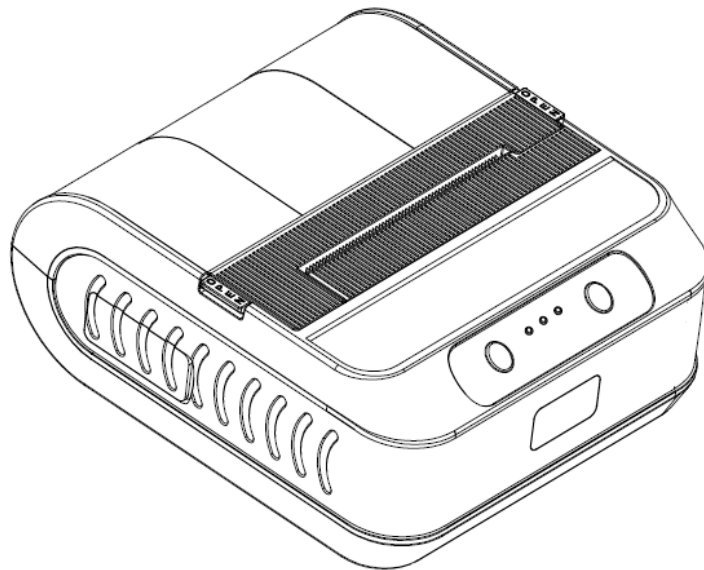


58mm Portable Dot matrix Printer PDM-02

Technical Manual



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一、 Instruction

1.1 Instruction List

| | | |
|------------|--------------------------------------------------------------------|-----------------------------------------------|
| LF | Printing and paper feed | Instructions of Print and paper feed |
| CR | Enter | |
| ESC J | Printing and paper feed N dots | |
| ESC d | Printing and paper feed N lines | |
| | | |
| ESC 3 | Set the line spacing for N points | Print setup instructions |
| ESC 2 | Set the line spacing for default | |
| ESC \$ | Set the print position | |
| GS L nL nH | Set the left Quantity of blank | |
| ESC ! | Set the character print mode | |
| GS ! n | Set the character size | |
| GS B n | Set, remove the white print | |
| ESC - n | Set, remove the underline | |
| ESC V n | Set, remove 90 ° rotation printing | |
| ESC a | Set the print alignment | |
| FS & | Set the Chinese character pattern | |
| FS . | Cancel the Chinese character pattern | |
| | | |
| ESC % n | Choice, cancel the user-defined character set | |
| ESC & | Define the user custom character set | |
| ESC ? n | Cancel the user-defined character | |
| ESC R n | Choose international character sets | |
| ESC t n | Select the character code page | |
| ESC * | Graphics vertical modulus data filling | Graphics printed instructions |
| GS v 0 | Image level take modulus according to print | |
| GS * | Define the bitmap | |
| GS / m | Printed under the bitmap | |
| FS q | Define the NV bitmap | |
| FS p n m | Print NV bitmap | |
| HT | Horizontal tab | TAB order |
| ESC D | Set up horizontal TAB | |
| | | |
| GS H | Set a dimensional barcode readable characters (HRI) print position | One dimensional barcode printing instructions |

| | | |
|-----------|----------------------------------|--------------------------------|
| GS h | Set a dimensional barcode height | |
| GS w | Set a dimensional barcode width | |
| GS k | Print one dimension code | |
| GS k | Print the qr code | Qr code printed instructions |
| | | |
| | Print the line segment | Curve printing the instruction |
| GS r n | transfer state | Status inquiry instruction |
| DLE EOT n | Real-time transmission state | |
| ESC @ | Initialization printer | Other instruction |
| DC2 T | Print self-test page | |
| | | |
| | | |

1.2 Detail instruction

① Printing and paper feed instruction

Printing and paper feed

| | |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Printing and paper feed |
| Command Code | ASCII : LF decimal : 10 hexadecimal : 0A |
| Functional description | Will be printed in the cache contents of print, and then based on the current line spacing is set into the paper a line, and adjust the print position to the next line starting position |
| Parameter range | not |
| default | not |
| Support model | all |
| attention | not |
| Use example | not |

Enter

| | |
|--------------|------------------------------------------------|
| Command Name | Enter |
| Command code | ASCII : CR decimal : 13 hexadecimal : 0D |

| | |
|------------------------|--------------------------------------------------------------------------------------------------------------|
| Functional description | Print position adjustment to starting position, the bank is not a newline |
| Parameter range | not |
| default | not |
| Support model | All |
| attention | After return instruction, the new print data with bitwise "or" cover to print the original data in the cache |
| Use example | not |

Printing and paper feed N dots

| | |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Printing and paper feed N dots |
| Command Code | ASCII : ESC J n decimal : 27 74 n Hexadecimal : 1B 4A n |
| Functional description | Will be printed in the cache contents of print paper n points |
| Parameter range | $0 \leq n \leq 255$ |
| default | not |
| Support model | All |
| attention | When printing the cache is empty, only feed n points After the instruction execution, print position moves to the next line of the starting position |
| Use example | 1b 40 30 31 32 1b 4a 10 |


Printing and paper feed N lines

| | |
|------------------------|----------------------------------------------------------------|
| Command Name | Printing and paper feed N lines |
| Command Code | ASCII : ESC d n Decimal : 27 100 n Hexadecimal : 1B 64 n |
| Functional description | Will be printed in the cache contents of print paper n line |
| Parameter range | $0 \leq n \leq 255$ |
| default | not |

| | |
|---------------|----------------------------------------------------------------------|
| Support model | All |
| attention | The command to set the print starting position is the starting point |
| Use example | 1b 40 30 31 32 1b 64 01 |

②Print setup instructions

Set the line spacing for n points

| | |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Set the line spacing for n points |
| Command Code | ASCII : ESC 3 n Decimal : 27 51 n Hexadecimal : 1B 33 n |
| Functional description | Set the line spacing for n points |
| Parameter range | 0 ≤ n ≤ 255 |
| default | n = 33 |
| Support model | All |
| attention | <p>Line spacing indicated as follows:</p>  <p>If set the line spacing is less than the maximum character height in a line, so the bank line spacing is equal to the maximum character level If the ESC 2, ESC @, reset the printer, printer, power line spacing restore to default values</p> |
| Use example | 1b 40 1b 33 30 30 31 32 0d 0a 30 31 32 0d 0a 1b 32 30 31 32 0d 0a 30 31 32 0d 0a |

Set default for line spacing

| | |
|--------------|----------------------------------------|
| Command Name | Set default for line spacing |
| Command | ASCII : ESC 2 |
| Code | Decimal : 27 50 Hexadecimal : 1B 32 |

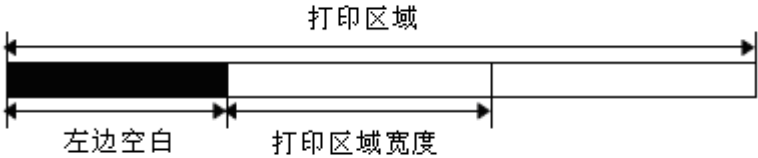
| | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Functional description | Set the line spacing to the default of 33 points |
| Parameter range | not |
| default | not |
| Support model | All |
| attention | Line spacing indicated detailed look at the ESC 3 instructions If set the line spacing is less than the maximum character height in a line, so the bank line spacing is equal to the maximum character level You can use the ESC 3 custom line spacing |
| Use example | Not |

Set the print position

| | |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Set the print position |
| Command Code | ASCII : ESC \$ nL nH Decimal : 27 36 nL nH Hexadecimal : 1B 24 nL nH |
| Functional description | Adjust the print position to print starting position (nL nH + x 256) points |
| Parameter range | $0 \leq nL \leq 255$, $0 \leq nH \leq 255$ |
| default | not |
| Support model | All |
| attention | This directive applies only to the bank, after a newline print position is reset to print starting position Beyond print is moved to the next line printing |
| Use example | 1b 40 1b 24 08 00 30 31 32 0d 0a 30 31 32 0d 0a |

Set the left margin

| | |
|------------------------|--------------------------------------------------------------------------|
| Command Name | Set the left margin |
| Command Code | ASCII : GS L nL nH Decimal : 29 76 nL nH Hexadecimal : 1D 4C nL nH |
| Functional description | To set the left margin (nL nH + x 256) |

| | |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Parameter range | $0 \leq nL \leq 255, 0 \leq nH \leq 255$ |
| default | not |
| Support model | All |
| attention | <p>The command is valid only in a line of the starting position of the handle. Legend schematic is as follows:</p>  <p>If set outside the printable area, use the maximum printing unit</p> |
| Use example | <pre>1b 40 1d 4c 08 00 30 31 32 0d 0a 30 31 32 0d 0a</pre> |

Set the character print mode

| | | | | |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------|-----------------|
| Command Name | Set the character print mode | | | |
| Command Code | ASCII : ESC ! n Decimal : 27 33 n Hexadecimal : 1B 21 n | | | |
| Functional description | Set the character print mode (fonts, white, high horse, bold, times and times width, and the underline), the parameter n ,Defines as follows: | | | |
| | position | function | value | |
| | | | 0 | 1 |
| | 0 | font | normal | Shall character |
| | 1 | undefined | | |
| | 2 | undefined | | |
| | 3 | bold | cancel | setting |
| | 4 | double high | cancel | setting |
| | 5 | double width | cancel | setting |
| 6 | undefined | | | |
| 7 | underline | cancel | setting | |
| Parameter range | not | | | |
| default | n = 0 | | | |

| | |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Support model | All |
| attention | The instruction for Chinese fonts and foreign fonts are effective When the ESC @, printer after reset, power outages, the setting of this directive |
| Use example | 1B 40 1B 21 01 30 31 32 0D 0A 1B 40 1B 21 02 30 31 32 0D 0A 1B 40 1B 21 04 30 31 32 0D 0A 1B 40 1B 21 08 30 31 32 0D 0A 1B 40 1B 21 10 30 31 32 0D 0A 1B 40 1B 21 20 30 31 32 0D 0A 1B 40 1B 21 40 30 31 32 0D 0A 1B 40 1B 21 80 30 31 32 0D 0A |

Set the character size

| Command Name | Set the character size | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|-------|-----------|----|-----------|-----------|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|--------|-----------|----|-----------|-----------|----|-----------|----|----|---|----|----|---|----|----|---|----|----|---|----|----|---|----|---|---|
| Command Code | ASCII : GS! n Decimal : 29 33 n Hexadecimal : 1d 21 n | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Functional description | <p>Set the character size for 1-8 times as wide, 1-8 times higher Defines as follows : Use 0 to 3 set character height 4 to 7 bits set character width as shown below</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> <p>table 1 Character width setting</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Hexadecimal</th> <th>Decimal</th> <th>Width</th> </tr> </thead> <tbody> <tr><td>00</td><td>0</td><td>1(normal)</td></tr> <tr><td>10</td><td>16</td><td>2(double)</td></tr> <tr><td>20</td><td>32</td><td>3</td></tr> <tr><td>30</td><td>48</td><td>4</td></tr> <tr><td>40</td><td>64</td><td>5</td></tr> <tr><td>50</td><td>80</td><td>6</td></tr> <tr><td>60</td><td>96</td><td>7</td></tr> <tr><td>70</td><td>112</td><td>8</td></tr> </tbody> </table> </td> <td style="width: 50%; border: none; vertical-align: top;"> <p>table 2 Character height setting</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Hexadecimal</th> <th>Decimal</th> <th>Height</th> </tr> </thead> <tbody> <tr><td>00</td><td>0</td><td>1(normal)</td></tr> <tr><td>01</td><td>1</td><td>2(double)</td></tr> <tr><td>02</td><td>2</td><td>3</td></tr> <tr><td>03</td><td>3</td><td>4</td></tr> <tr><td>04</td><td>4</td><td>5</td></tr> <tr><td>05</td><td>5</td><td>6</td></tr> <tr><td>06</td><td>6</td><td>7</td></tr> <tr><td>07</td><td>7</td><td>8</td></tr> </tbody> </table> </td> </tr> </table> | <p>table 1 Character width setting</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Hexadecimal</th> <th>Decimal</th> <th>Width</th> </tr> </thead> <tbody> <tr><td>00</td><td>0</td><td>1(normal)</td></tr> <tr><td>10</td><td>16</td><td>2(double)</td></tr> <tr><td>20</td><td>32</td><td>3</td></tr> <tr><td>30</td><td>48</td><td>4</td></tr> <tr><td>40</td><td>64</td><td>5</td></tr> <tr><td>50</td><td>80</td><td>6</td></tr> <tr><td>60</td><td>96</td><td>7</td></tr> <tr><td>70</td><td>112</td><td>8</td></tr> </tbody> </table> | Hexadecimal | Decimal | Width | 00 | 0 | 1(normal) | 10 | 16 | 2(double) | 20 | 32 | 3 | 30 | 48 | 4 | 40 | 64 | 5 | 50 | 80 | 6 | 60 | 96 | 7 | 70 | 112 | 8 | <p>table 2 Character height setting</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Hexadecimal</th> <th>Decimal</th> <th>Height</th> </tr> </thead> <tbody> <tr><td>00</td><td>0</td><td>1(normal)</td></tr> <tr><td>01</td><td>1</td><td>2(double)</td></tr> <tr><td>02</td><td>2</td><td>3</td></tr> <tr><td>03</td><td>3</td><td>4</td></tr> <tr><td>04</td><td>4</td><td>5</td></tr> <tr><td>05</td><td>5</td><td>6</td></tr> <tr><td>06</td><td>6</td><td>7</td></tr> <tr><td>07</td><td>7</td><td>8</td></tr> </tbody> </table> | Hexadecimal | Decimal | Height | 00 | 0 | 1(normal) | 01 | 1 | 2(double) | 02 | 2 | 3 | 03 | 3 | 4 | 04 | 4 | 5 | 05 | 5 | 6 | 06 | 6 | 7 | 07 | 7 | 8 |
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| Hexadecimal | Decimal | Width | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 00 | 0 | 1(normal) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 16 | 2(double) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | 32 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 48 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | 64 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | 80 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 96 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 70 | 112 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hexadecimal | Decimal | Height | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 00 | 0 | 1(normal) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 01 | 1 | 2(double) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 02 | 2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 03 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04 | 4 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05 | 5 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06 | 6 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07 | 7 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parameter | not | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| range | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| default | n = 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Support model | All | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| attention | <p>This directive except the HRI characters of Chinese fonts and foreign fonts are effective</p> <p>When the ESC @, printer after reset, power outages, the setting of this directive</p> |
| Use example | <pre>1b 40 1d 21 11 30 31 32 0d 0a 30 31 32 0d 0a</pre> |

Set, remove the white print

| | |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Set, remove the white print |
| Command Code | <p>ASCII : GS B n</p> <p>Decimal : 29 66 n</p> <p>Hexadecimal : 1d 42 n</p> |
| Functional description | <p>To set or remove the white print mode.</p> <p>When n the least significant bit is 0, the white mode off.</p> <p>When n the least significant bit is 1, the white open mode.</p> |
| Parameter range | not |
| default | n = 0 |
| Support model | All |
| attention | <p>Only n lowest effective.</p> <p>The command to the built-in character and user-defined character are effective. When the white model is opened, it also effective to ESC SP set of blank.</p> <p>This command does not affect the bitmap, user-defined bitmap, bar code, HRI characters, and space by HT skip, ESC \$.</p> <p>This command does not affect the line spacing.</p> <p>Reverse mode takes precedence over the underline. When set against the white model, even the underline mode open are prohibited from (but not cancelled).</p> <p>When the ESC @, printer after reset, power outages, the setting of this directive.</p> |
| Use example | <pre>1b 40 1d 42 01 30 31 32 0d 0a 30 31 32 0d 0a</pre> |

Set, remove the underline

| | | | |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--|
| Command Name | Set, remove the underline | | |
| Command Code | ASCII : ESC - n Decimal : 27 45 n Hexadecimal : 1B 2D n | | |
| Functional description | Based on the value of n, set/remove the underline mode: | | |
| | n | function | |
| | 0, 48 | Remove the underline mode | |
| | 1, 49 | Set the underline mode (1 point of coarse) | |
| | 2, 50 | Set the underline mode (2 point of coarse) | |
| Parameter range | $0 \leq n \leq 2, 48 \leq n \leq 50$ | | |
| default | n = 0 | | |
| Support model | All | | |
| attention | <p>Printers can give all characters underscore (including character to the right of the interval), except by HT set blank.</p> <p>The printer cannot give clockwise rotate 90 ° characters and the white print underscore characters.</p> <p>When by setting the value of n to 0 or 48 to remove the underline mode, the following data is not be printed underline, and remove the underline mode before setting the underlined roughness do not change. By default the underline roughness is 1 point.</p> <p>Change the character size does not affect the current underlined roughness.</p> <p>Use the ESC! Also can be set or remove the underline mode. Note, however, the last received command is valid.</p> | | |
| Use example | <pre>1b 40 1b 2d 01 30 31 32 0d 0a 1b 40 1b 2d 02 30 31 32 0d 0a 1b 40 1b 2d 00 30 31 32 0d 0a</pre> | | |

Set up the, remove clockwise rotate 90 ° to print

| | | | |
|--------------|---------------------------------------------------------------|--|--|
| Command Name | Set up the, remove clockwise rotate 90 ° to print | | |
| Command Code | ASCII : ESC V n Decimal : 27 86 n Hexadecimal : 1B 56 n | | |
| Functional | Set or remove 90 ° rotation printing. | | |

| | |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| description | When n equals 0 or 48, lifting 90 ° rotation printing. When n equals 1 or 49, set up 90 ° rotation printing. |
| Parameter range | $0 \leq n \leq 1, 48 \leq n \leq 49$ |
| default | n = 0 |
| Support model | All |
| attention | When set up the underline mode, in the case of characters clockwise rotate 90 ⁰ , the printer is not underlined. In clockwise rotate 90 ⁰ mode, times and times higher command wide direction and general mode of the characters x magnification high command wide zoom in the opposite direction of the characters. When the ESC @, printer after reset, power outages, the setting of this directive |
| Use example | 1b 40 1b 56 01 30 31 32 0d 0a 30 31 32 0d 0a |

Set the print alignment

| | |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Set the print alignment (left, center, right) |
| Command Code | ASCII : ESC a n Decimal : 27 97 n Hexadecimal : 1B 61 n |
| Functional description | To align all the data in a line, the value of n meaning is as follows: n mode 0, 48 left 1, 49 middle 2, 50 right |
| Parameter range | $0 \leq n \leq 2$ 或 $48 \leq n \leq 50$ |
| default | n = 0 |
| Support model | All |
| attention | When the ESC @, printer after reset, power outages, the setting of this directive |
| Use example | 1B 40 1B 61 02 30 31 32 0D 0A 1B 40 1B 61 01 30 31 32 0D 0A 1B 40 1B 61 00 30 31 32 0D 0A |

Set the Chinese character pattern

| | |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Set the Chinese character pattern |
| Command Code | ASCII : FS & Decimal : 28 38 Hexadecimal : 1C 26 |
| Functional description | Select Chinese pattern |
| Parameter range | not |
| default | not |
| Support model | All |
| attention | Choosing model of Chinese characters, the printer handle all Chinese characters code, every time two bytes. In the first byte, and the second byte order processing code of Chinese characters. |
| Use example | 1b 40 1C 26 B0 AE C9 CF D7 D4 BC BA 0d 0a 1C 2E B0 AE C9 CF D7 D4 BC BA 0d 0a |

Cancel the Chinese character pattern

| | |
|------------------------|---------------------------------------------------------------------------------------------------------------|
| Command Name | Cancel the Chinese character pattern |
| Command Code | ASCII : FS . Decimal : 28 46 Hexadecimal : 1C 2E |
| Functional description | Cancel the Chinese character pattern |
| Parameter range | not |
| default | not |
| Support model | All |
| attention | Not choosing model of Chinese characters, all characters are as ASCII code, a character at a time processing. |
| Use example | not |

Choose or cancel the user custom character set

| | |
|--------------|------------------------------------------------|
| Command Name | Choose or cancel the user custom character set |
|--------------|------------------------------------------------|

| | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command Code | ASCII : ESC % n Decimal : 27 37 n Hexadecimal : 1B 25 n |
| Functional description | Choose or cancel the user custom character set When n the least significant bit is 0, cancel the user-defined character set. When n the least significant bit is 1, select user-defined character set. |
| Parameter range | $0 \leq n \leq 255$ |
| default | 0 |
| Support model | All |
| attention | When cancel the user-defined character set, automatically choose the internal character set. |
| Use example | not |

Define the user custom character set

| | |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Define the user custom character set |
| Command Code | ASCII : ESC & y c1 c2 [x1 d1 ... d(yx1)] ... [xk d1 ... d(yxk)] Decimal : 27 38 y c1 c2 [x1 d1 ... d(yx1)] ... [xk d1 ... d(yxk)] Hexadecimal : 1B 26 y c1 c2 [x1 d1...d(y x1)]...[xk d1...d(yxk)] |
| Functional description | Define the user custom characters. Y bytes specifies the vertical direction. C1 specified starting character encoding,C2 end of the specified character encoding. Xk specified horizontal points. |
| Parameter range | The range of x, y and the corresponding internal fonts If choose the 6 * 12 font, $y = 2$, $0 \leq x \leq 6$ If choose the 12*24 font , $y = 3$, $0 \leq x \leq 12$ $32 \leq c1 \leq c2 \leq 126$ $0 \leq d1 \dots d(y*xk) \leq 255$ |
| default | not |
| Support model | All |
| attention | Can define the scope of the character encoding: from < > 20 H to < 7 > e H ASCII (95 characters). Can define multiple continuous character encoding of the characters. When only need one character, make $c1 = c2$. D is point data of the characters. Point pattern is horizontal direction from the start on the left. On the right side of the remaining points for blank. Define user custom character data is $(y * x)$ bytes. |

Set to print the corresponding to 1 or not print points corresponding to 0.

The command for each font definition different user-defined character pattern. Use the ESC! Set the font.

The user-defined character and downlink bitmap is defined at the same time. When the command is executed, the bitmap is cleared.

In the following situations user-defined character is clear:

Perform ESC @.

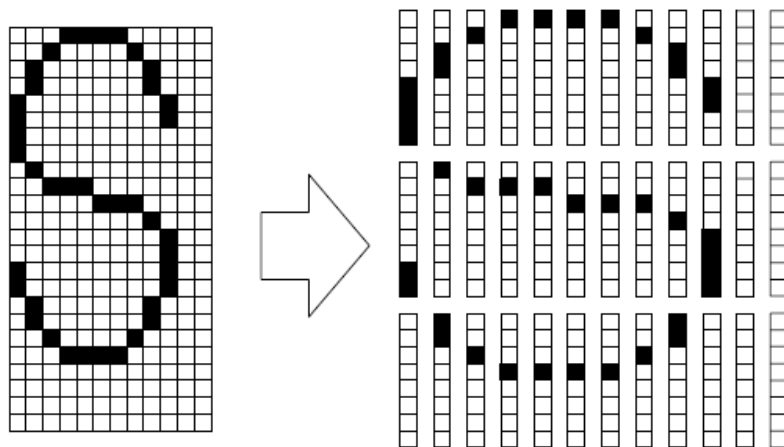
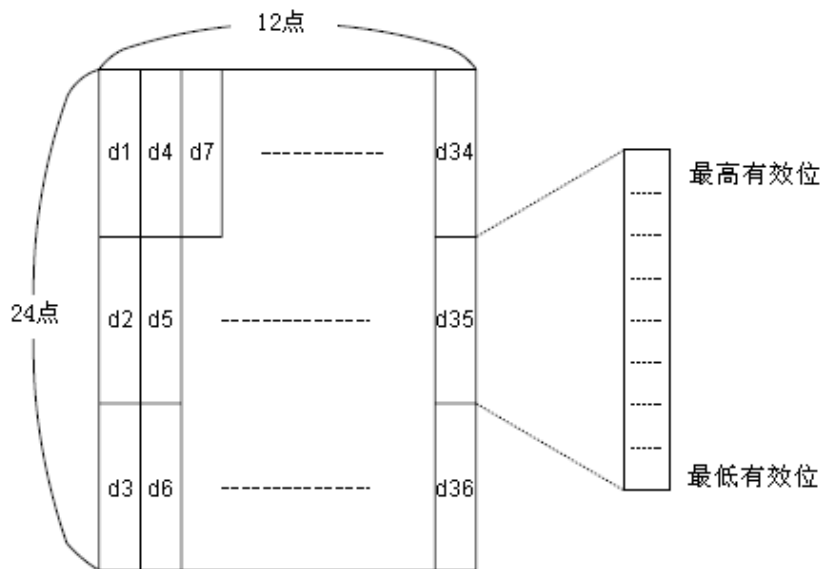
Perform GS *.

Perform ESC ?

Reset the printer or shut off the power.

illustration :

When set the font A (12 24).



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

| | |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use example | <p>①y = 2 1B 40 1b 26 02 20 20 06 FF FF FF FF FF FF FF FF FF FF 1b 25 01 20 20 0D 0A 1b 3f 20 30 20 30 20 0d 0a</p> <p>②y = 3 1B 40 1b 26 03 20 20 06 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 1b 25 01 20 20 0D 0A 1b 3f 20 30 20 30 20 0d 0a</p> |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Cancel the user-defined character

| | |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Cancel the user-defined character |
| Command Code | ASCII : ESC ? n Decimal : 27 63 n Hexadecimal : 1B 3F n |
| Functional description | Cancel code n specified by the user custom characters |
| Parameter range | $32 \leq n \leq 126$ |
| default | not |
| Support model | All |
| attention | <p>The command to terminate for character encoding defined style, character encoding specified by n. After the user-defined character was cancelled, to internal character pattern print accordingly.</p> <p>In ESC! Choose the font, the command to remove the definition for a given coding style.If a user-defined character is not defined, the printer to ignore this command.</p> |
| Use example | not |

Choose international character sets

| | |
|--------------|-------------------------------------|
| Command Name | Choose international character sets |
| Command | ASCII : ESC R n |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------|---|-----|---|--------|---|---------|---|---------|---|-----------|---|--------|---|-------|---|---------|---|-------|---|--------|----|------------|----|----------|----|---------------|----|-------|----|----------|----|---------|
| Code | Decimal : 27 82 n Hexadecimal : 1B 52 n | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Functional description | According to the following table to choose n the value of the international character sets: <table border="0"> <tr> <td>n</td> <td>Character sets</td> </tr> <tr> <td>0</td> <td>USA</td> </tr> <tr> <td>1</td> <td>France</td> </tr> <tr> <td>2</td> <td>Germany</td> </tr> <tr> <td>3</td> <td>England</td> </tr> <tr> <td>4</td> <td>Denmark I</td> </tr> <tr> <td>5</td> <td>Sweden</td> </tr> <tr> <td>6</td> <td>Italy</td> </tr> <tr> <td>7</td> <td>Spain I</td> </tr> <tr> <td>8</td> <td>Japan</td> </tr> <tr> <td>9</td> <td>Norway</td> </tr> <tr> <td>10</td> <td>Denmark II</td> </tr> <tr> <td>11</td> <td>Spain II</td> </tr> <tr> <td>12</td> <td>Latin America</td> </tr> <tr> <td>13</td> <td>Korea</td> </tr> <tr> <td>14</td> <td>Slovenia</td> </tr> <tr> <td>15</td> <td>Chinese</td> </tr> </table> | n | Character sets | 0 | USA | 1 | France | 2 | Germany | 3 | England | 4 | Denmark I | 5 | Sweden | 6 | Italy | 7 | Spain I | 8 | Japan | 9 | Norway | 10 | Denmark II | 11 | Spain II | 12 | Latin America | 13 | Korea | 14 | Slovenia | 15 | Chinese |
| n | Character sets | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | USA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | France | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Germany | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | England | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Denmark I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Sweden | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Italy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Spain I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Japan | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Norway | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | Denmark II | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | Spain II | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | Latin America | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | Korea | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | Slovenia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | Chinese | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parameter range | $0 \leq n \leq 15$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| default | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Support model | All | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| attention | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Use example | 1B 40 1B 52 00 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F 40 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 55 56 57 58 59 60 6A 6B 6C 6D 6E 6F 70 71 72 73 74 75 76 78 79 7A 7B 7C 7D 7E 0D 0A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Select the character code page

| | |
|------------------------|---------------------------------------------------------------------------------------------|
| Command Name | Select the character code page |
| Command code | ASCII : ESC t n Decimal : 27 116 n Hexadecimal : 1B 74 n |
| Functional description | Select from n character code pages N Code pages 0 CP437 [USA , the European standard] |

| | |
|----|-------------------------------------------|
| 1 | KataKana [katakana] |
| 2 | CP850 [multi-language] |
| 3 | CP860 [portugal] |
| 4 | CP863 [Canada - French] |
| 5 | CP865 [Nor-Europe] |
| 6 | WCP1251 [Slavic] |
| 7 | CP866 Slavic 2 |
| 8 | MIK[Slavic/Bulgaria] |
| 9 | CP755 [Eastern Europe, Latvia 2] |
| 10 | [Iran, Persia] |
| 11 | reserve |
| 12 | reserve |
| 13 | reserve |
| 14 | reserve |
| 15 | CP862 [Hebrew] |
| 16 | WCP1252 [Latin 1] |
| 17 | WCP1253 [Greece] |
| 18 | CP852 [Latin 2] |
| 19 | CP858 [Multiple language Latin 1 + o] |
| 20 | Iran II[Farsi] |
| 21 | Latvia |
| 22 | CP864 [Arabic] |
| 23 | ISO-8859-1 [Western Europe] |
| 24 | CP737 [Greece] |
| 25 | WCP1257 [the Baltic sea] |
| 26 | Thai |
| 27 | CP720[Arabic] |
| 28 | CP855 |
| 29 | CP857[Turkish] |
| 30 | WCP1250[middle Europe] |
| 31 | CP775 |
| 32 | WCP1254[Turkish] |
| 33 | WCP1255[Hebrew] |
| 34 | WCP1256[Arabic] |
| 35 | WCP1258[Vietnamese] |
| 36 | ISO-8859-2[Latin 2] |
| 37 | ISO-8859-3[Latin 3] |
| 38 | ISO-8859-4[the Baltic |

| | |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | sea] 39 ISO-8859-5[Slavic] 40 ISO-8859-6[Arabic] 41 ISO-8859-7[Greek] 42 ISO-8859-8[Hebrew] 43 ISO-8859-9[Turkish] 44 ISO-8859-15[Latin 9] 45 [Thai 2] 46 CP856 47 Cp874 255 GBK2312 |
| Parameter range | $0 \leq n \leq 255$ |
| default | 0 |
| Support model | All |
| attention | |
| Use example | 1B 40 1C 2E 1B 74 00 80 81 82 83 84 85 86 87 88 89 8A 8B 8C 8D 8E 8F 90 91 92 93 94 95 96 97 98 9A 9B 9C 9D 9E 9F A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 AA AB AC AD AE AF B0 B1 B2 B3 B4 B5 B6 B7 B8 B9 BA BB BC BD BE BF C0 C1 C2 C3 C4 C5 C6 C7 C8 C9 CA CB CC CD CE CF D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 DA DB DC DD DE DF E0 E1 E2 E3 E4 E5 E6 E7 E8 E9 EA EB EC ED EE EF F0 F1 F2 F3 F4 F5 F6 F7 F8 F9 FA FB FC FD FE FF 0D 0A |

③ TAB order

Horizontal TAB

| | |
|------------------------|-----------------------------------------------|
| Command Name | Horizontal TAB |
| Command Code | ASCII : HT Decimal : 9 Hexadecimal : 09 |
| Functional description | Move the print position to the next TAB |
| Parameter range | not |
| default | not |

| | |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Support model | All |
| attention | TAB position are set in the ESC D If the TAB position is not set no horizontal TAB position (the default), the instruction will be treated as LF instructions If the TAB position beyond the print area, coordinates will be shifted to the next line of the starting position of the (depending on the data bank is full, and printing Newline) |
| Use example | not |

Settings TAB position

| | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Settings TAB position |
| Command Code | ASCII : ESC D [d]k NUL Decimal : 27 68 [d]k 0 Hexadecimal : 1B 44 [d]k 00 |
| Functional description | Settings TAB position, parameter meaning is as follows: D1...Dk: horizontal TAB position, to 8 PM, a NULL terminator |
| Parameter range | XX58 : $1 \leq d \leq 46$ ($d_1 < d_2 < \dots < d_k$, $1 \leq k \leq 16$) XX80 : $1 \leq d \leq 70$ ($d_1 < d_2 < \dots < d_k$, $1 \leq k \leq 16$) |
| default | [d]k = 0 No horizontal TAB position (the default) |
| Support model | All |
| attention | TAB position signal is as follows: |

| | |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <div style="text-align: center;"> <p>设置制表位置d1和d2</p> </div> <p>Maximum 16 TAB position setting Using this command will cancel the previous TAB position Settings K is used to signal, no transport Transmission [d] k when you meet the NULL as the end If the dk is less than or equal to dk - 1, as the end, the remaining data as a common data processing TAB position can be made of HT switch After the change the left margin, TAB position change at the same time When the ESC @, printer after reset, power outages, the setting of this directive</p> |
| Use example | 1B 44 04 06 08 0A 00 09 30 09 31 09 32 09 33 0D 0A |

④ One dimensional barcode printing instructions

Set the barcode readable characters (HRI) print position

| | |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Set the barcode readable characters (HRI) print position |
| Command Code | ASCII : GS H n Decimal : 29 72 n Hexadecimal : 1D 48 n |
| Functional description | Set the barcode readable characters (HRI) print position, n parameters meaning is as follows: n the print position 0 , 48 no print 1 , 49 above the barcode 2 , 50 below the barcode 3 , 51 above and below the barcode |
| Parameter range | $0 \leq n \leq 3$ 或 $48 \leq n \leq 51$ |
| default | n = 0 |
| Support model | All |
| attention | When the ESC @, printer after reset, power outages, the setting of this |

| | |
|-------------|-----------|
| | directive |
| Use example | not |

Set a dimensional barcode height

| | |
|------------------------|------------------------------------------------------------------------------------|
| Command Name | Set a dimensional barcode height |
| Command Code | ASCII : GS h n Decimal : 29 104 n Hexadecimal : 1D 68 n |
| Functional description | Set the height of the bar code to n points, the parameter n meaning is as follows: |
| Parameter range | $1 \leq n \leq 255$ |
| default | n = 64 |
| Support model | All |
| attention | When the ESC @, printer after reset, power outages, the setting of this directive |
| Use example | not |

Set a dimensional barcode width

| | |
|------------------------|----------------------------------------------------------------------|
| Command Name | Set a dimensional barcode width |
| Command Code | ASCII : GS w n Decimal : 29 119 n Hexadecimal : 1D 77 n |
| Functional description | Set the barcode unit to n points, parameter n meaning is as follows: |
| Parameter range | $1 \leq n \leq 6$ |

| | |
|---------------|-----------------------------------------------------------------------------------|
| default | n = 2 |
| Support model | All |
| attention | When the ESC @, printer after reset, power outages, the setting of this directive |
| Use example | not |

one-dimensional bar code Printing

| | | | | | | |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------|------------------------|-------------------------------------------------|------------------------------------------------|
| Command Name | | | | | | |
| Command Code | (A) ASCII : GS k m [d]k NUL Decimal : 29 107 m [d]k NUL Hexadecimal : 1D 6B m [d]k NUL (B) ASCII : GS k m n [d]k Decimal : 29 107 m n [d]k Hexadecimal : 1D 6B m n [d]k | | | | | |
| Functional description | Print a dimensional barcode, the parameters meaning is as follows: m is coding scheme N for encoding data length, (B) use only, the difference between the (A) and (B) the instruction is the end of the data segment with A NULL character (A), and (B) indicates the length of the data [d]k is code data K for the length of the bar code data, is used to signal and don't have to transfer The relationship between the parameters shown in the table below: (Instructions A) | | | | | |
| | m | Code system | Bar code data (SP said Spaces) | | | |
| | | | Data length | k | character set | Data (d) |
| | 0 | UPC-A | Fixed | k = 11 , 12 | 0~9 | 48≤d≤57 |
| | 1 | UPC-E | Fixed | 6≤k≤8 , k = 11 , 12 | 0~9 | 48≤d≤57 [当 k = 7,8,11,12 , d1 = 48] |
| | 2 | JAN13 (EAN13) | Fixed | k = 12 , 13 | 0~9 | 48≤d≤57 |
| | 3 | JAN8 (EAN8) | Fixed | k = 7 , 8 | 0~9 | 48≤d≤57 |
| | 4 | CODE39 | changeable | 1≤k | 0~9 , A~Z SP , \$, % , * , + , - , . , / | 48≤d≤57 , 65≤d≤90 , d = 32 ,36 ,37 , |

| | | | | | | |
|------------------|-----------------------------|--------------------------------|----------------------------------------|-------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | | | 42 , 43 , 45 , 46 , 47 |
| 5 | ITF (Interleaved 2 of 5) | changeable | $2 \leq k \leq 255$ (even number) | 0~9 | | $48 \leq d \leq 57$ |
| 6 | CODABAR (NW-7) | changeable | $1 \leq k$ | 0~9 , A~D , a~d \$, + , - , . , / , : | | $48 \leq d \leq 57$, $65 \leq d \leq 68$, $97 \leq d \leq 100$, d = 36 , 43 , 45 , 46 , 47 , 58 ($65 \leq d1 \leq 68$, $65 \leq dk \leq 68$, $97 \leq d1 \leq 100$, $97 \leq dk \leq 100$) |
| (Instructions B) | | | | | | |
| m | Code systems | Bar code data (SP said Spaces) | | | | |
| | | Data length | n | character set | Data (d) | |
| 65 | UPC-A | Fixed | n = 11 , 12 | 0~9 | | $48 \leq d \leq 57$ |
| 66 | UPC-E | Fixed | $6 \leq n \leq 8$, n = 11 , 12 | 0~9 | | $48 \leq d \leq 57$ [当 n = 7,8,11,12 , d1 = 48] |
| 67 | JAN13 (EAN13) | Fixed | n = 12 , 13 | 0~9 | | $48 \leq d \leq 57$ |
| 68 | JAN8 (EAN8) | Fixed | n = 7 , 8 | 0~9 | | $48 \leq d \leq 57$ |
| 69 | CODE39 | changeable | $1 \leq n$ | 0~9 , A~Z SP , \$, % , * , + , - , . , / | | $48 \leq d \leq 57$, $65 \leq d \leq 90$, d = 32 , 36 , 37 , 42 , 43 , 45 , 46 , 47 |
| 70 | ITF (Interleaved 2 of 5) | changeable | $2 \leq n \leq 255$ (even number) | 0~9 | | $48 \leq d \leq 57$ |
| 71 | CODABAR (NW-7) | changeable | $1 \leq n$ | 0~9 , A~D , a~d \$, + , - , . , / , : | | $48 \leq d \leq 57$, $65 \leq d \leq 68$, $97 \leq d \leq 100$, |

| | | | | | | |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|---------|-----------------------------|--------------------------------------------------------------------------------------------|
| | | | | | | d = 36 ,43 ,45 , 46 , 47 , 58 (65≤d1≤68 , 65≤dk≤68 , 97≤d1≤100 , 97≤dk≤100) |
| | 72 | CODE9 3 | cha nge able | 1≤n≤255 | 00H~7FH | 0≤d≤127 |
| | 73 | CODE1 28 | cha nge able | 1≤n≤255 | 00H~7FH C1H~C4H(FN C) | 0≤d≤127 d = 193 , 194,195,196 |
| | 74 | UCC/EA N128 | cha nge able | 1≤n≤255 | 00H~7FH C1H~C4H(FN C) | 0≤d≤127 d = 193 , 194,195,196 |
| Parameter range | (A) 0 ≤ m ≤ 6 (B) 65 ≤ m ≤ 74 | | | | | |
| default | not | | | | | |
| Support model | All | | | | | |
| attention | <p>If the area beyond can print bar code width, the printer does not perform the barcode printing, This instruction execution according to the need to feed, not affected by the ESC 2, 3 ESC line spacing also does not affect the line spacing Settings.</p> <p>This instruction is not affected by ESC!Character style Settings After the instruction execution, print position back to the starting location M parameter 0 ~ 6 (A) and (B) 65 ~ 71 to choose the same coding system, print effect is the same. M parameter 0 ~ 6 (A), bar code data ended with NULL. M parameters (B) 65 ~ 74, the bar code data to data length n. K is used to signal, do not need to transfer Print UPCA (m = 0 or 65), the need to pay attention to: Regardless of the input data length is 11 or 12, check digit automatically insert or error correction The starting character, middle separator, terminators automatically inserted Print UPCE (m = 1 or 66), the need to pay attention to: When the data length is 6, the system character (NSC) 0 automatically inserted When the data length is 7, 8, 11, and 12, the first system characters (NSC) d1 must be 0 Regardless of the input data length is 6, 7, 8, 11 or 12, check digit automatically insert or error correction</p> | | | | | |

Regardless of the input data length is 6, 7, 8, 11 or 12, barcode readable characters (HRI) show only 6, for the data does not include the system character (NSC) and the check code;
 To transmit data and print the data transformation relationship is as follows:

| 传输的数据 | | | | | | | | | | 打印的数据 | | | | | |
|-------|-----|-----|-----|-----|----|----|-----|-----|-----|-------|----|----|-----|-----|-----|
| d2 | d3 | d4 | d5 | d6 | d7 | d8 | d9 | d10 | d11 | d1 | d2 | d3 | d4 | d5 | d6 |
| 0~9 | 0~9 | 0 | 0 | 0 | - | - | 0~9 | 0~9 | 0~9 | d2 | d3 | d9 | d10 | d11 | 0 |
| 0~9 | 0~9 | 1 | 0 | 0 | - | - | 0~9 | 0~9 | 0~9 | d2 | d3 | d9 | d10 | d11 | 1 |
| 0~9 | 0~9 | 2 | 0 | 0 | - | - | 0~9 | 0~9 | 0~9 | d2 | d3 | d9 | d10 | d11 | 2 |
| 0~9 | 0~9 | 3~9 | 0 | 0 | - | - | - | 0~9 | 0~9 | d2 | d3 | d4 | d10 | d11 | 3 |
| 0~9 | 0~9 | 0~9 | 1~9 | 0 | - | - | - | - | 0~9 | d2 | d3 | d4 | d5 | d11 | 4 |
| 0~9 | 0~9 | 0~9 | 0~9 | 1~9 | - | - | - | - | 5~9 | d2 | d3 | d4 | d5 | d6 | d11 |

When d6 is 1 ~ 9, should guarantee the d7, d8, d9, d10 is 0, d11 is 5 ~ 9
 The starting character, terminators automatically inserted

Print EAN13 (m = 2 or 67), the need to pay attention to:
 Regardless of the length of the input data is 12 or 13, check digit automatically inserted or error correction
 The starting character, middle separator, terminators automatically inserted

Print EAN8 (m = 3 or 68), the need to pay attention to:
 Regardless of the input data length is 7 or 8, check digit automatically insert or error correction
 The starting character, middle separator, terminators automatically inserted

Print CODE39 (m = 4 or 69), the need to pay attention to:
 When d1 or not as the starting character/dn terminator "***", encoder automatically inserted into the "***"
 When the data center meet with "***", encoder as the terminator, the rest of the data as a common data processing;
 Check digit does not automatically calculate and add

Print ITF25 (m = 5 or 70), the need to pay attention to:
 Starting character and terminators automatically inserted
 Check digit does not automatically calculate and add

Print CODABAR (NW - 7) (m = 6 or 71), the need to pay attention to:
 Starting operator and the end will not automatically inserts, requires the

user to manually add, scope for "A" ~ "D" or "A" ~ "D"
 Check digit does not automatically calculate and add

Print CODE93 (m = 72), the need to pay attention to:
 Starting character and terminators automatically inserted
 Two check code automatic calculation and insert
 When set barcode readable characters (HRI) print, without any said start/end HRI characters
 When set (HRI) print barcode readable characters, control characters will be replaced with a space

Print CODE128 (m = 73), the need to pay attention to:
 Intelligent identification data coding system and realize the minimum length coding, without user set character set (including the starting character set) or switch character set
 Functional characters FNC1 ~ FNC4 using C1H ~ C4H input
 Check digit calculation and add automatically

When set (HRI) print barcode readable characters, control characters and FNC1 ~ FNC4 will use Spaces instead

Print EAN128 (m = 74), the need to pay attention to the basic structure is as follows:

| | | | | | | |
|----------------------------|------|-------------|---------------|-------------|-------------|----------|
| The starting character set | FNC1 | AI | data division | check bit A | check bit B | end mark |
| Auto Punch | | (d1...dk) | | | Auto Punch | |

Connection structure is as follows:

| | | | | | | | | | | |
|----------------------------|-------|-------------|---------------|-------------|-------|----|---------------|-------------|-------------|----------|
| The starting character set | FN C1 | AI | data division | check bit A | FN C1 | AI | data division | check bit A | check bit B | end mark |
| Auto Punch | | (d1...dk) | | | | | | | Auto Punch | |

Intelligent identification data coding system and realize the minimum length coding, without user set character set (including the starting character set) or switch character set
 Functional characters FNC1 ~ FNC4 using C1H ~ C4H input
 User input data in AI don't need to use "(" ")" instructions, coding system automatically inserts, no side could go wrong, such as: 18 "019501234567890 *", 01 is AI , the following is wrong : GS k 74 18 "(01)9501234567890**"

| | |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p>When using connection structure, the middle need to insert FNC1 (C1H Decimal = 193) input example is as follows: GS k 74 18 "019501234567890*" 193 "029501234567890*"</p> <p>When set (HRI) print barcode readable characters, control characters will replace with a space, and FNC1 ~ FNC4 will be removed</p> |
| Use example | <pre> 1b 40 1d 48 02 1d 6b 41 0c 31 32 33 34 35 36 37 38 39 30 31 32 1d 6b 42 0c 30 32 33 34 35 36 30 30 30 30 38 39 1d 6b 43 0c 30 32 33 34 35 36 30 30 30 30 38 39 1d 6b 44 08 30 32 33 34 35 36 30 30 1d 6b 45 08 30 32 33 34 35 36 30 30 1d 6b 46 08 30 32 33 34 35 36 30 30 1d 6b 47 08 41 32 33 34 35 36 30 41 1d 6b 48 08 41 30 32 33 34 35 36 41 1d 6b 49 08 41 30 32 33 34 35 36 41 </pre> |

⑤ Status inquiry instruction

Transfer state

| | | |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Command Name | Transfer state | |
| Command Code | ASCII : GS r n Decimal : 29 114 n Hexadecimal : 1D 72 n | |
| Functional description | Transmitted by n specified by the state, as shown below: | |
| | n | 状态 |
| | 1.49 | 传送纸传感器状态 |
| | | |
| Parameter range | n = 1, 49 | |
| default | not | |
| Support model | All | |
| attention | <p>When using a serial interface:</p> <p>If set DTR/DSR control, the printer after confirm the host receiving data in place (the DSR signal for SPACE), only one byte.If the host computer not ready to receive send data (the DSR signal for MARK), printers, wait until the host is ready.</p> <p>If set XON/XOFF control, printer just send a byte, and does not confirm the DSR signal state.</p> | |

| | | | | | | |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------|-----------------|-----------------------|---------------------------|
| | <p>When data generated in the print buffer, execute the command. So between receives the commands and transmit state, there may be a time interval, it depends on the state of the receive buffer.</p> <p>Reply with GS a state of activated automatically when the ASB, sent by GS r state and ASB state must be separate.</p> <p>The state of the transmission type as shown below :</p> <p>Printing paper sensor (n = 1, 49):</p> | | | | | |
| | | po st | off/on | Hexadec imal | Decimal | ASB state |
| | | 0,1 | - | - | - | No meaning |
| | | 2,3 | off | 00 | 0 | Paper sensor: printing pa |
| | | | on | (0C) | (12) | Paper sensor missing pap |
| | | 4 | off | 00 | 0 | Unused, fixed for off |
| | | 5,6 | - | - | - | undefined |
| | 7 | off | 00 | 0 | Unused, fixed for off | |
| | <p>2 and 3: printing paper with all sensors detect the printing paper, printer into offline, and the command is not executed. So a 2 and 3 don't transfer paper out state</p> | | | | | |
| Use example | not | | | | | |

Real-time transmission state

| | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Real-time transmission state |
| Command Code | <p>ASCII : DLE EOT n</p> <p>Decimal : 16 4 n</p> <p>Hexadecimal : 10 04 n</p> |
| Functional description | <p>According to the following parameters, real-time transmission printer status, the parameter n is used to specify the printer to be transmitted</p> <p>Status :</p> <p>n = 1 : Transfer printer status</p> <p>n = 2 : Transfer off-line status</p> <p>n = 3 : Transfer error status</p> <p>n = 4 : Transfer paper sensor</p> |
| Parameter range | $1 \leq n \leq 4$ |
| default | not |
| Support model | All |

| | | | | | |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------|---------------------------------|-----------------------------------------------------------------|
| attention | <ul style="list-style-type: none"> • printer return immediately after receiving the command associated state. • Try not to plug in, the command sequence of two or more bytes of command. • even if the printer is ESC = (peripherals) command set to ban, the command is still valid. • Printer send current state, every state with 1 byte data representation. • Transfer, printer status is not confirmed whether the host when received. • Printer, received the command executed immediately. • the command applies only to a serial port printer. The printer in any state received the command is executed immediately. | | | | |
| | n=1 : printer status | | | | |
| | po | 0/ | Hexadecim | decimal | Function |
| | st | 1 | al | | |
| | 0 | 0 | 00 | 0 | Fixed 0 |
| | 1 | 1 | 02 | 2 | Fixed 1 |
| | 2 | 0 | 00 | 0 | One or two of the box open (no money machine the fixed zero) |
| | | 1 | 04 | 4 | Both coffers closed |
| | 3 | 0 | 00 | 0 | online |
| | | 1 | 08 | 8 | Off-line |
| | 4 | 1 | 10 | 16 | Fixed 1 |
| | 5, 6 | | -- | -- | undefined |
| | 7 | 0 | 00 | 00 | Paper tear away |
| | | 1 | 80 | 96 | Paper not to tear away |
| | n=2 : Send offline | | | | |
| | po | 0/ | Hexadecim | decimal | Function |
| | st | 1 | al | | |
| | 0 | 0 | 00 | 0 | Fixed 0 |
| | 1 | 1 | 02 | 2 | Fixed 1 |
| | 2 | 0 | 00 | 0 | On the cover off |
| 1 | | 04 | 4 | Opening up | |
| 3 | 0 | 00 | 0 | Not Press the paper feed button | |
| | 1 | 08 | 8 | Press the paper feed button | |
| 4 | 1 | 10 | 16 | Fixed 1 | |
| 5 | 0 | 00 | 0 | Paper in place | |
| | 1 | 20 | 32 | out of paper | |
| 6 | 0 | 00 | 00 | Without error | |
| | 1 | 40 | 64 | There is an error condition | |
| 7 | 0 | 00 | 0 | Fixed 0 | |

| | | | | | |
|-------------|----------------------------------------------|-----|-------------|-----------|-----------------------------------------------------------|
| | n=3 : Transmission error status | | | | |
| | post | 0/1 | Hexadecimal | decimal | Function |
| | 0 | 0 | 00 | 0 | Fixed 0 |
| | 1 | 1 | 02 | 2 | Fixed 1 |
| | 2 | | -- | -- | undefined |
| | 3 | 0 | 00 | 0 | Cutter has no error |
| | | 1 | 08 | 8 | Cutter has error |
| | 4 | 1 | 10 | 16 | Fixed 1 |
| | 5 | 0 | 00 | 0 | No unrecoverable error |
| | | 1 | 20 | 32 | Have unrecoverable error |
| | 6 | 0 | 00 | 00 | The print head temperature and voltage is normal |
| | | 1 | 40 | 64 | Beyond the scope of the print head temperature or voltage |
| | 7 | 0 | 00 | 0 | Fixed 0 |
| | n=4 : Transfer paper sensor | | | | |
| | post | 0/1 | Hexadecimal | Decimal | Function |
| | 0 | 0 | 00 | 0 | Fixed 0 |
| | 1 | 1 | 02 | 2 | Fixed 1 |
| | 2,3 | 0 | 00 | 0 | paper |
| | | 1 | 0C | 12 | Paper nearly |
| 4 | 1 | 10 | 16 | Fixed 1 | |
| 5,6 | 0 | 00 | 0 | paper | |
| | 1 | 60 | 96 | Paper out | |
| 7 | 0 | 00 | 0 | Fixed 0 | |
| Use example | 10 04 01 10 04 02 10 04 03 10 04 04 | | | | |

⑥Other instruction

Initialization printer

| | |
|--------------|---------------------------------------------------------|
| Command Name | Initialization printer |
| Command Code | ASCII : ESC @ Decimal : 27 64 Hexadecimal : 1B 40 |

| | |
|------------------------|-----------------------------------------------------------------------------------------------------------------|
| Functional description | Initialize printer the following contents: Clear print cache The parameters to restore the default values |
| Parameter range | not |
| default | not |
| Support model | All |
| attention | not |
| Use example | not |

Print self-test page

| | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Command Name | Print self-test page |
| Command Code | ASCII : DC2 T Decimal : 18 94 Hexadecimal : 12 54 |
| Functional description | Printer to print a test page, contains the printer on the program version, communication interface type, the code page and some other data |
| Parameter range | not |
| default | not |
| Support model | All |
| attention | not |
| Use example | 1B 40 12 54 |