Gprinter

PROGRAM MANUAL

Direct thermal barcode printer & Thermal transfer label printer

---

GP-3120TN
GP-3120TL
GP-3150TIN
GP-1524D
GP-1625D
GP-1225D
GP-1124D
GP-9035T
GP-9034T
GP-9026T
GP-9025T
GP-1125T
GP-1124T
GP-1225T

2016.12.10

Table of contents

Document convention

System setup commands

Label Formatting Commands

Status Polling Commands (RS232)

File Management Commands

BASIC Commands and Functions

Device Reconfiguration Commands

Printer Global Variables

Document Conventions

This manual uses the following typographic conventions.

Convention	Description
[Expression list]	Items inside square brackets are optional, expression maximum length 2*1024 bytes;
<ESC>	ESCAPE (ASCII 27), control code of status polling command, which returns the printer status immediately, no matter the printer is standby status or busy.
~	(ASCII 126), control code of status polling command, which returns the printer status only when the printer is ready.
Note: 200 DPI: 1 mm = 8 dots	***Font in bold and italic type is used for note.***

```
DOWNLOAD “TEST.BAS”
SET COUNTER @1 1
@1=”0001”
TEXT 10,10,”3”,0,1,1,@1
PRINT 3,2
EOP
```

When displayed content is program, use Arial 10.5 sized font.

System setup commands

● SIZE

Description

This command defines the label width and length.

Syntax

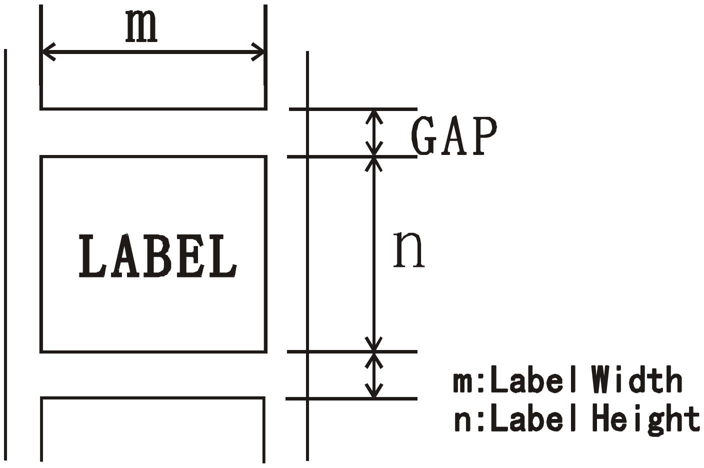
(1) English system (inch)
SIZE m, n
(2) Metric system (mm)
SIZE m mm, n mm

Parameter	**Description**
m	Label width (inch or mm)
n	Label length (inch or mm)

Note:
200 DPI: 1 mm = 8 dots
300DPI: 1mm=12dots
For metric system, there must be a space between parameter m and "mm".

Example

(1) English system (inch)
SIZE 3.5, 3.00
(2) Metric system (mm)
SIZE 100 mm, 100 mm



See Also

GAP, BLINE

● GAP

Description

Define the gap distance between two labels

Syntax

(1). English system (inch)
GAP m, n
(2) Metric system (mm)
GAP m mm, n mm

Parameter	Description
m	The gap distance between two labels(inch or mm) 0 ≤ m ≤ 1 (inch), 0 ≤ m ≤ 25.4 (mm)
n	The offset distance of the gap(inch or mm) [ ]n ≤ label length (inch or mm)
0,0	Continuous label.

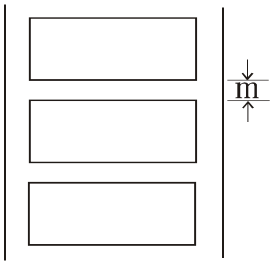
Note: For metric system, there must be a space between parameter m and mm.
When the sensor type is changed from "Black Mark" to "GAP", please send the "GAP" command to the printer first.

Eg: In DOS mode,
C:\>copy con lpt1 <Enter>
GAP 2 mm,0 <Enter>
<Ctrl>+<Z> <Enter>

Example

Normal gap

(1). English system (inch)
GAP 0.12,0
(2) Metric system (mm)
GAP 3 mm,0
(3). Continuous label
GAP 0,0



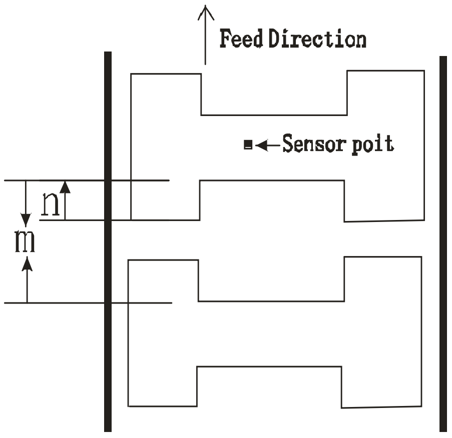
Special gap

(1). English system (inch)

GAP 0.30, 0.10

(2). Metric system (mm)

GAP 7.62 mm, 2.54 mm



See Also

SIZE,BLINE

● BLINE

Description

Define black mark distance and extra label feeding length after printing

Syntax

(1) English system (inch)
    BLINE m, n
(2) Metric system (mm)
    BLINE m mm, n mm

Parameter	Description
m	The distance between two black marks 0.1 ≤ m ≤ 1 (inch), 2.54 ≤ m ≤ 25.4 (mm)
n	Extra label feeding length (inch or mm) 0 ≤n ≤label length (inch or mm)
0,0	Continuous label.

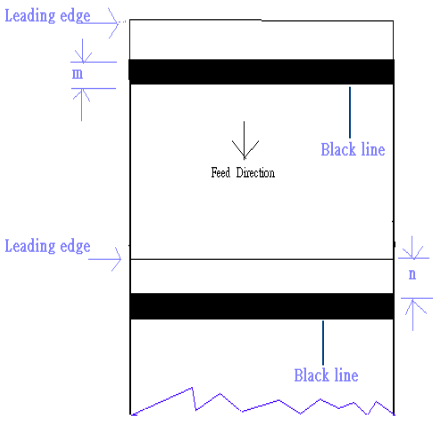
Note: For metric system, there must be a space between parameter m and mm. When the sensor type is changed from "GAP" to "Black Mark", please send the "BLINE" command to the printer first.

Eg: In DOS mode,

```
C:\>COPY CON LPT1 <Enter>
BLINE 2 mm,0<Enter>
<Ctrl>+<Z><Enter>
```

Example

(1) English system (inch)
    BLINE 0.20,0.50
(2) Metric system (mm)
    BLINE 5.08 mm,12.7 mm



See Also

SIZE, GAP

- **OFFSET**

Description

This command defines the selective, extra label feeding length, especially when you use peeler or cutter function, this could be used to adjust the label stop position, the extra feeding length or less feeding length could be backward pulled to adjust when the second label is printed. This method is applied for peel-off mode and cutter mode.

Syntax

(1) English system (inch)

```
OFFSET m
```

(2) Metric system (mm)

```
OFFSET m mm
```

Parameter	**Description**
m	The offset distance (inch or mm) -1≤ m ≤1(inch)

CAUTION: Improper offset value may cause paper jam.

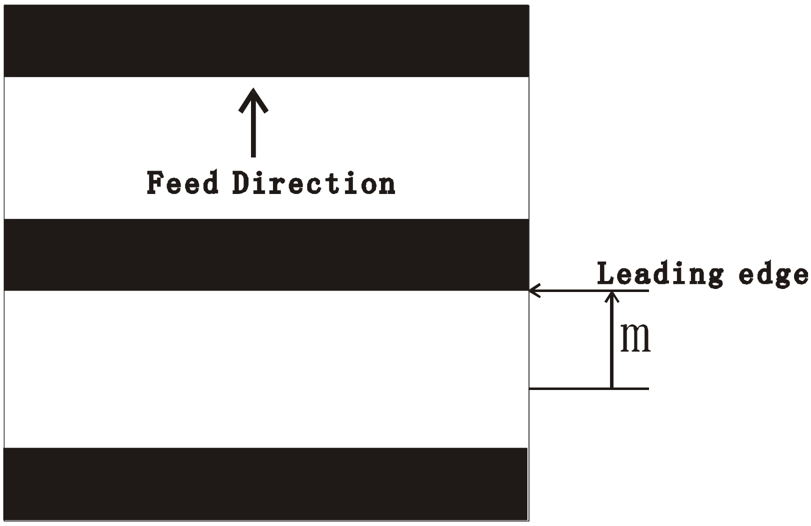
Example

(1) English system (inch)

```
OFFSET 0.5
```

(2) Metric system (mm)

```
OFFSET 12.7 mm
```



See Also

SIZE, GAP, SET PEEL

- ## SPEED

Description

This command defines the print speed.

Syntax

SPEED n

Parameter	**Description**
n	printing speed in inch per second

N	2	3	4	5	6	7	8
3120TN	o	o	o	o			
3120TL	o	o	o	o			
3150TIN	o	o	o	o	o		
1524D	o	o	o	o	o	o	o
9035T	o	o	o	o			
9025T	o	o	o	o			
9026T	o	o	o	o			
1124T	o	o	o	o			
1125T	o	o	o	o			
1235T	o	o	o	o			

Example

SPEED 4

See Also

DENSITY

- ## DENSITY

Description

This command designates the level of darkness of printing.

Syntax

DENSITY n

Parameter	**Description**
n	0~15 0, specifies the lightest level 15, specifies the darkest level

Example

DENSITY 7

See Also

SPEED

DIRECTION

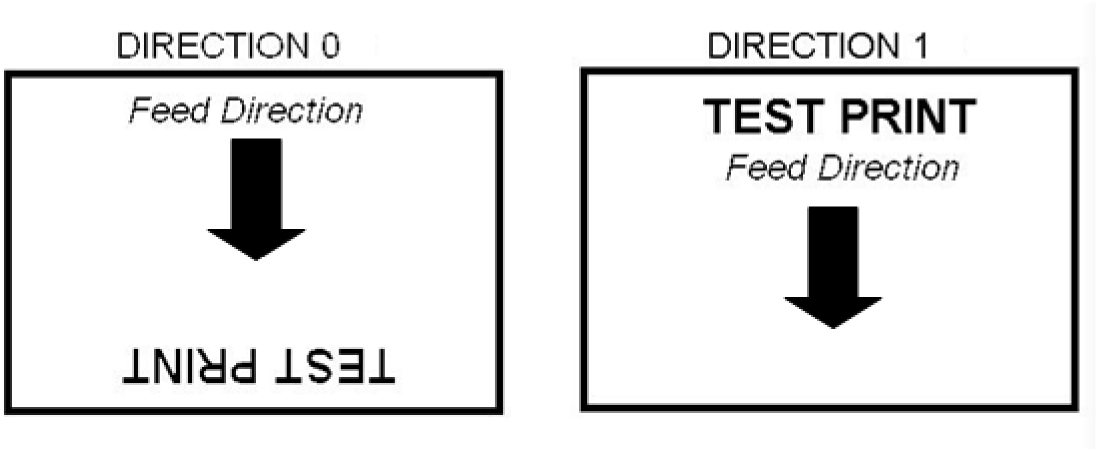
Description

This command defines the printout direction, and this will be memorized in EEPROM.

Syntax

DIRECTION n

Parameter	Description
n	0 or 1. Please refer to the illustrations below:



Example

DIRECTION 0[,0]

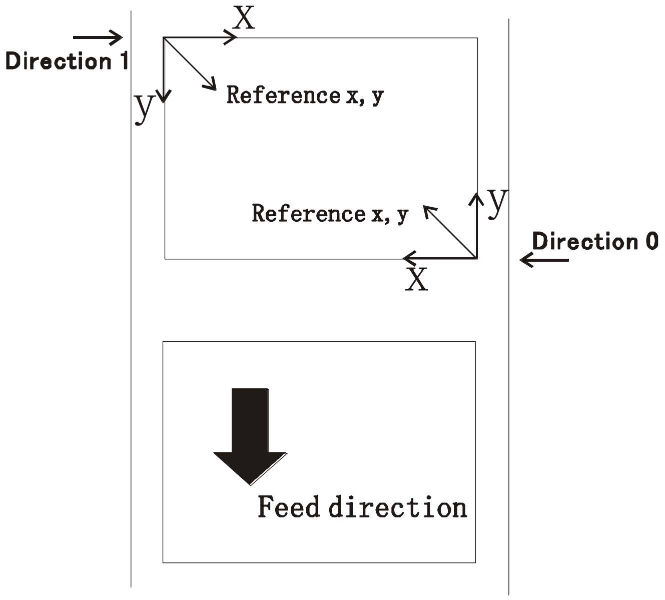
See Also

REFERENCE

● REFERENCE

Description

This command defines the reference point of the label. The reference (origin) point varies with the print direction, as shown:



Syntax

REFERENCE x, y

Parameter	**Description**
x	Horizontal coordinate, with “dot” as the unit.
y	Vertical coordinate, with “dot” as the unit.

Note: ***200 DPI: 1 mm = 8 dots***
300DPI: 1 mm = 12 dots

Example

REFERENCE 10,10

See Also

DIRECTION

● SHIFT

Description

This command can be used to fine-tune the entire label up or down from its current position. The position relates to the top edge of the label. A negative value moves the entire label away from the top of the label; a positive value moves the entire label to the top of label.

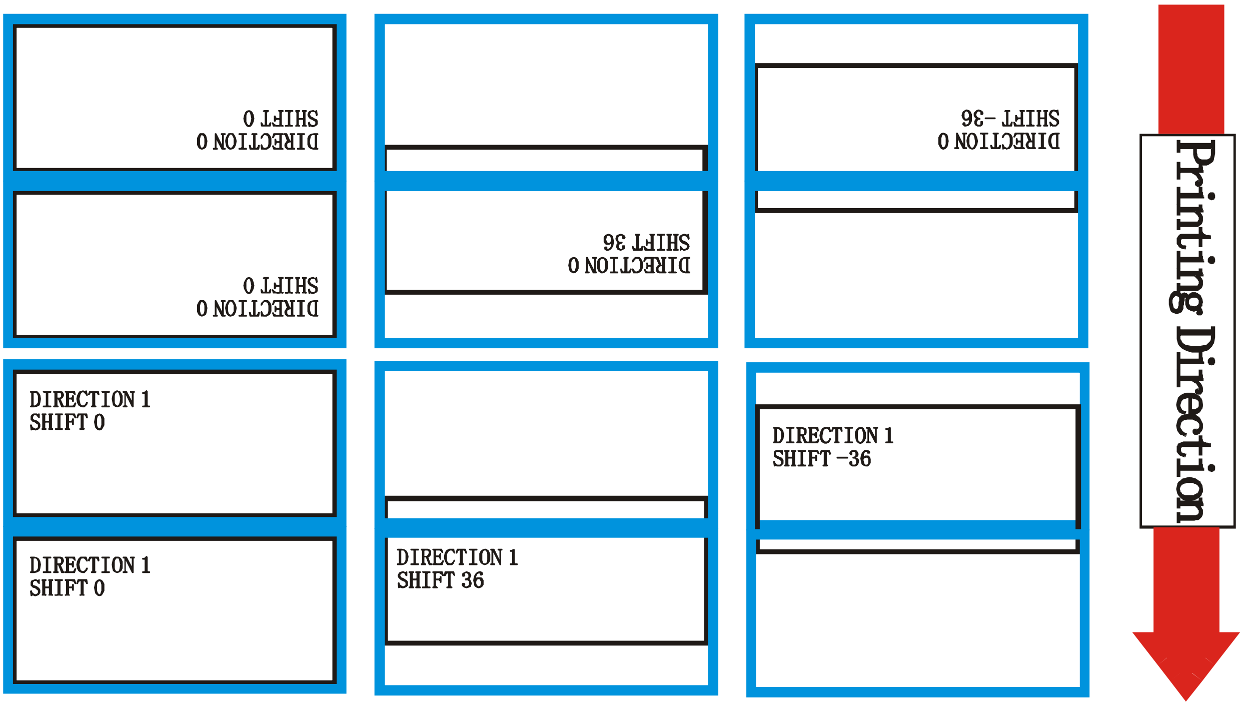
Syntax

SHIFT n

Parameter	Description
n	The maximum value is 1 inch. For 203 dpi printers, the range is from –203 to 203; The unit is dot.

Example

```
SIZE 4,2.5
GAP 2 mm,0
DIRECTION 0
SHIFT 36
OFFSET 0
CLS
TEXT 400,200,"3",0,1,1,"DIRECTION 0"
TEXT 400,250,”3”,0,1,1,"SHIFT 36"
BOX 10,0,780,490,8
PRINT 3,1
```



See Also

OFFSET, REFERENCE

- ## CODE PAGE

Description

This command defines the code page of international character set.

Syntax

CODEPAGE n

Parameter	Description
n	name or number of code page, which can be divided into 8-bit code page further.

8-bit code page number

437: United States
850: Multilingual
852: Slavic
860: Portuguese
863: Canadian/French
865: Nordic
857: Turkish

Windows code page

1250: Central Europe
1252: Latin I
1253: Greek
1254: Turkish

Note: 8-bit code page is determined by the communication parameter of DATA LENGTH

Example

CODEPAGE 437

- ## CLS

Description

This command clears the image buffer.

Syntax

CLS

Parameter	Description
None	N/A

Note: This command must be placed after SIZE command.

Example

CLS

See Also

SIZE, GAP, BLINE

FEED

Description

This command feeds label with the specified length.
The length is specified by dot.

Syntax

FEED n

Parameter	Description
n	unit: dot 1 ≤ n ≤ 9999

Example

FEED 40

Note: ***203 DPI: 1 mm = 8 dots***

300DPI: 1mm = 12 dots

See Also

BACKFEED, SIZE, GAP, BLINE, HOME, FORMFEED

BACKFEED & BACKUP

Description

To back feed label with the specified length. The length is specified by dot.

Syntax

BACKUP n
BACKFEED n

Parameter	Description
n	unit: dot 1 ≤ n ≤ 9999

Example

BACKUP 40
BACKFEED 40

CAUTION: Improper back feed value may cause paper jam or ribbon wrinkle.

Note: ***203 DPI: 1 mm = 8 dots***

300 DPI: 1mm = 12 dots

See Also

FEED, SIZE, GAP, HOME, FORMFEED

- ## FORM FEED

Description

This command feeds label to the beginning of next label.

Syntax

```
FORMFEED
```

Parameter	**Description**
None	N/A

Example

```
SIZE 4,2.5
GAP 0 mm,0
SPEED 4
DENSITY 7
DIRECTION 0
OFFSET 0.00
REFERENCE 0,0
SET PEEL OFF
SET COUNTER @0 +1
@0="000001"
FORMFEED
CLS
BOX 1,1,360,65,12
TEXT 25,25,"3",0,1,1,"FORMFEED COMMAND TEST"
TEXT 25,80,"3",0,1,1,@0
PRINT 3,1
```

See Also

FEED, SIZE, GAP, , HOME, BACKFEED

HOME

Description

It is not expected the first label will be printed on the right position when the printer power is turned on. This command will feed label to the beginning of next label .The size and gap of the label should be setup in advance.

Syntax

```
HOME
```

Parameter	**Description**
None	N/A

Example

```
SIZE 4,2.5
GAP 2 mm,0
SPEED 4
DENSITY 7
DIRECTION 0
OFFSET 0.00
REFERENCE 0,0
SET PEEL OFF
SET COUNTER @0 +1
@0="000001"
HOME
CLS
BOX 1,1,360,65,12
TEXT 25,25,"3",0,1,1,"HOME COMMAND TEST"
TEXT 25,80,"3",0,1,1,@0
PRINT 3,1
```

See Also

FEED, SIZE, GAP, BLINE, FORMFEED

PRINT

Description

This command prints the label format stored in the image buffer.

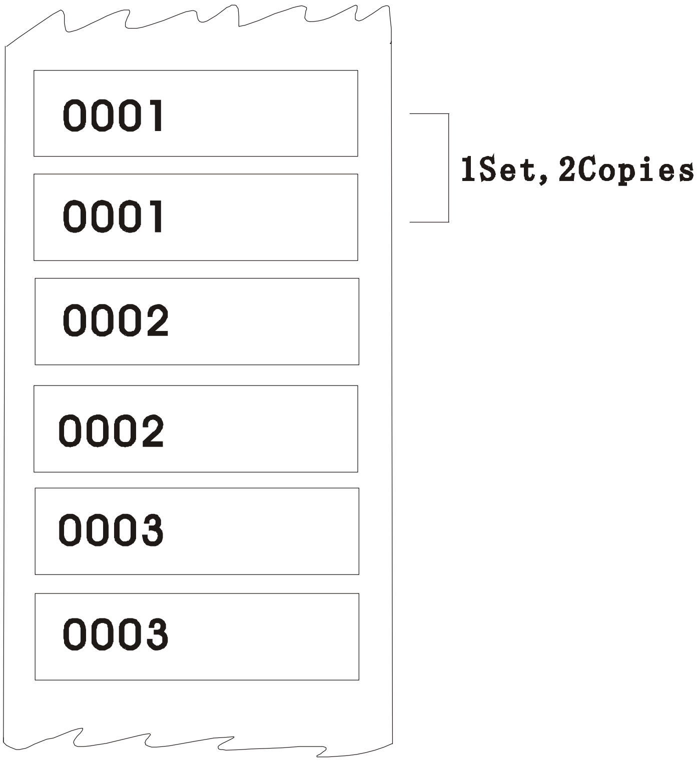
Syntax

PRINT m [,n]

Parameter	Description
m	Specifies how many sets of labels will be printed. 1 ≤ m ≤ 999999999 If m=-1, printer will print the last label content for n copies.
n	Specifies how many copies should be printed for each set of label. 1 ≤ n ≤ 999999999

Example

```
SIZE 60 mm, 20 mm
SET COUNTER @1 1
@1=”0001”
CLS
TEXT 10,10,”3”,0,1,1,@1
PRINT 3,2
PRINT –1,2
```



See Also

SET COUNTER, INPUT, DOWNLOAD

SOUND

Description

This command is used to control the sound frequency of the beeper. There are 10 levels of sounds. The timing control the sound can be set by the “interval” parameter.

Syntax

```
SOUND level,interval
```

Parameter	**Description**
level	Sound level: 0~9
interval	Sound interval: 1~4095

Example

```
SOUND 5,200
SOUND 3,200
SOUND 3,200
SOUND 4,200
SOUND 2,200
SOUND 2,200
SOUND 1,200
SOUND 2,200
SOUND 3,200
SOUND 4,200
SOUND 5,200
```

LIMITFEED

Description

When feeding labels, if the gap sensor is not set to a suitable sensitivity, the printer will not be able to locate the correct position of the gap. This command is used stop label feeding and make the red LED flash if the printer does not locate gap after feeding the length of one label plus one preset value.

Syntax

LIMITFEED n (inch, the English system)
LIMITFEED n mm (mm, the metric system)

Parameter	Description
n	inch or mm

Remark

The setting will remain resident in memory.
The default value is 10 inches when printer initializes.
For metric system, there must be a space between parameter n and mm.

SELFTEST

Description

At this command, the printer will print out the printer information on the label.

Syntax

SELFTEST

Example

```
SELFTEST
```

Label Formatting Commands

1. BAR

Description

This command is used to draw a line or a bar on the label format.

Syntax

```
BAR x, y, width, height
```

Parameter	Description
x	The upper left corner x-coordinate in dot
y	The upper left corner y-coordinate in dot
width	The width of bar in dot
height	The height of bar in dot

Note: ***203 DPI: 1 mm = 8 dots***

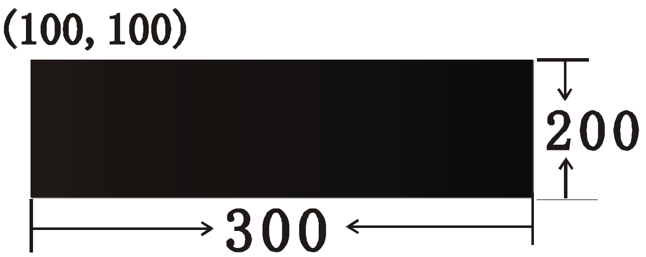
300 DPI: 1 mm = 12 dots

Recommended max. bar height is 12mm at 3" width. Bar height over than 12 mm may damage the power supply and affect the print quality.

Max. print ratio is different for each printer model. Desktop and industrial printer print ratio is limited to 20% and 30% respectively.

Example

```
SIZE 4,2.5
GAP 0,0
SPEED 6
DENSITY 8
DIRECTION 0
CLS
BAR 100, 100, 300, 200
PRINT 1,1
```



See Also

BOX

2. BARCODE

Description

This command is used to print 1D barcodes on label form.
The available bar codes are listed below:

- Code 128 (Automatically switch character set)
- Code 128M (Manually switch character set)
- EAN 128 (Automatically switch character set)
- Interleaved 2 of 5
- Interleaved 2 of 5 with check digit
- Code 39 standard
- Code 39 full ASCII
- Code 39 full ASCII with check digit
- Code 93
- EAN 13
- EAN 13 with 2 digits add-on
- EAN 13 with 5 digits add-on
- EAN 8
- EAN 8 with 2 digits add-on
- EAN 8 with 5 digits add-on
- Codabar
- Postnet
- UPC-A
- UPC-A with 2 digits add-on
- UPC-A with 5 digits add-on
- UPC-E
- UPC-E with 2 digits add-on
- UPC-E with 5 digits add-on
- MSI
- PLESSEY
- China POST
- ITF14
- EAN14

Syntax

BARCODE X, Y, ”code type”, height, human readable, rotation, narrow, wide, “code”

Parameter	**Description**
x	Specify the x-coordinate of the bar code on label
y	Specify the y-coordinate of the bar code on label
code type	
128	Code 128, switching code subset A, B, C automatically
128M	Code 128, switching code subset A, B, C manually.

Control code	A	B	C
096	FNC3	FNC3	NONE
097	FNC2	FNC2	NONE
098	SHIFT	SHIFT	NONE
099	CODE C	CODE C	NONE
100	CODE B	FNC4	CODE B
101	FNC4	CODE A	CODE A
102	FNC1	FNC1	FNC1
103	Start (CODE A)		
104	Start (CODE B)		
105	Start (CODE C)		

Use “!” as a starting character for the control code followed by three control codes.

If the start subset is not set, the default starting subset is B.

➢ EAN128	Code 128, switching code subset A, B, C automatically
➢ 25	Interleaved 2 of 5
➢ 25C	Interleaved 2 of 5 with check digits
➢ 39	Auto switch full ASCII and standard code 39 for ***PLUS*** models.
➢ 39C	Code 39 full ASCII with check digit Code 39 standard with check digit Auto switch full ASCII and standard code 39 for ***PLUS*** models.
➢ 39S	Code 39 standard
➢ 93	Code 93
➢ EAN 13	EAN 13
➢ EAN 13 + 2	EAN 13 with 2 digits add-on
➢ EAN 13 + 5	EAN 13 with 5 digits add-on
➢ EAN 8	EAN 8
➢ EAN 8 + 2	EAN 8 with 2 digits add-on
➢ EAN 8 + 5	EAN 8 with 5 digits add-on
➢ CODA	Codabar
➢ POST	Postnet
➢ UPCA	UPC-A
➢ UPCA + 2	UPC-A with 2 digits add-on
➢ UPCA + 5	UPC-A with 5 digits add-on
➢ UPCE	UPC-E
➢ UPCE + 2	UPC-E with 2 digits add-on
➢ UPCE + 5	UPC-E with 5 digits add-on
➢ CPOST	China post code
➢ MSI	MSI code
➢ MSIC	
➢ PLESSEY	PLESSEY code
➢ ITF 14	ITF 14 code
➢ EAN 14	EAN 14 code
➢ height	bar code height expressed by dot
➢ human readable	0: human not readable 1: human readable

- rotation — Rotate bar code clockwise in degrees

0	non rotation
90	rotate 90 degrees clockwise
180	rotate 180 degrees clockwise
270	rotate 270 degrees clockwise
narrow	width of narrow element in dot
wide	width of wide element in dot

	narrow : wide 1：1	narrow : wide 1：2	narrow : wide 1：3	narrow : wide 2：5	narrow : wide 3：7
128	10x	N/A	N/A	N/A	N/A
EAN128	10x	N/A	N/A	N/A	N/A
25	N/A	10x	10x	5x	N/A
25C	N/A	10x	10x	5x	N/A
39	N/A	10x	10x	5x	N/A
39C	N/A	10x	10x	5x	N/A
93	N/A	N/A	10x	N/A	N/A
EAN13	8x	N/A	N/A	N/A	N/A
EAN13+2	8x	N/A	N/A	N/A	N/A
EAN13+5	8x	N/A	N/A	N/A	N/A
EAN8	8x	N/A	N/A	N/A	N/A
EAN8+2	8x	N/A	N/A	N/A	N/A
EAN8+5	8x	N/A	N/A	N/A	N/A
CODA	N/A	10x	10x	5x	N/A
POST	1x	N/A	N/A	N/A	N/A
UPCA	8x	N/A	N/A	N/A	N/A
UPCA+2	8x	N/A	N/A	N/A	N/A
UPCA+5	8x	N/A	N/A	N/A	N/A
UPCE	8x	N/A	N/A	N/A	N/A
UPCE+2	8x	N/A	N/A	N/A	N/A
UPCE+5	8x	N/A	N/A	N/A	N/A
CPOST	N/A	N/A	N/A	N/A	1x
MSI	N/A	N/A	10x	N/A	N/A
MSIC	N/A	N/A	10x	N/A	N/A
PLESSY	N/A	N/A	10x	N/A	N/A
ITF14	N/A	10x	10x	5x	N/A
EAN14	N/A	N/A	N/A	5x	N/A

Code number the maximum number of digits of bar code content

Barcode type	Maximum bar Code length	Barcode type	Maximum bar Code length
128	—	POST	5,9,11
EAN128	—	UPCA	11
25	—	UPCA + 2	13
25C	__	UPCA + 5	16
39	—	UPCE	6
39C	—	UPCE +2	8
93	—	UPCE + 5	11
EAN13	12	CPOST	_
EAN13+2	14	MSI	_
EAN13+5	17	MSIC	_
EAN8	7	PLESSY	_
EAN8+2	9	ITF14	13
EAN8+5	12	EAN14	13
CODA	_		

Example

```
BARCODE 100,100,”39”,96,1,0,2,4,”1000”
BARCODE 10,10,”128M”,48,1,0,2,2,”!104!096ABCD!101EFGH”
```

(The above example of code 128M encoded with CODE B start character. The next character will be the code 128 function character FNC3 which is then followed by the ABCD characters and EFGH characters encoded as CODE A subset

3. BITMAP

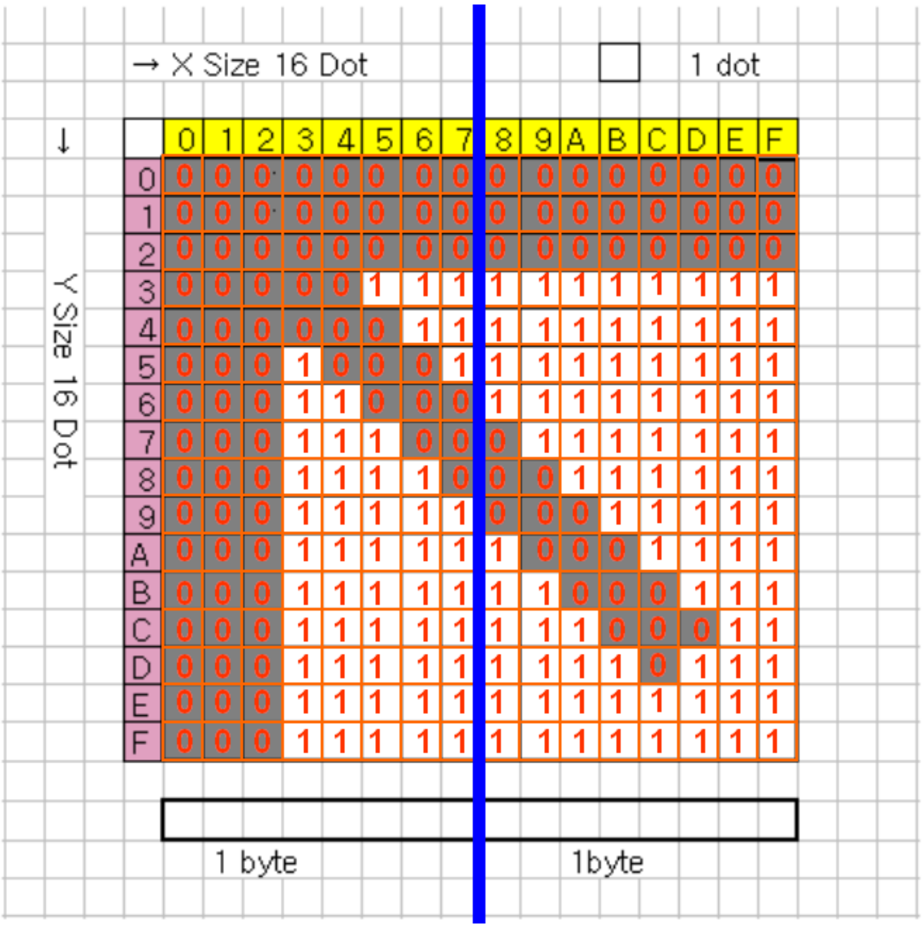
Description

This command is used to draw bitmap images (Not BMP graphic file).

Syntax

BITMAP X, Y, width, height, mode, bitmap data…

Parameter	Description
x	Specify the x-coordinate of the bitmap image
y	Specify the y-coordinate of the bitmap image
width	The width of the image in bytes
height	The height of the image in dot
mode	Graphic mode is listed below:
0	OVERWRITE
1	OR
2	XOR
bitmap data	The bitmap data



	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
4	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
5	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1
6	0	0	0	1	1	0	0	0	1	1	1	1	1	1	1	1
7	0	0	0	1	1	1	0	0	0	1	1	1	1	1	1	1
8	0	0	0	1	1	1	1	0	0	0	1	1	1	1	1	1
9	0	0	0	1	1	1	1	1	0	0	0	1	1	1	1	1
A	0	0	0	1	1	1	1	1	1	0	0	0	1	1	1	1
B	0	0	0	1	1	1	1	1	1	1	0	0	0	1	1	1
C	0	0	0	1	1	1	1	1	1	1	1	0	0	0	1	1
D	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1
E	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
F	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1

ROW (Y- axis)	L-Byte		R-Byte	
	Binary	Hexadecimal	Binary	Hexadecimal
0	00000000	00	00000000	00
1	00000000	00	00000000	00
2	00000000	00	00000000	00
3	00000111	07	11111111	FF
4	00000011	03	11111111	FF
5	00010001	11	11111111	FF
6	00011000	18	11111111	FF
7	00011100	1C	01111111	7F
8	00011110	1E	00111111	3F
9	00011111	1F	00011111	1F
A	00011111	1F	10001111	8F
B	00011111	1F	11000111	C7
C	00011111	1F	11100011	E3
D	00011111	1F	11110111	F7
E	00011111	1F	11111111	FF
F	00011111	1F	11111111	FF

Example:

```
SIZE 4,2
GAP 0,0
CLS
BITMAP 200,200,2,16,0,      □ ————————————————□ □ □  -?????□ □
PRINT 1,1
```

Hexadecimal	ASCII
53 49 5A 45 20 34 2C 32 0D 0A 47 41 50 20 30 2C 30 0D 0A 43 4C 53 0D 0A 42 49 54 4D 41 50 20 32 30 30 2C 32 30 30 2C 32 2C 31 36 2C 30 2C 00 00 00 00 00 00 07 FF 03 FF 11 FF 18 FF 1C 7F 1E 3F 1F 1F 1F 8F 1F C7 1F E3 1F E7 1F FF 1F FF 0D 0A 50 52 49 4E 54 20 31 2C 31 0D 0A	SIZE 4,2 GAP 0,0 CLS BITMAP 200,200,2,16,0 , ————————————————□ □ □ -?- ????□ □ PRINT 1,1

See Also

PUTBMP, PUTPCX

4. BOX

Description

This command is used to draw rectangles on the label.

Syntax

```
BOX X_start, Y_start, X_end, Y_end, line thickness
```

Parameter	**Description**
X_start	Specify x-coordinate of upper left corner in dot
Y_start	Specify y-coordinate of upper left corner in dot
X_end	Specify x-coordinate of lower right corner in dot
Y_end	Specify y-coordinate of lower right corner in dot
line thickness	Line thickness of the box in dot

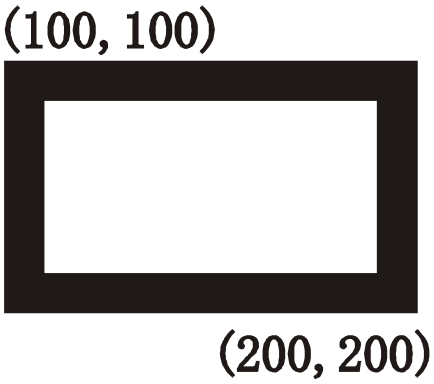
Note: ***203 DPI: 1 mm = 8 dots***

300 DPI: 1 mm = 12 dots

Recommended max. thickness of box is 12mm at 3" width. Thickness of box that is larger than 12 mm may damage the power supply and affect the print quality.
Max. print ratio is different for each printer model. Desktop and industrial printer print ratio is limited to 20% and 30% respectively.

Example

```
SIZE 4,2.5
GAP 0,0
SPEED 6
DENSITY 8
DIRECTION 0
CLS
BOX 100,100,200,200,5
PRINT 1,1
```



See Also

BAR

5. ERASE

Description

This command is used to clear a specified region in image buffer.

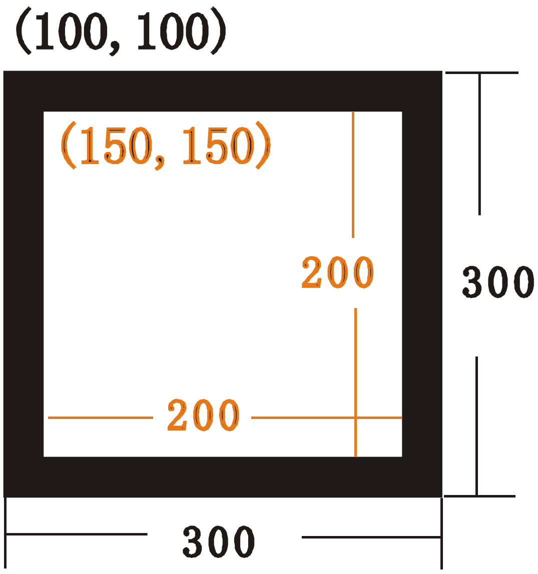
Syntax

ERASE X_start, Y_start, X_width, Y_height

Parameter	Description
X_start	The x-coordinate of the starting point in dot
Y_start	The y-coordinate of the starting point in dot
X_width	The region width in x-axis direction in dot
Y_height	The region height in y-axis direction in dot

Example

```
SIZE 4,2.5
GAP 0,0
SPEED 6
DENSITY 8
DIRECTION 0
CLS
BAR 100, 100, 300, 300
ERASE 150,150,200,200
PRINT 1,1
```



See Also

CLS

6. PUTBMP

Description

This command is used to print BMP format image.

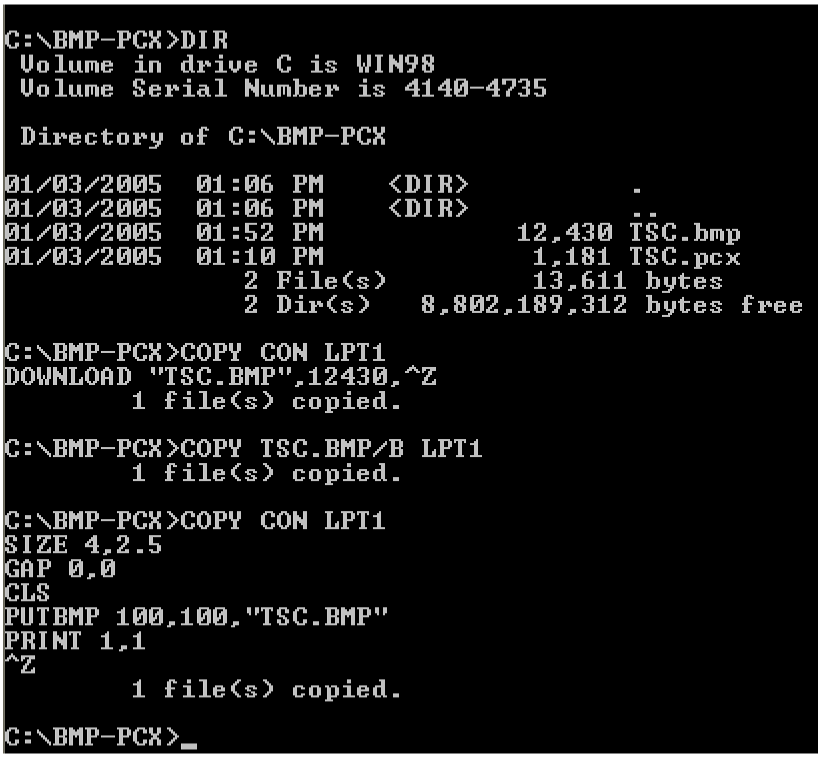
Syntax

PUTBMP X, Y, ”filename”

Parameter	**Description**
x	The x-coordinate of the BMP format image
y	The y-coordinate of the BMP format image
filename	The downloaded BMP filename.

Note: Suggest to use only black and white color BMP file.

Example



```
C:\BMP-PCX>DIR
 Volume in drive C is WIN98
 Volume Serial Number is 4140-4735

 Directory of C:\BMP-PCX

01/03/2005  01:06 PM    <DIR>          .
01/03/2005  01:06 PM    <DIR>          ..
01/03/2005  01:52 PM            12,430 TSC.bmp
01/03/2005  01:10 PM             1,181 TSC.pcx
               2 File(s)         13,611 bytes
               2 Dir(s)   8,802,189,312 bytes free

C:\BMP-PCX>COPY CON LPT1
DOWNLOAD "TSC.BMP",12430,^Z
        1 file(s) copied.

C:\BMP-PCX>COPY TSC.BMP/B LPT1
        1 file(s) copied.

C:\BMP-PCX>COPY CON LPT1
SIZE 4,2.5
GAP 0,0
CLS
PUTBMP 100,100,"TSC.BMP"
PRINT 1,1
^Z
        1 file(s) copied.

C:\BMP-PCX>_
```

See Also

DOWNLOAD, BITMAP, PUTPCX

7. PUTPCX

Description

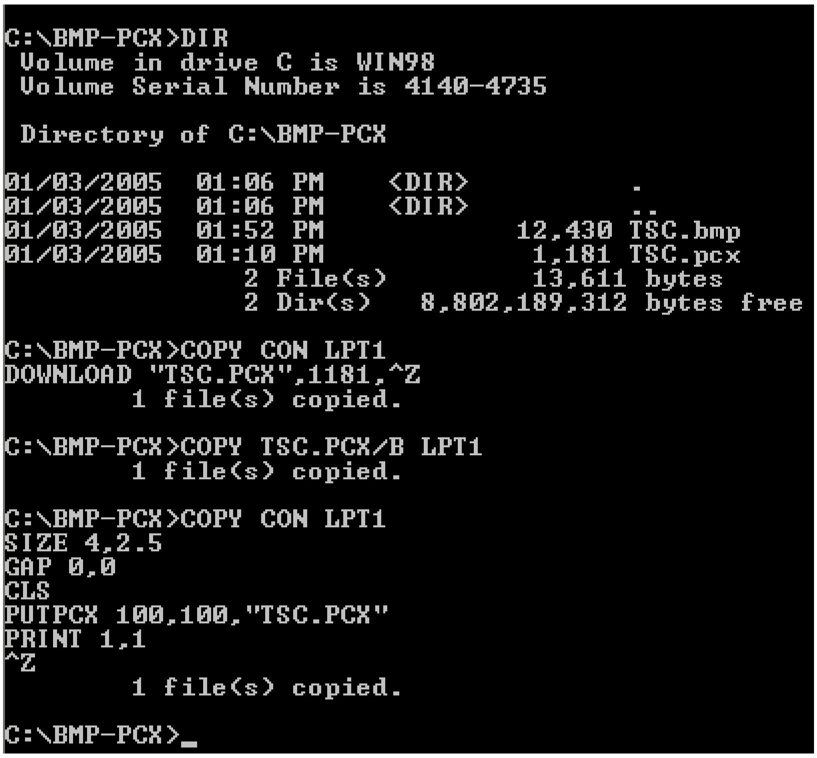
This command is used to print PCX format image.

Syntax

PUTPCX X, Y, ”filename”

Parameter	Description
x	The x-coordinate of the PCX image
y	The y-coordinate of the PCX image
filename	The downloaded PCX filename. Case sensitive

Example



```
C:\BMP-PCX>DIR
 Volume in drive C is WIN98
 Volume Serial Number is 4140-4735

 Directory of C:\BMP-PCX

01/03/2005  01:06 PM    <DIR>          .
01/03/2005  01:06 PM    <DIR>          ..
01/03/2005  01:52 PM            12,430 TSC.bmp
01/03/2005  01:10 PM             1,181 TSC.pcx
               2 File(s)         13,611 bytes
               2 Dir(s)   8,802,189,312 bytes free

C:\BMP-PCX>COPY CON LPT1
DOWNLOAD "TSC.PCX",1181,^Z
        1 file(s) copied.

C:\BMP-PCX>COPY TSC.PCX/B LPT1
        1 file(s) copied.

C:\BMP-PCX>COPY CON LPT1
SIZE 4,2.5
GAP 0,0
CLS
PUTPCX 100,100,"TSC.PCX"
PRINT 1,1
^Z
        1 file(s) copied.

C:\BMP-PCX>_
```

See Also

DOWNLOAD, BITMAP, PUTPCX

8. QRCODE

Description:

This command prints QR code.

Syntax

```
QRCODE x,y,ECC Level,cell width,mode,rotation,[model,mask,]"content"
```

Parameter	Description
x	The upper left corner x-coordinate of the QR code
y	The upper left corner y-coordinate of the QR code
ECC level	Error correction recovery level
	L : 7%
	M : 15%
	Q : 25%
	H : 30%
cell width	1~10
mode	Auto / manual encode
	A : Auto
	M : Manual
rotation	0 : 0 degree
	90 : 90 degree
	180 : 180 degree
	270 : 270 degree
model	1: (default), original version
	2: enhanced version
	(Almost smart phone is supported by this version.)
mask	0~8, default is 7
content	The encodable character set is described as below,
	Encodable character set:
	1) Numeric data: (digits 0~9)
	2) Alphanumeric data
	Digits 0-9
	Upper case letters A-Z
	Nine other characters: space, $ % * + - . / :)
	3) 8-bit byte data
	JIS 8-bit character set (Latin and Kana) in accordance with JIS X 0201
	4) Kanji characters
	Shift JIS values 8140HEX –9FFCHEX and E040HEX –EAA4 HEX. These are values shifted from those of JIS X 0208. Refer to JIS X 0208 Annex 1Shift Coded Representation for detail.

Data characters per symbol (for maximum symbol size):

	Model 1 (Version 14-L)	Model 2 (Version 40-L)
1). Numeric data：	1,167 characters	7,089 characters
2). Alphanumeric data：	707 characters	4,296 characters
3). 8-bit byte data：	486 characters	2,953 characters
4). Kanji data:	299 characters	1,817 characters

Manual mode

- * If “A” is the first character in the data string, then the following data after “A” is alphanumeric data.
- * If “N” is the first character in the data string, then the following data after “N” is numeric data.
- *If “B” is the first character in the data string, then the following 4 digits after “B” is used to specify numbers of data. After the 4 digits is the number of bytes of binary data to be encoded.
- *If “K” is the first character in the data string, then the following data after “K” is Kanji data.
- *If “!” is in the data string and follows by “N”, “A”, “B”, “K” then it will be switched to specified encodable character set.

Manual mode example:

QRCODE 100,10,L,7,M,0,M1,S1,"ATHE FIRMWARE HAS BEEN UPDATED"
(Where A: Alphanumeric data)
QRCODE 100,10,M,7,M,0,M1,S2,"N123456"
(Where N: Numeric data)
QRCODE 100,10,Q,7,M,0,M1,S3,"N123456!ATHE FIRMWARE HAS BEEN UPDATED"
(Where N: Numeric data ; !:Transfer char ; A: Alphanumeric data)
QRCODE 100,10,H,7,M,0,M1,S3,"B0012Product name"
(where B: Binary data ; 0012: 12 bytes)
QRCODE 100,10,M,7,M,0,M1,S3,"K"
(Where K: Kanji data)

Auto mode example:

QRCODE 100,10,M,7,A,0,"THE FIRMWARE HAS BEEN UPDATED"

(1) Example of generating QRCODE in Auto mode:

a. General data string

```
 SIZE 4,2.5
GAP 0.12,0
CLS
QRCODE 10,10,H,4,A,0,"ABCabc123"
QRCODE 160,160,H,4,A,0,"123ABCabc"
QRCODE 310,310,H,4,A,0,"打印机 ABCabc123"
PRINT 1,1
```

b. The string including <Enter>(i.e.: 0Dh, 0Ah)

```
SIZE 4,2.5
GAP 0.12,0
CLS
QRCODE 10,10,H,4,A,0,"ABC<Enter>
abc<Enter>
123"
QRCODE 160,160,H,4,A,0,"123<Enter>
ABC<Enter>
abc"
QRCODE 310,310,H,4,A,0,"打印机<Enter>
ABC<Enter>
abc<Enter>
123"
PRINT 1,1
```

c. Data concatenation (Must in DOENLOAD…EOP mode)

```
DOWNLOAD “DEMO.BAS”
SIZE 4,2.5
CAP 0.12,0
CLS
QRCODE 10,10,H,4,A,0,"ABCabc123"+STR$(1234)
QRCODE 160,160,H,4,A,0,"123ABCabc"+"1234"
QRCODE 310,310,H,4,A,0,"打印机 ABCabc123"+"1234"+"abcd"
PRINT 1,1
EOP
DEMO
```

d. Data including Double quotation mark, change (“) to \[“].

```
SIZE 4,2.5
CAP 0.12,0
CLS
QRCODE 10,10,H,4,A,0,"ABC\["]abc\["]123"
QRCODE 160,160,H,4,A,0,"123\["]ABC\["]abc"
QRCODE 310,310,H,4,A,0,"\["]打印机\["]ABCabc123"
PRINT 1,1
```

(2) Example of generating QRCODE in Manual mode:

a. a. General data string

```
SIZE 4,2.5
CAP 0.12,0
CLS
QRCODE 10,10,H,4,M,0,"AABC!B0003abc!N123"
QRCODE 160,160,H,4,M,0,"N123!AABC!B0003abc"
QRCODE 310,310,H,4,M,0,"K 打印机!AABC!B0006abc123"
PRINT 1,1
```

b. The string including <Enter>(i.e.: 0Dh, 0Ah), <Enter> shall be 8-bit byte data

```
SIZE 4,2.5
CAP 0.12,0
CLS
QRCODE 10,10,H,4,M,0,"AABC!B0007<Enter>
  abc<Enter>
  !N123"
  QRCODE 160,160,H,4,M,0,"N123!B0002<Enter>
  !AABC!B0005<Enter>
  abc"
  QRCODE 310,310,H,4,M,0,"K 打印机!B0002<Enter>
  !AABC!B0010<Enter>
  abc<Enter>
  123"
PRINT 1,1
```

c. Data concatenation (Must in DOENLOAD…EOP mode)

```
DOWNLOAD “A.BAS”
SIZE 4,2.5
CAP 0.12,0
CLS
  QRCODE 10,10,H,4,M,0,"AABC!B0006abc123!N"+STR$(1234)
  QRCODE 160,160,H,4,M,0,"N123!AABC!B0007abc"+"1234"
  QRCODE 310,310,H,4,M,0,"K 打印机!AABC!B0014abc123"+"1234"+"abcd"
 PRINT 1,1
 EOP
 A
```

d. Data including Double quotation mark, change (“) to \[“]

```
SIZE 4,2.5
CAP 0.12,0
CLS
  QRCODE 10,10,H,4,M,0,"AABC!B0005\["]abc\["]!N123"
  QRCODE 160,160,H,4,M,0,"N123!B0001\["]!AABC!B0004\["]abc"
  QRCODE 310,310,H,4,M,0,"B0001\["]!K 打印机!B0010\["]ABCabc123"
PRINT 1,1
```

9. REVERSE

Description

This command is used to reverse a region in image buffer.

Syntax

```
REVERSE X_start, Y_start, X_width, Y_height
```

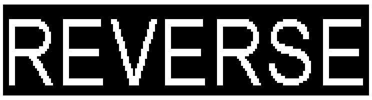
Parameter	Description
X_start	The x-coordinate of the starting point in dot
Y_start	The y-coordinate of the starting point in dot
X_width	The region width in x-axis direction in dot
Y_height	The region height in y-axis direction in dot

Note: ***203 DPI: 1 mm = 8 dots***
300 DPI: 1 mm = 12 dots

Recommended max. height of reversed black area is 12mm at 3" width. Height of reversed area that is larger than 12 mm may damage the power supply and affect the print quality.
Max. print ratio is different for each printer model. Desktop and industrial printer print ratio is limited to 20% and 30% respectively.

Example

```
SIZE 4,2.5
GAP 0,0
SPEED 6
DENSITY 8
DIRECTION 0
CLS
TEXT 100,100,"3",0,1,1,"REVERSE"
REVERSE 90,90,128,40
PRINT 1,
```


REVERSE

10. TEXT

Description

This command is used to print text on label

Syntax

TEXT X, Y, ”font”, rotation, x-multiplication, y-multiplication, “content”

Parameter	Description
X	The x-coordinate of the text
Y	The y-coordinate of the text
font	Font name
1	8 x 12 fixed pitch dot font
2	12 x 20 fixed pitch dot font
3	16 x 24 fixed pitch dot font
4	24 x 32 fixed pitch dot font
5	32 x 48 dot fixed pitch font
6	14 x 19 dot fixed pitch font OCR-B
7	14 x25 dot fixed pitch font OCR-A
8	21 x 27 dot fixed pitch font OCR-B
TST24.BF2	Traditional Chinese 24 x 24 font(Big 5)
TSS24.BF2	Simplified Chinese 24 x 24 font (GB)
K	Korean 24 x 24 font (KS)
Rotation	The rotation angle of text
0	0 degree
90	90 degrees, in clockwise direction
180	180 degrees, in clockwise direction
270	270 degrees, in clockwise direction
X-multiplication:	Horizontal multiplication, up to 10x. Available factors: 1~10 width (point) of true type font. 1 point=1/72 inch.
Y-multiplication:	Vertical multiplication, up to 10x. Available factors: 1~10 For true type font, this parameter is used to specify the height (point) of true type font. 1 point=1/72 inch.

Note:

1. If there is any double quote (“) within the text, please change it to \[“].
2. If to print OD(hex), please use \[R] to print CR in the program.
3. If to print OA(hex), please use\[A] to print LF in the program.
4.Only use capital letters.

Example 1.

```
SIZE 3,2
GAP 0,0
CLS
TEXT 100,100,"5",0,1,1,"\["]DEMO FOR TEXT\["]"
TEXT 100,200,"ROMAN.TTF",0,1,20,"\["]True Type Font Test Print\["]"
PRINT 1,1
```

Example 2:

```
DOWNLOAD F,"test.BAS"
SPEED 4
DENSITY 8
SET PEEL OFF
DIRECTION 0
SIZE 1.000,0.800
GAP 0.12,0.00
OFFSET 0.000
REFERENCE 0,0
:START
CLS
INPUT "Description",A$
Again:
F$=""
INPUT "Font:",1,F$
IF ASC(F$)>53 THEN GOTO Again
IF ASC(F$)<49 THEN GOTO Again
X_Again:
INPUT "X_multiple:",1,XM
IF XM>8 THEN GOTO X_Again
IF XM<1 THEN GOTO X_Again
Y_Again:
INPUT "Y_multiple:",1,YM
IF YM>8 THEN GOTO Y_Again
IF YM<1 THEN GOTO Y_Again

Z=LEN(A$)
WWidth=Z*XM*8
IF F$="1" THEN
    REM *****When Font1, the space between every single word is XM*2 dots*****
    WWidth=Z*(XM*8)
    SWidth=Z*(XM*2)
    X=101-((WWidth+SWidth)/2)
ELSEIF F$="2" THEN
    REM *****When Font2, the space between every single word is XM*2 dots*****
    WWidth=Z*(XM*12)
    SWidth=Z*(XM*2)
    X=101-((WWidth+SWidth)/2)
ELSEIF F$="3" THEN
    REM *****When Font3, the space between every single word is XM-1 dots*****
    WWidth=Z*(XM*16)
    SWidth=Z*(XM-1)
    X=101-((WWidth+SWidth)/2)
ELSEIF F$="4" THEN
    REM *****When Font4, the space between every single word is XM-1 dots*****
    WWidth=Z*(XM*24)
    SWidth=Z*(XM-1)
    X=101-((WWidth+SWidth)/2)
ELSEIF F$="5" THEN
    REM *****When Font5, the space between every single word is XM*4 dots*****
    WWidth=Z*(XM*32)
    SWidth=Z*(XM*4)
    X=101-((WWidth+SWidth)/2)
ENDIF
TEXT X,116,F$,0,XM,YM,A$
PRINT 1,1
GOTO START
EOP
```

Status Polling Commands (RS232)

<ESC>!?

Description

This command is used to obtain the printer status through serial port.
An inquiry request is solicited by sending an <ESC> [ASCII 27(Hex1B), escape character] as the beginning control character to the printer.
It can be sent any time, even in the event of printer error. One byte character is returned, of which one bit is used to flag the printer's current readiness status. If 0 is returned, the printer is ready to print labels.

Bit	Status
0	Head opened
1	Paper jam
2	Out of paper
3	Out of ribbon
4	Pause
5	Printing
6	Cover opened (option)
7	Environment Temperature over range (option)

Syntax

```
<ESC>!?
```

See Also

<ESC>!R

<ESC>!R

Description

This command is used to reset the printer. It can be sent at any time as long as the printer is powered on and not in the dump mode. The beginning of the command is an ESCAPE character (ASCII 27) (Hex1B). The files downloaded in DRAM will be deleted.

Syntax

```
<ESC>!R
```

Parameter	Description
N/A	N/A

See Also

<ESC>!?

~!@

Description

This command is used to inquire the mileage of the printer. The integer part of mileage is returned (the decimal part of mileage is not returned). It is returned to PC in ASCII characters. The ending character of mileage is 0x0D 0x0A.

Syntax

~!@

Parameter	Description
N/A	N/A

Example

~!@

~!A

Description

This command is used to inquire about the free memory (DRAM, FLASH) of the printer. The number of bytes of free memory is returned in decimal digits, with 0x0D 0x0A as ending code.

Syntax

~!A

Parameter	Description
N/A	N/A

Example

~!A

See Also

FILES

~!C

Description

This command is used to check and return if RTC is installed or not.

Syntax

```
~!C
```

Parameter	**Description**
0	RTC not installed
1	RTC installed

Example

```
~!C
```

~!D

Description

This command is used to enter DUMP mode.

Syntax

```
~!D
```

Parameter	**Description**
None	N/A

Example

```
~!D
```

~!F

Description

This command is used to inquire about files resident in the printer memory and fonts installed in the memory module.
The filename is returned in ASCII characters. Each file name ends with 0x20. The ending character is 0x0D 0x1A.

Syntax

```
~!F
```

Parameter	**Description**
None	N/A

Example

```
~!F
```

See Also

FILES

~!I

Description

The command is used to inquire the code page setting of the printer.
The returned information through RS-232 is given in the following format:

```
8 bit: 437, 001
```

Regarding to the information returned by the printer, please refer to CODEPAGE command.

Syntax

```
~!I
```

Parameter	**Description**
None	N/A

Example

```
~!I
```

See Also

CODEPAGE

~!T

Description

This command is used to inquire the model name and number of the printer.
They are returned in ASCII characters.

Syntax

```
~!T
```

Parameter	**Description**
None	N/A

Example

```
~!T
```

See Also

~!I, ~!F

File Management Commands

DOWNLOAD

Description

"DOWNLOAD" is a header of the file that is to be saved in the printer's Memory(DRAM). The downloaded files can be divided to two categories: program file and data file (including text data file, PCX graphic files and bitmap font file).

Syntax

1. Download a program file

DOWNLOAD [n,]"FILENAME.BAS"

Parameter	Description
n	Specify the memory which is used to save the download files.
n is ignored	Download files to DRAM only. F: Download files to main board flash memory.
FILENAME.BAS	The filename resident in printer memory.

Note:

(1). The filename is case sensitive.

(2). The extension of the program file must be ".BAS"

(3). If memory is not specified, all files will be downloaded to DRAM.

No Battery is used to backup DRAM. The downloaded files in DRAM will be lost in case turns off printer power.

2. **Download a data file**

DOWNLOAD [n,]“FILENAME”, DATA SIZE, DATA CONTENT…where

Parameter	**Description**
n	Specify the memory location to save the download files.
n is ignored	Download files to DRAM only. If you would like to save the files from DRAM to Flash memory before turning off power, you can issue MOVE command to printer to move the files from DRAM to Flash memory.
	F: Download files to main board flash memory.
	E: Download files to expansion memory module.
FILENAME.BAS	The filename resident in printer memory.
DATA SIZE	The actual file size in number of bytes.

Note:

(1). For text data file, CR (carriage return) 0x0D and LF (Line Feed) 0x0A are the separator of data.

(2). If memory is not specified, all files will be downloaded to DRAM. No Battery is used to backup DRAM. The downloaded files in DRAM will be lost in case turns off printer power.

Example

The program listed below will download to printer SDRAM.

```
DOWNLOAD “EXAMPLE.BAS”
SIZE 4,4
GAP 0,0
DENSITY 8
SPEED 6
DIRECTION 0
REFERENCE 0,0
SET PEEL OFF
CLS
TEXT 100,100,”3”,0,1,1,”EXAMPLE PROGRAM”
PRINT 1
EOP
```

Note: When writing a download program, “DOWNLOAD” header must be placed in the beginning of file, and “EOP” must be placed at the end of program.

To run the program, you can call the main filename without BAS extension or use RUN command to start the download program.

Example:

1. Call the main filename

```
C:\>COPY CON LPT1<ENTER>
EXAMPLE<ENTER>
<CTRL><Z>
C:\>
```

2. Use Run command to start the program

```
C:\>COPY CON LPT1<ENTER>
RUN “EXAMPLE.BAS”<ENTER>
<CTRL><Z>
C:\>
```

Below is an example of downloading data file.

```
DOWNLOAD “DATA”,20,COMPUTER<Enter>
2001<Enter>
21<Enter>
```

Note: <ENTER> stands for keyboard “ENTER” key. In the above example, please press “ENTER” key instead of typing <ENTER> in the above example.

See Also

EOP, RUN, PUTBMP, PUTPCX,

EOP

Description

End of program. To declare the start and end of BASIC language commands used in a program, the DOWNLOAD “FILENAME.BAS” must be added in the first line of the program, and “EOP” statement at the last line of program.

Syntax

```
EOP
```

Example

```
DOWNLOAD “DEMO.BAS”
SIZE 4,4
GAP 0,0
DENSITY 8
SPEED 6
DIRECTION 0
REFERENCE 0,0

SET PEEL OFF
CLS
TEXT 100,100,”3”,0,1,1,”DEMO PROGRAM”
PRINT 1
EOP
```

See Also

DOWNLOAD, EOP,

FILES

Description

This command prints out the filenames (or lists the files through RS-232) that remained in the printer memory (both FLASH memory and DRAM). The total memory size and available memory size are printed out or lists as well.

Syntax

FILES

Example

Follow the steps below to print out (or lists the files through RS-232) the files that are saved in printer memory in DOS environment through serial port or parallel port connection.

```
C:\>MODE COM1 96,N,8,1<ENTER>
C:\>COPY CON COM1<ENTER>
     FILES<ENTER>
     <CTRL><Z><ENTER>
C:\>

Or

C:\>COPY CON LPT1<ENTER>
     FILES<ENTER>
     <CTRL><Z><ENTER>
```

Note: <ENTER> stands for PC keyboard “ENTER” key.
<CTRL><Z> means to hold PC keyboard “CTRL” key then press the PC keyboard <Z> key.

See Also

~!F, KILL

KILL

Description

This command deletes a file in the printer memory. The wild card (*) will delete all files resident in specified DRAM or FLASH memory.

Syntax

```
KILL [n],”FILENAME”
```

Parameter	**Description**
n	Specify the memory location that files will be deleted.
n is ignored	Kill files saved in DRAM.
	F: Kill files from main board flash memory.

Note:

(1). If optional parameter n is not specified, firmware will delete the file in DRAM.

Syntax example

```
1. KILL “FILENAME”
2. KILL “*.PCX”
3. KILL “*”
4. KILL F,“FILENAME”
5. KILL E,“*.PCX”
```

Example

Users can use printer SELFTEST utility to list printer configurations and files saved in the printer memory, or use the FILES command to print the downloaded file list in printer. Follow the steps below to delete files in the printer memory via parallel port connection.

```
C:\>COPY CON LPT1<ENTER>
       FILES<ENTER>
       <CTRL><Z><ENTER>
C:\>COPY CON LPT1<ENTER>
      KILL “DEMO.BAS” <ENTER>
      <CTRL><Z><ENTER>
C:\>COPY CON LPT1<ENTER>
       FILES<ENTER>
       <CTRL><Z><ENTER>
```

Note: <ENTER> stands for PC keyboard “ENTER” key.
<CTRL><Z> means to hold PC keyboard “CTRL” key then press the PC keyboard <Z> key

See Also

~!F, FILES

MOVE

Description

This command is used to move downloaded files from DRAM to the FLASH memory.

Syntax

```
MOVE
```

Parameter	**Description**
N/A	N/A

See Also

DOWNLOAD, EOP

RUN

Description

This command is used to execute a program that resident in printer memory

Syntax

```
RUN “FILENAME.BAS”
```

Example

```
C:\>COPY CON LPT1<ENTER>
RUN “DEMO.BAS”<ENTER>
<CTRL><Z><ENTER>
C:\>
```

Note: <ENTER> stands for PC keyboard “ENTER” key.
<CTRL><Z> means to hold PC keyboard “CTRL” key then press the PC keyboard <Z> key

See Also

DOWNLOAD, EOP

BASIC Commands and Functions

ABS( )

Description

This function returns the absolute value of an integer, floating point or variable.

Syntax

```
ABS (-100)
ABS (-99.99)
ABS (VARIABLE)
```

Example

```
DOWNLOAD “TEST.BAS”
SIZE 4,4
GAP 0,0
DENSITY 8
SPEED 3
DIRECTION 0
REFERENCE 0,0

SET PEEL OFF
CLS
A=ABS(-100)
B=ABS(-50.98)
C=-99.99
TEXT 100,100,”3”,0,1,1,STR$(A)
TEXT 100,150,”3”,0,1,1,STR$(B)
TEXT 100,200,”3”,0,1,1,STR$(ABS(C))
PRINT 1
EOP
```

See Also

DOWNLOAD, EOP

ASC( )

Description

This function returns the ASCII code of the character.

Syntax

```
ASC (“A”)
```

Example

```
DOWNLOAD “TEST.BAS”
SIZE 3,4
GAP 0,0
DENSITY 8
SPEED 3
DIRECTION 0
REFERENCE 0,0

SET PEEL OFF
CLS
CODE1=ASC(“A”)
TEXT 100,100,”3”,0,1,1,STR$(CODE1)
PRINT 1
EOP
```

See Also

DOWNLOAD, EOP, STR$()

CHR$( )

Description

This function returns the character that has the specified ASCII code.

Syntax

```
CHR$(n)
```

Parameter	Description
n	The ASCII code

Example

```
DOWNLOAD "TEST.BAS"
SIZE 3,4
GAP 0,0
DENSITY 8
SPEED 3
DIRECTION 0
REFERENCE 0,0

SET PEEL OFF
CLS
A=65
WORD$=CHR$(A)
TEXT 100,100,"3",0,1,1,WORD$
PRINT 1
EOP
```

See Also

DOWNLOAD, EOP, STR$(), ASC$()

END

Description

This command states the ending of program.

Syntax

```
END
```

Example

```
DOWNLOAD "DEMO.BAS"
SIZE 3,2
GAP 0,0
DENSITY 8
SPEED 6
DIRECTION 0
REFERENCE 0,0

SET PEEL OFF
CLS
TEXT 200,60,"4",0,1,1,"END COMMAND TEST"
X=300
Y=200
X1=500
Y1=400
GOSUB DR_LINE
PRINT 1
END

:DR_LINE
FOR I=1 TO 100 STEP 10
BOX X+I,Y+I,X1-I,Y1-I,5
NEXT
RETURN
EOP
DEMO
```

See Also

DOWNLOAD, EOP

EOF( )

Description

This function is used to detect an opened download file to see whether it has reached the end of file.

Syntax

EOF (File Handle)

Parameter	**Description**
File handle	Either 0 or 1

Parameter	**Description**
None-zero	End of file
0	Not end of file

Example

```
DOWNLOAD "DATA",16,COMPUTER
2000

DOWNLOAD "DEMO.BAS"
SIZE 3,3
GAP 0.0,0
DENSITY 8
SPEED 4
DIRECTION 0
REFERENCE 0,0
SET PEEL OFF
CLS
OPEN "DATA",0
SEEK 0,0
Y=110
TEXT 10,10,"3",0,1,1,"*****EOF TEST*****"
:A
Temp$=""
READ 0,ITEM$,P
TEXT 10,Y,"2",0,1,1,ITEM$+"$"+STR$(P)+"[EOF(0)="+STR$(EOF(0))+"]"
BARCODE 10,Y+25,"39",40,1,0,2,4,"PRICE-"+STR$(P)
Y=Y+100
IF EOF(0)=0 THEN GOTO A
PRINT 1
EOP
DEMO
```

See Also

DOWNLOAD, EOP, OPEN, READ, SEEK

OPEN

Description

This command is used to open a downloaded file and establish the file handle. Up to 2 files can be opened at the same time. The file to be opened should be downloaded prior to using this command.

Syntax

```
OPEN “Filename”, File handle
```

Parameter	**Description**
Filename	The file downloaded in the printer memory
File handle	Either 0 or 1.

Example

If a file by the name of “DATA” is to be downloaded,
The file format contains:

```
DOWNLOAD "DATA1",56,COMPUTER
2000
12
MOUSE
500
13
KEYBOARD
300
100

DOWNLOAD "DATA2",56,Computer
3000
32
Mouse
900
93
Keyboard
700
700
```

Saving the above contents of data under the file name of “DATA”. Follow the steps below to download data to the printer

```
C:\>COPY DATA/B LPT1
```

If a file by name of “DEMO.BAS is to be downloaded, the file format contains:

```
DOWNLOAD "DEMO.BAS"
SIZE 3,1
GAP 0,0
```

```
DENSITY 8
SPEED 4
DIRECTION 0
REFERENCE 0,0
SET PEEL OFF
I=1
Y=100
GOSUB OpenData
:Start
CLS
TEXT 10,10,"3",0,1,1,"*****OPEN COMMAND TEST*****"
ITEM$=""
READ 0,ITEM$,P,Q
TEXT 10,Y,"2",0,1,1,ITEM$+"$"+STR$(P)+"[EOF(0)="+STR$(EOF(0))+"]"
BARCODE 10,Y+25,"39",40,1,0,2,4,"PRICE*"+STR$(Q)+"="+STR$(P*Q)
Y=Y+100
PRINT 1
Y=100
IF EOF(0)=1 THEN GOSUB OpenData
IF EOF(0)=0 THEN GOTO Start
END
:OpenData
IF I=1 THEN OPEN "DATA1",0
IF I=2 THEN OPEN "DATA2",0
SEEK 0,0
IF I>2 THEN END
I=I+1
RETURN
EOP
DEMO
```

Saving the above contents of data under the file name of “DEMO”.

Follow the steps below to download data to the printer <under MS-DOS mode>:

```
C:\>COPY DEMO/B LPT1
```

Execute DEMO.BAS in printer:

```
C:\>COPY CON LPT1
DEMO
<Ctrl><Z>
```

The above example instructs the printer to open the file “DATA1” and “DATA2” with same file handle of 0, and read items from the file.

See Also

DOWNLOAD, EOP, READ, EOF, LOF, SEEK, FREAD$()

READ

Description

This command is used to read data from downloaded data file

Syntax

READ file handle, variables

Parameter	Description
File handle	0 or 1.
variables	string, integer or float point variable

Example

```
DOWNLOAD "DATA1",20,COMPUTER
2000
12

DOWNLOAD "DATA2",16,Mouse
900
93

DOWNLOAD "DEMO.BAS"
SIZE 3,1
GAP 0,0
DENSITY 8
SPEED 4
DIRECTION 0
REFERENCE 0,0
SET PEEL OFF
I=0
Y=100
OPEN "DATA1",0
OPEN "DATA2",1
SEEK 0,0
SEEK 1,0
:Start
CLS
TEXT 10,10,"3",0,1,1,"*****READ COMMAND TEST*****"
TEXT 10,50,"3",0,1,1,"OPEN-READ DATA"+STR$(I+1)
ITEM$=""
READ I,ITEM$,P,Q
TEXT 10,Y,"2",0,1,1,ITEM$+"$"+STR$(P)
BARCODE 10,Y+25,"39",40,1,0,2,4,"PRICE*"+STR$(Q)+"="+STR$(P*Q)
Y=Y+100
PRINT 1
```

```
Y=100
IF I<=1 THEN
   IF EOF(I)=1 THEN
      I=I+1
      GOTO Start
   ELSE
      GOTO Start
   ENDIF
ELSE
   END
ENDIF
EOP
DEMO
```

See Also

DOWNLOAD, EOP, OPEN, EOF, LOF, SEEK, FREAD$()

SEEK

Description

This command is used to shift the specified file pointer to a certain position.

Syntax

SEEK file handle, offset

Parameter	**Description**
File handle	0 or 1.
offset	the offset characters which are shifted to the beginning of a new position

Example

```
DOWNLOAD "DATA",12,1234567890

DOWNLOAD "TEST.BAS"
SIZE 3,1
GAP 0,0
DENSITY 8
SPEED 3
DIRECTION 1
REFERENCE 0,0
CLS
OPEN "DATA",0
SEEK 0,4
READ 0,Num$
    TEXT 100,10,"3",0,1,1,"SEEK COMMAND TEST"
BAR 100,40,300,4
    TEXT 100,60,"3",0,1,1,"SHIFT 4 CHARACTERS"
    TEXT 100,110,"3",0,1,1,Num$
BAR 100,140,300,4
SEEK 0,0
READ 0,Num$
    TEXT 100,160,"3",0,1,1,"SHIFT 0 CHARACTERS"
    TEXT 100,210,"3",0,1,1,Num$
PRINT 1
EOP
TEST
```

See Also

DOWNLOAD, EOP, OPEN, READ, EOF, LOF, FREAD$()

LOF( )

Description

This function returns the size of the specified file.

Syntax

LOF (“FILENAME”)

Parameter	Description
FILENAME	The file downloaded in the printer memory.

Example

```
DOWNLOAD "DATA1",10,1234567890

DOWNLOAD "DATA2",15,ABCDEFGHIJKLMNO

DOWNLOAD "LofTest.BAS"
SIZE 3,3
GAP 0.08,0
DENSITY 8
SPEED 3
DIRECTION 0
REFERENCE 0,0

SET PEEL OFF
CLS
   OPEN "DATA1",0
   OPEN "DATA2",1
      TEXT 10,20,"4",0,1,1,"LOF() FUNCTION TEST"
   J=LOF("DATA1")
   K=LOF("DATA2")

   TEXT 10,140,"3",0,1,1,"DATA1 IS: "+STR$(J)+" Bytes"
   TEXT 10,200,"3",0,1,1,"DATA2 IS: "+STR$(K)+" Bytes"
      PRINT 1
EOP
 LofTest
```

See Also

DOWNLOAD, EOP, OPEN, READ, EOF, SEEK, FREAD$()

FREAD$( )

Description

This function reads a specified number of bytes of data from a file.

Syntax

FREAD$ (file handle, byte)

Parameter	**Description**
file handle	Either 0 or 1
byte	Number of bytes to be read

Example

```
DOWNLOAD "DATA1",10,1234567890
DOWNLOAD "DATA2",15,ABCDEFGHIJKLMNO
DOWNLOAD "OPEN2.BAS"
SIZE 3,3
GAP 0.08,0
DENSITY 8
SPEED 3
DIRECTION 0
REFERENCE 0,0
SET PEEL OFF
CLS
   Y$=""
   Z$=""
   OPEN "DATA1",0
   OPEN "DATA2",1
   SEEK 0,0
   SEEK 1,0
   TEXT 10,260,"3",0,1,1,"FREAD$(0,6) IS: "+Y$
   TEXT 10,320,"3",0,1,1,"FREAD$(1,6) IS: "+Z$
   PRINT 1
EOP
```

See Also

DOWNLOAD, EOP, OPEN, READ, EOF, LOF(), SEEK

FOR…NEXT LOOP

Description

Loop is used to execute one or more lines of program repetitively. Before anything, a value should be assigned the loop counter to specify the execution times. Nested loop is allowed (up to 39 nested loops) in this printer. Jumping out in the middle of the FOR…NEXT loop is prohibited because it is not a good programming skill .

Syntax

```
For variable = start TO end STEP increment
      statement; start < end
NEXT
```

Parameter	**Description**
variable	The variable name is up to 8 characters
start	Can be integer or floating point numbers
end	Can be integer of floating point numbers
increment	nteger or floating point, positive or negative.

Example

```
DOWNLOAD "LOOP.BAS"
SIZE 3,3
GAP 0.08,0
DENSITY 8
SPEED 4
DIRECTION 1
CLS
FOR I=1 TO 10 STEP 1
TEXT 100,10+30*(I-1),"3",0,1,1,STR$(I)
NEXT
FOR I=1 TO 1000 STEP 100
TEXT 200,10+((I-1)/10)*3,"3",0,1,1,STR$(I)
NEXT
FOR I=110 TO 10 STEP -10
TEXT 300,10+(ABS(I-110))*3,"3",0,1,1,STR$(I)
NEXT
FOR I=1 TO 5 STEP 0.5
IF I-INT(I)=0 THEN Y=10+60*(I-1) ELSE Y=Y+30
TEXT 400,Y,"3",0,1,1,STR$(I)
NEXT
PRINT 1
EOP
LOOP
```

See Also

DOWNLOAD, EOP

IF…THEN…ELSE…ENDIF

Description

Use IF…THEN block to execute one or more statements conditionally.
You can use either a single-line syntax or multiple-line "block" syntax:

Syntax

```
IF condition THEN statement
```

Notice: the single-line form of IF …THEN does not use an ENDIF statement.

Or

```
IF condition THEN
        Statements
ENDIF
```

Or

```
IF condition THEN
        Statements
ELSE
        Statements
ENDIF
```

Or

```
IF condition 1 THEN
        Statement block 1
ELSEIF condition 2 THEN
        Statement block 2
.   .   .
ELSEIF condition n THEN
        Statement block n
ENDIF
```

The syntax of IF…THEN…ELSE requires that the command be typed in one single line in less than 255 characters.

Parameter	**Description**
condition	Available relational operator: <, >, =, <=, >=
statement	Only one statement is available in

Example

```
DOWNLOAD "DEMO.BAS"
```

```
SIZE 3,3
GAP 0.12,0
SPEED 4
DENSITY 8
DIRECTION 1
REFERENCE 0,0
OFFSET 0.00

SET PEEL OFF
CLS
A=0
B=0
C=0
D=0
E=0
F=0
G=0
H=0
J=0
K=0
L=0
FOR I=1 TO 100
    IF I-INT(I/1)*1=0 THEN A=A+I
    IF I-INT(I/2)*2=1 THEN B=B+I ELSE C=C+I
  IF I-INT(I/3)*3=0 THEN
        D=D+I
  ENDIF
  IF I-INT(I/5)*5=0 THEN
        E=E+I
  ELSE
        F=F+I
  ENDIF
  IF I-INT(I/7)*7=0 THEN
    G=G+I
  ELSEIF I-INT(I/17)*17=0 THEN
        H=H+I
  ELSEIF I-INT(I/27)*27=0 THEN
        J=J+I
  ELSEIF I-INT(I/37)*37=0 THEN
        K=K+I
  ELSE
        L=L+I
  ENDIF
NEXT
TEXT 100,110,"3",0,1,1,"(1) 1+2+3+...+100="+STR$(A)
TEXT 100,160,"3",0,1,1,"(2) 1+3+5+...+99="+STR$(B)
TEXT 100,210,"3",0,1,1,"(3) 2+4+6+...+100="+STR$(C)
TEXT 100,260,"3",0,1,1,"(4) 3+6+9+...+99="+STR$(D)
TEXT 100,310,"3",0,1,1,"(5) 5+10+15+...+100="+STR$(E)
TEXT 100,360,"3",0,1,1,"      (1)-(5)="+STR$(F)
TEXT 100,410,"3",0,1,1,"(6) 7+14+21+...+98="+STR$(G)
TEXT 100,460,"3",0,1,1,"(7) 17+34+51+...+85="+STR$(H)
TEXT 100,510,"3",0,1,1,"(8) 27+54+...+81="+STR$(J)
TEXT 100,560,"3",0,1,1,"(9) 37+74="+STR$(K)
TEXT 100,610,"3",0,1,1,"       (1)-(6)-(7)-(8)-(9)="+STR$(L)
PRINT 1,1
EOP

DOWNLOAD “IFTHEN.BAS”
SIZE 3,4
GAP 0,0
DENSITY 8
SPEED 3
DIRECTION 0
REFERENCE 0,0

SET PEEL OFF
CLS
A=50
B=5
C$=""
D$=""

:L1
IF A>100 THEN GOTO L1 ELSE A=A+10
C$=STR$(A)+" IS SMALLER THAN 100"
TEXT 100,10,"4",0,1,1,C$
PRINT 1
END

:L2
A=A+B
D$=STR$(A)+" IS LARGER THAN 100"
TEXT 100,100,"4",0,1,1,D$
PRINT 1
GOTO L1
EOP
```

Note：

If the result of the expression is nonzero, the statement following THEN will be executed. If the result of the expression is zero, and the statement following the ELSE present, it will be executed. Otherwise the next line of statement is executed.

If there are block of statements in IF…THEN …ELSE, ENDIF must be used at the end of the IF…THEN …ELSE statement.

Limitations:

The total numbers of nested IF …THEN …ELSE statement in a program can not exceed than 40.

The total numbers of nested IF …THEN …ELSE, FOR…NEXT, GOSUB RETURN in a program can not exceed than 40 loops.

See Also

DOWNLOAD, EOP

GOSUB…RETURN

Description

Branch to and return from a subroutine. Branch to the specified label and execute subroutines until “RETURN” is reached and then go back to the statement following the GOSUB statement.

Syntax

```
GOSUB LABEL
      statement
END
:LABEL
      statement
RETURN
```

Parameter	Description
LABEL	Beginning of the subroutine. The maximum length of the label is 8 characters.

Example

```
DOWNLOAD "GOSUB1.BAS"
SIZE 3,3
GAP 0,0
DENSITY 8
SPEED 4
DIRECTION 0
CLS
TEXT 10,10,"3",0,1,1,"GOSUB & RETURN COMMAND TEST"
GOSUB DR_BOX
PRINT 1
END
:DR_BOX
      FOR I=21 TO 81 STEP 10
         BOX 80+I,80+I,80+300-I,80+300-I,5
   NEXT
RETURN
EOP
GOSUB1
```

See Also

DOWNLOAD, EOP, END, GOTO

GOTO

Description

This command is used to branch to a specified label. The label cannot exceed 8 characters in length.

Syntax

```
GOTO LABEL

:LABEL
```

Parameter	**Description**
None	N/A

Example

```
DOWNLOAD "GOTO1.BAS"
SIZE 3,3
GAP 0.08,0
DENSITY 8
SPEED 4
DIRECTION 1
REFERENCE 0,0

SET PEEL OFF
CLS
A=0
TOTAL=0
:START
  IF A<100 THEN
    GOTO SUM
  ELSE
    GOTO PRTOUT
  ENDIF
:SUM
  A=A+1
  TOTAL=TOTAL+A
  GOTO START
:PRTOUT
    B$="THE SUMMATION OF 1..100 IS "+STR$(TOTAL)
  TEXT 10,100,"3",0,1,1,B$
    PRINT 1
END
EOP
```

See Also

DOWNLOAD, EOP, END, GOSUB…RETURN

REM

Description

Comment. Prefix is “REM” that will be ignored by the printer.

Syntax

```
REM
```

Example

```
REM ********************************
REM This is a demonstration program*
REM ********************************
DOWNLOAD "REMARK.BAS"
SIZE 3,3
GAP 0.08,0
DENSITY 8
SPEED 4
DIRECTION 1
REFERENCE 0,0

SET PEEL OFF
CLS
TEXT 50,50,"3",0,1,1,"REMARK DEMO PROGRAM"
REM TEXT 50,100,"3",0,1,1,"REMARK DEMO PROGRAM"
PRINT 1,1
EOP
```

See Also

DOWNLOAD, EOP, END

INT( )

Description

This function is used to truncate a floating point number.

Syntax

INT (n)

Parameter	**Description**
n	n can be positive or negative integer, floating point number or mathematical expression.

Example

```
DOWNLOAD "DEMO.BAS"
SIZE 3,2
GAP 0,0
DENSITY 8
SPEED 3
DIRECTION 0
REFERENCE 0,0

SET PEEL OFF
CLS
REM **** To round up or down****
INPUT "Number:",Num
N=INT(Num+0.5)
IF N>Num THEN
    TEXT 50,100,"3",0,1,1,"To round up= "+STR$(N)
ELSE
    TEXT 50,100,"3",0,1,1,"To round down= "+STR$(N)
ENDIF
PRINT 1
EOP
```

See Also

DOWNLOAD, EOP, END, ABS(), ASC(), STR$()

LEFT$( )

Description

This function returns the specified number of characters down from the initial character of a string.

Syntax

LEFT$ (X$, n)

Parameter	Description
X$	The string to be processed
n	The number of characters to be returned

Example

```
DOWNLOAD "STR1.BAS"
SIZE 3.00,3.00
GAP 0.08,0.00
SPEED 4.0
DENSITY 8

DIRECTION 0
REFERENCE 0,0
CLS
A$="BARCODE PRINTER DEMO PRINTING"
C$=LEFT$(A$,10)
TEXT 10,10,"3",0,1,1,A$
TEXT 10,100,"3",0,1,1,"10 LEFT 10 CHARS: "+C$
PRINT 1
EOP
```

See Also

DOWNLOAD, EOP, END, RIGHT$(), MID$(), LEN(), STR$()

LEN( )

Description

This function returns the length of a string.

Syntax

LEN (string)

Parameter	**Description**
string	The string whose length is to be measured.

Example

```
DOWNLOAD "DEMO.BAS"
SIZE 3.00,3.00
GAP 0.08,0.00
SPEED 4.0
DENSITY 8

DIRECTION 0
REFERENCE 0,0
CLS
A$="TAIWAN SEMICONDUCTOR CO., LTD"
B=LEN(A$)
TEXT 10,10,"3",0,1,1,A$
TEXT 10,50,"3",0,1,1,"STRING LENGTH="+STR$(B)
PRINT 1
EOP
```

See Also

DOWNLOAD, EOP, END, LEFT$(), LEN(), RIGHT$(), MID$(), STR$(), VAL()

MID$( )

Description

This function is used to get the specified number of characters down from the mth character of a string.

Syntax

MID$(string, m, n)

Parameter	Description
string	The string to be processed.
m	The beginning of mth characters in the string. 1 <= m <= string length
n	The number of characters to return.

Example

```
DOWNLOAD "DEMO.BAS"
SIZE 3.00,3.00
GAP 0.08,0.00
SPEED 4.0
DENSITY 8

DIRECTION 0
REFERENCE 0,0

CLS
A$="TAIWAN SEMICONDUCTOR CO., LTD"
E$=MID$(A$,11,10)
TEXT 10,10,"3",0,1,1,A$
TEXT 10,200,"3",0,1,1,"10 MIDDLE CHARS: "+E$
PRINT 1
EOP
```

See Also

DOWNLOAD, EOP, END, LEFT$(), LEN(), RIGHT$(), STR$(), VAL()

RIGHT$( )

Description

This function returns the specified number of characters up from the end of a string.

Syntax

```
RIGHT$ (X$, n)
```

Parameter	**Description**
X$	The string to be processed
n	The number of characters to be returned from the right side (end) of the string

Example

```
DOWNLOAD "DEMO.BAS"
SIZE 3.00,3.00
GAP 0.08,0.00
SPEED 4.0
DENSITY 8

DIRECTION 0
REFERENCE 0,0

CLS
A$="TAIWAN SEMICONDUCTOR CO., LTD"
D$=RIGHT$(A$,10)
TEXT 10,10,"3",0,1,1,A$
TEXT 10,150,"3",0,1,1,"10 RIGHT CHARS: "+D$
PRINT 1
EOP
```

See Also

DOWNLOAD, EOP, END, LEFT$(), LEN(), MID$(), STR$(), VAL()

STR$( )

Description

This function converts a specified value or expression into corresponding string of characters.

Syntax

STR$ (n)

Parameter	Description
n	An integer, floating point number or mathematical expression

Example

```
DOWNLOAD "DEMO.BAS"
SIZE 3.00,3.00
GAP 0,0.00
SPEED 4.0
DENSITY 8
DIRECTION 0
REFERENCE 0,0
CLS
A$="TAIWAN SEMICONDUCTOR CO., LTD"
F=100
G=500
H$=STR$(F+G)
TEXT 10,10,"3",0,1,1,A$
TEXT 10,60,"3",0,1,1,"F="+STR$(F)
TEXT 10,110,"3",0,1,1,"G="+STR$(G)
TEXT 10,160,"3",0,1,1,"F+G="+H$
PRINT 1
EOP
DEMO
```

See Also

DOWNLOAD, EOP, END, LEFT$(), LEN(), RIGHT$(), MID$(), VAL()

VAL( )

Description

This function is used to convert numeric character into corresponding integer or floating point number.

Syntax

VAL (“numeric character”)

Parameter	Description
numeric character	“0~9”, “.”

Example

```
DOWNLOAD "DEMO.BAS"
SIZE 3.00,3.00
GAP 0.00,0.00
SPEED 4.0
DENSITY 8
DIRECTION 0
REFERENCE 0,0
CLS
    A$="TAIWAN SEMICONDUCTOR CO., LTD"
  F$="100"
  G$="500"
  H=VAL(F$)+VAL(G$)
  I$=STR$(H)
  TEXT 10,10,"3",0,1,1,A$
  TEXT 10,60,"3",0,1,1,"F="+F$
  TEXT 10,110,"3",0,1,1,"G="+G$
  TEXT 10,160,"3",0,1,1,"F+G="+I$
  PRINT 1
EOP
DEMO
```

See Also

DOWNLOAD, EOP, END, LEFT$(), LEN(), RIGHT$(), MID$(), STR$()

BEEP

Description

This command is used to issue a beep sound on portable keyboard.

Syntax

```
BEEP
```

Parameter	**Description**
None	N/A

Example

```
DOWNLOAD “DEMO.BAS”
SIZE 3,4
GAP 0,0
DENSITY 8
SPEED 6
DIRECTION 0
REFERENCE 0,0
SET PEEL OFF
CLS
BEEP
INPUT “Text1 =”,TEXT1$
TEXT 100,100,”3”,0,1,1,TEXT1$
PRINT 1
EOP
```

Device Reconfiguration Commands

SET COUNTER

Description

Counter can be a real counter or a variable.
This setting sets the counter number in program and their increments.
There are three different kind of counters: digit (0~9~0), lower case letter (a~z~a) and upper case letter (A~Z~A).

Syntax

```
SET COUNTER @n step
@n = “Expression”
```

Parameter	**Description**
@n	n: counter number. There are 51 counters available (@0~@50) in the printer.
step	The increment of the counter, can be positive or negative. -999999999<= step <=999999999 If the counter is used as a fixed variable, please set the increment to 0.
Expression	Initial string. String length is 101 bytes

Example

```
SIZE 3,3
GAP 0,0
DENSITY 8
SPEED 6
DIRECTION 0
REFERENCE 0,0
SET COUNTER @1 1
@1="00001"
SET COUNTER @2 5
@2="AB000001"
CLS
TEXT 50,50,"3",0,1,1,@1
BARCODE 50,100,"39",48,1,0,2,4,@2
PRINT 2,1
```

See Also

PRINT, TEXT, BARCODE

SET KEY1, SET KEY2

Description

This setting is used to enable/disable the KEY1/KEY2 function. The default function of KEY1 is “FEED” key, KEY2 is “PAUSE” key .Before setting KEY1 /KEY2 function otherwise, please disable KEY1/KEY2 first. The setting will remain resident in the printer even when the printer is power off.

Syntax

```
SET KEY1 ON/OFF
SET KEY2 ON/OFF
```

Parameter	**Description**
ON	Enable KEY1 as FEED function Enable KEY2 as PAUSE function
OFF	Disable KEY1 as FEED function Disable KEY2 as PAUSE function

Note: The setting will remain in the printer even if the printer is power off.

Example

```
DOWNLOAD “DEMO.BAS”
SIZE 3,1
GAP 0,0
DENSITY 8
SPEED 3
DIRECTION 0
REFERENCE 0,0

SET KEY1 OFF
SET KEY2 OFF
KEY1=0
KEY2=0


CLS
:START
IF KEY1=1 THEN
    CLS
  TEXT 100,10,”3”,0,1,1,”KEY1 (FEED key) is pressed!!”
  PRINT 1,1
ELSEIF KEY2=1 THEN
    CLS
  TEXT 100,10,”3”,0,1,1,”KEY2 (PAUSE key) is pressed!!”
    TEXT 100,60,”3”,0,1,1,”End of test”
  PRINT 1,1
```

```
   SET KEY1 ON
   SET KEY2 ON
   END
ENDIF
GOTO START
EOP
DEMO
```

See Also

OFFEST, PRINT

SET PEEL

Description

This setting is used to enable/disable the self-peeling function.
The default setting for this function is off. When this function is set on, the printer stops after each label printing, and does not print the next label until the peeled label is taken away.
This setting will be saved in printer memory when turning off the power.

Syntax

```
SET PEEL ON/OFF
```

Parameter	Description
ON	Enable the self-peeling function
OFF	Disable the self-peeing function

Example

```
REM ***SELF-PEELING FUNCTION ON***
SIZE 3,4
GAP 0,0
DENSITY 8
SPEED 6
DIRECTION 0
REFERENCE 0,0
SET PEEL ON
CLS
TEXT 50,100,"3",0,1,1,"SELF-PEELING FUNCTION TEST"
PRINT 5
```

See Also

OFFEST, PRINT

SET TEAR & SET STRIPPER

Description

This command is used to enable/disable feeding label to gap/black mark position for tearing off.
This setting will be saved in printer memory when turning off the power.

Syntax

```
SET TEAR ON/OFF
```

Parameter	Description
ON	The label gap will stop at the tear off position after print.
OFF	The label gap will NOT stop at the tear off position after print. The beginning of label will be aligned to print head.

Example

```
REM ***TEAR FUNCTION ON***
SIZE 3,3
GAP 0.08,0
DENSITY 8
SPEED 4
DIRECTION 0
REFERENCE 0,0
SET PEEL OFF
SET TEAR ON
CLS
TEXT 50,100,"3",0,1,1,"TEAR FUNCTION TEST"
PRINT 1
```

See Also

SET PEEL

SET HEAD

Description

This setting is used to enable/disable head open sensor. If head open sensor is closed then when printer head is opened there isn’t any message returned. This setting will be saved in printer memory.

Syntax

```
SET HEAD ON /OFF
```

Parameter	**Description**
ON	Turn on the “HEAD OPEN” sensor
OFF	Turn off the “HEAD OPEN” sensor

Example

```
SET HEAD ON
SET HEAD OFF
```

SET COM1

Description

This setting defines communication parameters for printer serial port.

Syntax

```
SET COM1 baud, parity, data, stop
```

Parameter	**Description**
baud	Baud rate, available baud rates are as listed : 24: 2400 bps 48: 4800 bps 96: 9600 bps 19: 19200 bps
Parity	Parity check N: None parity check E: Even parity check O: Odd parity check
data	Data bit 8: 8 bits data 7: 7 bits data
stop	Stop bit 1: 1 stop bit 2: 2 stop bits

Example

The parallel port is used to setup the printer serial port in this example by MS-DOS mode. C:\>COPY CON LPT1<ENTER>

```
SET COM1 19,N,8,1<ENTER>
<CTRL><Z><ENTER>
C:\>
```

Note: <ENTER> stands for PC keyboard “ENTER” key.
<CTRL><Z> means to hold PC keyboard “CTRL” key then press PC keyboard <Z> key.

SET PRINTKEY

Description

This command will print one label and feed label gap to tear bar position for tearing away. Press FEED button to print the next label or batch of labels. If label content includes serial text or barcode, it will change the serial number accordingly. This setting will be saved in printer memory.

Syntax

SET PRINTEKY OFF/ON/AUTO/<num>

Parameter	Description
OFF	Disable this function
ON	Enable this function
AUTO	Enable this function
<num>	Numbers of labels will be printed if FEED button is pressed.

Example

Execute:

```
SIZE 3,2.5
GAP 0.12,0
SET PRINTKEY ON
SET COUNTER @0 1
@0="0001"
CLS
TEXT 10,10,"5",0,1,1,@0
PRINT 1
```

Execute:

Syntax	Receive “PRINT m”	Print Out

SET PRINTKEY ON or
SET PRINTKEY AUTO
	1.) PRINT 2	Label 1~2

	2.) Press FEED key	Label 3~4

Syntax	Receive “PRINT m,n”	Print Out

SET PRINTKEY ON or
SET PRINTKEY AUTO
	1.) PRINT 1,2	Label 1, Label 1

	2.) Press FEED key	Label 2, Label 2

Syntax	Receive “PRINT -1,n”	Print Out

SET PRINTKEY ON or
SET PRINTKEY AUTO
	1.) PRINT -1,2	Label 1, Label 1

	2.) Press FEED key	Label 1, Label 1

Syntax	Receive “PRINT m”	Print Out
SET PRINTKEY 5	1.) PRINT 2	Label 1~2
	2.) Press FEED key	Label 3~7

Syntax	Receive “PRINT m,n”	Print Out
SET PRINTKEY 5	1.) PRINT 1,2	Label 1, Label 1
	2.) Press FEED key	Label 2~6

Syntax	Receive “PRINT -1,n”	Print Out
SET PRINTKEY 5	1.) PRINT -1,2	Label 1, Label 1
	2.) Press FEED key	Label 1, Label 1

SET REPRINT

Description

This command will disable/enable reprint the label when the “no paper” or “no ribbon” or “carriage open” error is occurred.

Syntax

```
SET REPRINT OFF/ON
```

Parameter	**Description**
OFF	Disable this function
ON	Enable this function

Example

```
SET REPRINT ON
```

PEEL

Description

This command is used to obtain status of the peel-off sensor. Its attribute is read only.

Syntax

```
PEEL
```

Parameter	**Description**
0	Paper is not on top of peel sensor
1	Paper is on top of peel sensor

Example

```
DOWNLOAD “DEMO19.BAS”
SIZE 4,4
GAP 0,0
DENSITY 8
SPEED 3
DIRECTION 0
REFERENCE 0,0
SET PEEL OFF
SET LED1 OFF
CLS
IF PEEL=1 THEN LED1=1
EOP
```

KEY1, KEY2

Description

This command is used to read the status of KEY1 ,KEY2 .

Syntax

```
KEYm=n
```

Key	Return Value
KEY1 (FEED)	0: released 1: pressed
KEY2 (PAUSE)	0: released 1: pressed

Example

```
DOWNLOAD "DEMO.BAS"
SIZE 3,1
GAP 0,0
SPEED 4
DENSITY 8
DIRECTION 1
REFERENCE 0,0
SET KEY1 OFF
:START
IF KEY1=1 THEN
    CLS
    TEXT 100,10,"3",0,1,1,"KEY FUNCTION TEST"
    PRINT 1,1
GOTO START
EOP

DEMO
```

Printer Global Variables

@LABEL

Description

This variable is used to count how many pieces of labels have been printed. It can’t be initialized if the printer is reset. It will be memorized if the printer power is turned off.

Syntax

Write attribute: @LABEL=n   or @LABEL=”n”
Read attribute: A=LABEL or A$=STR$(LABEL)

Parameter	Description
n	Number of labels printed. 0<=n<=999999999

Example

```
DOWNLOAD "DEMO.BAS"
SIZE 3,2.5
GAP 2 mm,0
SPEED 6
DENSITY 12
CLS
TEXT 10,50,"3",0,1,1,@LABEL
TEXT 10,100,"3",0,1,1,"@LABEL="+STR$(LABEL)
TEXT 10,150,"3",0,1,1,"*****Statement 1*****"
   IF LABEL>1000 THEN
      TEXT 10,200,"3",0,1,1,"LABEL>1000"
   ELSE
      TEXT 10,200,"3",0,1,1,"LABEL<1000"
   ENDIF
TEXT 10,250,"3",0,1,1,"*****Statement 1*****"
   A=LABEL
   IF A>1000 THEN
        TEXT 10,300,"3",0,1,1,"A>1000"
   ELSE
       TEXT 10,300,"3",0,1,1,"A<1000"
   ENDIF
TEXT 10,350,"3",0,1,1,"*****Statement 3*****"
   A$=STR$(LABEL)
   IF VAL(A$)>1000 THEN
      TEXT 10,400,"3",0,1,1,"VAL(A$)>1000"
   ELSE
      TEXT 10,400,"3",0,1,1,"VAL(A$)<1000"
   ENDIF
PRINT 1,1
EOP
```