xH, select the number of data bytes (xL+ xH x 256) in the horizontal direction for the bit image.
• yL, yH, select the number of data bits (yL+ yH x 256) in the vertical direction for the bit image.

[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.
• If the printing area width set by 0x1D 0x4C and 0x1D 0x57 is less than the minimum width, the printing area is extended to the minimum width only on the line in question. The minimum width means 1 dot in normal (m = 0x00, 0x30) and double-height (m = 0x02, 0x32), 2 dots in double-width (m = 0x01, 0x31) and quadruple (m = 0x03, 0x33) modes.
• 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 0x09 (Horizontal Tab), 0x1B 0x26 (Set absolute print position), 0x1B 0x5C (Set relative print position), and 0x1D 0x4C (Set left margin). If the position at which subsequent characters are to be printed is a multiple of 8.
• The 0x1B 0x61 (Select justification) setting is also effective on raster bit images.
• When this command is received during macro definition, the printer ends macro definition, and begins performing this command. The definition of this command should be cleared.
• d indicates the bit-image data. Setting a bit to 1 prints a dot and setting it to 0 does not print a dot.

[Reference]

[Example]


(xL + xH x 256) x 8 dots = 512 dots
1
2
3
**** *
62
63
64
65
66
67
**** *
126
127
128
**** *
yL + yH x 256 dots
**** *
K-2
K-1
K
7
6
5
4
3
2
1
0
MSB
LSB

0x1C 0x70

<FS p>

Print NV bitmap

Valid for	P3L

[Format]

Hex	1C	70
ASCII	FS	p

[Range]

0x01 ≤ n ≤ 0xFF
0x00 ≤ m ≤ 0x03 , 0x30 ≤ m ≤ 0x33

[Description]

Starts or ends macro definition.

m	MODE	VERTICAL DOT DENSITY	HORIZONTAL DOT DENSITY
		DPI	DPI
0x00, 0x30	Normal	203.2	203.2
0x01, 0x31	Double-width	203.2	101.6
0x02, 0x32	Double-height	101.6	203.2
0x03, 0x33	Quadruple	101.6	101.6

- n is the number of the NV bit image (defined using the 0x1C 0x71 command).
- m specifies the bit image mode.

[Notes]

- NV bit image is a bit image defined in non-volatile memory by 0x1C 0x71 and printed by 0x1C 0x70.
- 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 printing area width set by 0x1D 0x4C and 0x1D 0x57 for the NV bit image is less than one vertical line, the following processing is performed only on the line in question. However, in NV bit image mode, one vertical line means 1 dot in normal mode (m = 0x00, 0x30) and in double-height mode (m = 0x02, 0x32), and it means 2 dots in double-width mode (m = 0x01, 0x31) and in quadruple mode (m = 0x03, 0x33).
  Step 1: The printing area width is extended to the right in NV bit image mode up to one line vertically. In this case, printing does not exceed the printable area.
  Step 2: If the printing area width cannot be extended by one line vertically, the left margin is reduced to accommodate one line vertically.
- 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 x 2 of the NV bit image) in double height and quadruple modes, regardless of the line spacing specified by 0x1B 0x32 or 0x1B 0x33.
- 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.

[Default]

[Reference] 0x1B 0x2A, 0x1C 0x71, 0x1D 0x2A, 0x1D 0x76

[Example]

0x1C 0x71

<FS q>

Define NV bit image

Valid for	P3L				
[Format]	Hex	1C	71	n	[xL xH yL yH d1...dk] 1...[xL xH yL yH d1...dk] n
	ASCII	FS	q	n	[xL xH yL yH d1...dk] 1...[xL xH yL yH d1...dk] n

[Range]

0x01 ≤ n ≤ 0xFF
0x00 ≤ xL ≤ 0xFF
0x00 ≤ xH ≤ 0x03 (when 1 ≤ (xL + xH × 256) ≤ 1023
0x00 ≤ yL ≤ 0x01 (when 1 ≤ (yL + yH × 256) ≤ 288
0x00 ≤ d ≤ 0xFF
k = (xL + xH × 256) × (yL + yH × 256) × 8
Total defined data area = 3 MB

[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]

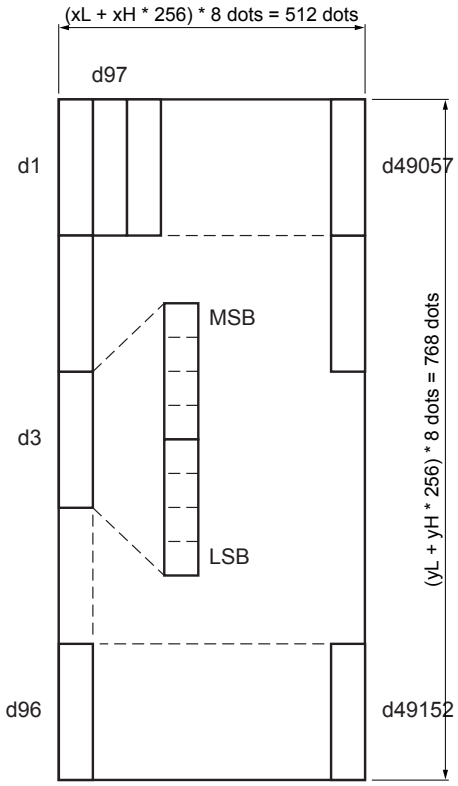
• Frequent write command executions may damage the NV memory. Therefore, it is recommended to write the NV memory 10 times or less a day.
• The printer performs a hardware reset after the procedure to place the image into the NV memory. Therefore, user-defined characters, downloaded bit images, and macros 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. At this time, DIP switch settings are checked again. (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 0x1D 0x76 and printed by 0x1D 0x76.
• 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 0x1C 0x70.
• 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 ≤ x Hx 256) x (yL ≤ yHx256) x 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 x 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.
• When this command is received during macro definition, the printer ends macro definition, and begins performing this command.
• Once an NV bit image is defined, it is not erased by performing 0x1B 0x40, 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 0x1C 0x70 command.

[Reference] 0x1D 0x76

[Example] To make a image or logo of width = 512 dots and height = 768 dots the command sequence to send is:
0x1C 0x71 0x01 0x40 0x00 0x60 0x00 followed by 49152 bytes which define the image as the following drawing:

When xL = 64, xH = 0,
yL = 96, yH = 0



INIT COMMAND

0x1B 0x40 <ESC @>

Initialize device

Valid for	P3L

[Format]

Hex	1B	40
ASCII	ESC	@

[Range]

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

[Notes]
- The data in the receiver buffer is not cleared.
- The macro definitions are not cleared.

[Default]

[Reference]

[Example]

0x1D 0x3A

<GS :>

Start or end of macro definition

Valid for	P3L		
[Format]	Hex	1D	3A
	ASCII	GS	:
[Range]			
[Description]	Starts or ends macro definition.		
[Notes]	• Macro definition starts when this command is received during normal operation. • When 0x1D 0x5E is received during macro definition, the device ends macro definition and clears all definitions. • Macros are not defined when power is turned on to the machine. • Macro content is not cancelled by the 0x1B 0x40 command. Therefore, 0x1B 0x40 may be included in the content of macro definitions. • If the device receives 0x1D 0x3A a second time after previously receiving 0x1D 0x3A, the device remains in macro undefined status. • The contents of the macro can be defined up to 1024 bytes. If the macro definition exceeds 1024 bytes, excess data is not stored.		
[Default]			
[Reference]	0x1D 0x5E		
[Example]			

0x1D 0x5E

<GS ^>

Execute macro

Valid for	P3L

[Format]

Hex	1D	5E	r	t	m
ASCII	GS	^	r	t	m

[Range]

0x00 ≤ r, t ≤ 0xFF
0x00 ≤ m ≤ 0x01

[Description]

Executes a macro.
• r specifies the number of times to execute the macro.
• t specifies the waiting time for executing the macro.
The waiting time is t × 100 ms for each macro execution.
• m specifies macro executing mode:
When the Least Significant Bit (LSB) of m = 0, the macro is executed r times continuously at the interval specified by t.
When the Least Significant Bit (LSB) of m = 1, after waiting for the period specified by t, the LED indicator blinks and the device waits for the FEED button to be pressed. After the button is pressed, the device executes the macro once. The device repeats the operation r times.

[Notes]

• This command has an interval of (t × 100 ms) after a macro is executed by t.
• If this command is received while a macro is being defined, the macro definition is aborted and the definition is cleared.
• If the macro is not defined or if r is 0x00, nothing is executed.
• When the macro is executed by pressing the FEED button (m = 0x01), the paper cannot be fed using the FEED button.

[Default]

[Reference]

0x1D 0x3A

[Example]

0x1B 0x69

<ESC i>

Total cut

Valid for	P3L		
[Format]	Hex	1B	69
	ASCII	ESC	i
[Range]			
[Description]	0x1B 0x6D select a paper cutting mode and then partial cut the paper.		
[Notes]			
[Default]			
[Reference]			
[Example]			

0x1B 0x6D

Partial cut

Valid for	P3L		
[Format]	Hex	1B	6D
	ASCII	ESC	m
[Range]			
[Description]	0x1B 0x6D select a paper cutting mode and then partial cut the paper.		
[Notes]			
[Default]			
[Reference]			
[Example]			

0x1B 0x39 <ESC 9>

Select Chinese code

Valid for	P3L

[Format]

Hex	1B	9	n
ASCII	ESC	39	n

[Range]

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

n	DESCRIPTION
0x00	GBK code
0x01	UTF-8 code
0X03	BIG5 code

[Notes] This version is not support English.

[Default]

[Reference]

[Example]

0x1D 0x56

<GS V>

Select cut mode

Valid for	P3L				
[Format 1]	Hex	1D	56	m	
	ASCII	GS	V	m	
[Format 2]	Hex	1D	56	m	n
	ASCII	GS	V	m	n
[Range]	Format 1	m = 0x00, 0x30			
	Format 2	m = 0x42, 0x00 ≤ n ≤ 0xFF			

[Description] Selects cut mode and executes the cut command based on the value of m as follows:

m	FUNCTION
0x00, 0x30	Partial cut
0x42	Form feed (cut position + [n × vertical motion unit]) and partial cut

[Notes] Format 1, Format 2

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

Format 1

- Only the partial cut is available; there is no full cut.

Format 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 x 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 0x1D 0x56 + 0.125 mm] is applied.

[Default]

[Reference] 0x1D 0x28 0x48

[Example]

0x1B 0x63 0x35 <ESC c 5>

Enable or disable keys panel

Valid for	P3L				
[Format]	Hex	1B	63	35	n
	ASCII	ESC	c	5	n
[Range]	0x00 ≤ n ≤ 0xFF				
[Description]	Enables or disables the keys panel, based on the value of n - when the Least Significant Bit (LSB) of n is 0, the keys panel is enabled. - when the Least Significant Bit (LSB) of n is 1, the keys panel is disabled.				
[Notes]	• Only the Least Significant Bit (LSB) of n is effective. • When the keys panel is disabled, the keys may only be used after the device has been reset.				
[Default]	n = 0x00				
[Reference]					
[Example]					

0x1B 0x42 <ESC B>

Set beep prompt

Valid for	P3L				
[Format]	Hex	1B	42	n	t
	ASCII	ESC	B	n	t
[Range]	0x00 ≤ n ≤ 0x09 0x00 ≤ t ≤ 0x09				
[Description]	Set printer beep tone. • n specifies the number of the beep tone. • t specifies the time of beep tone.				
[Notes]					
[Reference]					
[Example]					

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