Format

```
1B 40   66  31  30  00 3033 31  3131
```

ASCII	ESC	(	B	n_L	n_H	k	m	s	v_1	v_2	c	BarCodeData
Hex	1B	28	42	n_L	n_H	k	m	s	v_1	v_2	c	BarCodeData
Decimal	27	40	66	n_L	n_H	k	m	s	v_1	v_2	c	BarCodeData

Parameter range

$0 \le n_L \le 255$
$0 \le n_H \le 127$
$0 \le k \le 7$
$2 \le m \le 5$
$-3 \le s \le 3$
$0 \le v_1 \le 255$
$0 \le v_2 \le 127$
$0 \le c \le 255$

Function

- Prints bar codes.
- Parameters are used as described below:

n_L, n_H Total number of data bytes to follow, determined by the following equation:

(number of data bytes) = 6 bytes + BarCodeData bytes = $((n_H \times 256) + n_L)$

(where 6 bytes are k, m, s, v_1, v_2, and c)

$$n_H = \text{INT}\frac{(\text{number of data bytes})}{256}$$

$$n_L = \text{MOD}\frac{(\text{number of data bytes})}{256}$$

k Bar code type

k (Hex)	Bar code type
00	EAN-13
01	EAN-8
02	Interleaved 2 of 5
03	UPC-A
04	UPC-E
05	Code 39
06	Code 128
07	POSTNET

m Module width

m	24-pin printer (unit 1/180 inch)	9-pin printer (unit 1/120 inch)
02 (default)	2 dots	2 dots
03	3 dots	3 dots
04	4 dots	4 dots
05	5 dots	5 dots

s Space adjustment value

24-pin printer	$-3 \leq s \leq 3$ (unit 1/360 inch)
9-pin printer	$-3 \leq s \leq 3$ (unit 1/240 inch)

v_1, v_2 Bar length

24-pin printer	bar length = $v_1 + v_2 \times 256$ (unit 1/180 inch)
9-pin printer	bar length = $v_1 + v_2 \times 256$ (unit 1/72 inch)

The v_1 and v_2 values are ignored when POSTNET is selected.

Long bar length of POSTNET is always 0.125 inch.

Short bar length of POSTNET is always 0.050 inch.

c Control flag

c	Control flag
bit 0	Check digit 0: A check digit is not added by the printer. 1: A check digit is added by the printer.
bit 1	Human readable character 0: The human readable characters are added by the printer. 1: The human readable characters are not added by the printer.
bit 2	Position of flag character (for EAN-13 and UPC-A only) 0: Center 1: Under
bit 3	(reserved)
bit 4	(reserved)
bit 5	(reserved)
bit 6	(reserved)
bit 7	(reserved)

BarCodeData Coresonds to the bar code symbology.

The data number of each bar code type is constant.

The bar code is not printed if the number of bar code characters are incorrect.

Bar code type	Number of valid characters 1 (HEX)	Number of valid characters 2 (HEX)
EAN-13	0D	0C
EAN-8	08	07
Interleaved 2 of 5	02 to FF	02 to FF
UPC-A	0C	0B
UPC-E	0C or 8	0B or 7
Code 39	01 to FF	01 to FF
Code 128	02 to FF	02 to FF
POSTNET	06 or 0A or 0C	05 or 09 or 0B

Number of valid characters 1: control flag c bit 0 = 0

Number of valid characters 2: control flag c bit 0 = 1

The valid data of each bar code type are following.

If an invalid data is included in the BarCodeData string, the bar code is not printed.

Bar code type	Valid range of BarCodeData
EAN-13	0-9 (30H-39H)
EAN-8	0-9 (30H-39H)
Interleaved 2 of 5	0-9 (30H-39H)
UPC-A	0-9 (30H-39H)
UPC-E	0-9 (30H-39H)
Code 39	0-9 (30H-39H), (41H-5AH) (20H, 24H, 25H, 2BH, 2DH, 2EH, 2FH)
Code 128	Code Set A, Set B, Set C
POSTNET	0-9 (30H-39H)

Notes

- Bar code printing is always performed unidirectionally.
- The bar code is not printed when part of the bar code is out of the right margin.
- Bar code and text data are mixed in a line.
- A kind of Code 128 character sets (A, B or C) is identified by the first data of Code 128. The first data must be a hexadecimal 41 (A), 42 (B) and 43 (C).
- When Code 128 Character Set C and Interleaved 2 of 5 is selected and the number of characters are ODD, “0” is added to the data string.

Printers featuring this command

DLQ-3000 (’96 ~), LQ-670, LQ-2070, LQ-2170

Model-dependent variations

None

Related topics

ESC <, ESC Q, ESC U, Printing Bar Codes