Special orders

Command quick	NO	The command	instruction
Print command	01	GS (k pL pH cn fn m (fn=81)	Print the QR code
	02	GS k m v r nL nH d1…dk	Print qr code
Paper cutting command	03	GS V m 和 GS V m n	Select the cutting pattern and cut the paper
	04	ESC i	The whole paper cutting
	05	ESC m	A paper cutting
Black label set	06	ESC B n	Set black label to detect maximum length
	07	GS FF	Enter black label paper to print start position
Accessibility Settings	08	ESC 8 n1 n2	Setting sleep parameters
	09	ESC p m t1 t2	Generate the chest pulse
State instruction	10	DLE ENQ n （New features ）	Real-time printer requests
	11	GS a n （New features ）	Allow and prohibit automatic status reply (ASB)
The new directive	12	GS ‘ n x1sL x1eH x1eL x1eH ...	Horizontal position printing line segment (curve print command)

<table>
<tr><td>01</td><td colspan="2">GS (k pL pH cn fn m (fn=81)</td></tr>
<tr><td>Instruction names</td><td colspan="2">Print the QR code</td></tr>
<tr><td rowspan="3">Instruction code</td><td>ASCII CODE</td><td>GS (k pL pH cn fn m</td></tr>
<tr><td>Decimal code</td><td>29 40 107 pL pH cn fn m</td></tr>
<tr><td>Hexadecimal code</td><td>1D 28 6b pL pH cn fn m</td></tr>
<tr><td>Functional description</td><td colspan="2">Print the data to receive QR codes in a 2d barcode area.</td></tr>
<tr><td>parameters</td><td colspan="2">pL=3, pH=0
cn=49
fn=81
m=48</td></tr>
<tr><td>The default value</td><td colspan="2">无</td></tr>
<tr><td>considerations</td><td colspan="2">The user must consider the space of the QR code graphics (the spacing of the QR code graphics and the spacing of the left and right are specified in the specification).</td></tr>
<tr><td>And according to</td><td colspan="2">无</td></tr>
<tr><td>Use the sample</td><td colspan="2">QR code test data (hexadecimal)
1b 40
1d 28 6b 03 00 31 43 03
1d 28 6b 03 00 31 45 30
1d 28 6b 06 00 31 50 30 41 42 43
1b 61 01
1d 28 6b 03 00 31 52 30
1d 28 6b 03 00 31 51 30
instruction ：
1b 40
Printer initialization
1d 28 6b 03 00 31 43 03
Set the QR code graphics unit module to 3 point x 3 point
1d 28 6b 03 00 31 45 30
Set the QR code to verify class L
1d 28 6b 06 00 31 50 30 41 42 43
Transmit QR code data "ABC"
1b 61 01
Graphics centered
1d 28 6b 03 00 31 52 30
See if the QR code data is normal</td></tr>
</table>

	1d 28 6b 03 00 31 51 30 Print the QR code

02	GS k m v r nL nH d1…dk	
Instruction names	Print qr code	
Instruction code	ASCII CODE	GS k m v r nL nH d1…dk
	Decimal code	29 107 97 v r nL nH d1…dk
	Hexadecimal code	1D 6B 61 v r nl nH d1…dk
Functional description	Print qr code V represents the specification of qr code, and v = 0 means automatic selection of qr code specifications R stands for error correction NL nH represents the data length D1... Dk represents the qr code data to be printed	
parameters	0 ≤ v ≤ 17 1 ≤ r ≤ 4 k = nL + 256 * nH	
The default value	nothing	
considerations	nothing	
And according to	nothing	

Use the sample	1b 40
	1D 6B 61 08 02 08 00 30 31 32 33 34 35 36 37 0A
	
	instruction ：
	void Print_Qr(u8 *p, u16 Size)
	{
	
	u16 i;
	
	u3_print(0x1D);
	u3_print(0x6B);
	u3_print(0x61);
	
	//In the range 0<= v <= 17
	u3_print(10); //v Indicates the size of qr code
	
	//r Indicates the level of error correction	

```
//In the range 1<=  r  <=  4
u3_print(0x02);

//nL  nH Data length
u3_print(Size  %  256);  //  nL
u3_print(Size  /  256);//  nH

//The data length is equal to  nL  +  256  *nH
for(i  =  0;  i  <  Size;  i++)
{
u3_print(*(p  +  i));
}

u3_print(0x0A);

}
```

If you want to generate a qr code for ABCD, you call this function Such as: Print_Qr (" ABCD "); Can.

03	GS V m and GS V m n	
Instruction names	Select the cutting pattern and cut the paper	
Instruction code	ASCII CODE	GS V m
	Decimal code	29 86 m
	Hexadecimal code	1D 56 m
	ASCII CODE	GS V m n
	Decimal code	29 86 m n
	Hexadecimal code	1D 56 m n
Functional description	Choose a paper cutting pattern and cut paper. Select the paper-cutting mode according to the value of m, as shown below ：	
parameters	① m = 0，48，1，49 ② m = 66， 0 ≤ n ≤ 255	
The default value	Nothing	
considerati	This command is only effective at the beginning 。 • m = 0，48，1， 49，The printer cuts the paper directly。	

M	Paper cutting patterns
0, 48	All cut
1, 49	Half cut
66	Paper cutting and cutting paper

ons	• when m = 66, the printer is in the paper [print position to the distance between the cutting knife + n x (longitudinal unit of movement)] and then cut the paper. • horizontal moving units and longitudinal moving units are set by the GS P command. • the volume of feed is calculated using a longitudinal moving unit.
And according to	Nothing
Use the sample	1B 40 30 30 30 0D 0A 1D 56 00 30 30 30 0D 0A 1D 56 01 30 30 30 0D 0A 1D 56 42 00

04	ESC i	
Instruction names	The whole paper cutting	
Instruction code	ASCII CODE	ESC i
	Decimal code	27 105
	Hexadecimal code	1B 69
Functional description	Select the cutter mode and all cut	
parameters	Nothing	
The default value	Nothing	
considerations	Nothing	
And according to	Nothing	
Use the sample	1B 40 30 30 30 0D 0A 1B 69	

05	ESC m
Instruction	A paper cutting

names		
Instruction code	ASCII CODE	ESC m
	Decimal code	27 109
	Hexadecimal code	1B 6D
Functional description	Nothing	
parameters	0 ⩽ n ⩽ 255	
The default value	Nothing	
considerations	Nothing	
And according to	Nothing	
Use the sample	1B 40 30 30 30 0D 0A 1B 6D	

06	ESC B n	
Instruction names	Set the maximum length of the black mark	
Instruction code	ASCII CODE	ESC B n
	Decimal code	27 67 n
	Hexadecimal code	1B 43 n
Functional description	With the current row spacing as the unit, the black mark range is defined by the number of rows, and the default value is 4 inches.	
parameters	Nothing	
The default value	Nothing	
considerati	Nothing	

ons	
And according to	Nothing
Use the sample	Nothing

07	GS FF	
Instruction names	Enter black label paper to print start position	
Instruction code	ASCII CODE	GS FF
	Decimal code	29 12
	Hexadecimal code	1D 0C
Functional description	Enter black label paper to print start position	
parameters	Nothing	
The default value	Nothing	
considerations	This command sets the next print location to the start line.	
And according to	Nothing	
Use the sample	Nothing	

08	ESC 8 n1 n2	
Instruction names	Setting sleep parameters	
Instruction code	ASCII CODE	ESC 8 n1 n2
	Decimal code	27 56 n1 n2
	Hexadecimal	1B 38 n1 n2

	code	
Functional description	After setting free time, the control board enters the sleep time. N1 + n2 * 256 sleep wait time, unit (10 ms), default value 0; A value of 0 is equal to not sleeping. The minimum value is 200 milliseconds when it is not equal to 0. After entering the sleep, the host must first send a byte of data (0xff) to wake the control panel and wait 50 milliseconds before starting to send the print command or data. Description: this command is mainly used for battery power supply system and requires low power consumption.	
parameters	Nothing	
The default value	Nothing	
considerations	Nothing	
And according to	Nothing	
Use the sample	Nothing	

09	ESC p m t1 t2	
Instruction names	Generate the chest pulse	
Instruction code	ASCII CODE	ESC p m t1 t2
	Decimal code	27 112 m t1 t2
	Hexadecimal code	1B 70 m t1 t2
Functional description	The output pulse (the pulse is specified by t1 and t2) to the pins specified by m	
parameters	m=0,1,48,49 0 ≤ t1 ≤ 255 0 ≤ t2 ≤ 255	
The default value	Nothing	
considerati	1. The box pins are specified by m ；	

<table>
<tr><td>ons</td><td>
<table>
<tr><th>m</th><th>function</th></tr>
<tr><td>0,48</td><td>Cash box opening/closing signal (connecting pin 2)</td></tr>
<tr><td>1,49</td><td>Cash box opening/closing signal (connecting pin 5)</td></tr>
</table>
2. The box opens always [t1 * 2ms], while the closing time is [t2 * 2ms].
3. If t2 < t1, then the closure is [t1 * 2ms].
</td></tr>
<tr><td>And according to</td><td>Nothing</td></tr>
<tr><td>Use the sample</td><td>1B 40
1B 70 00 60 60
1B 70 01 60 60</td></tr>
</table>

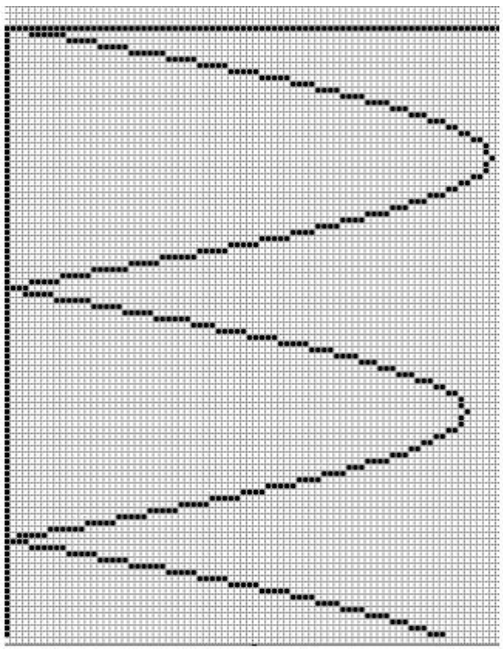
<table>
<tr><th>10</th><th colspan="2">DLE ENQ n</th></tr>
<tr><td>Instruction names</td><td colspan="2">Real-time printer requests</td></tr>
<tr><td rowspan="3">Instruction code</td><td>ASCII CODE</td><td>DLE ENQ n</td></tr>
<tr><td>Decimal code</td><td>16 5 n</td></tr>
<tr><td>Hexadecimal code</td><td>10 05 n</td></tr>
<tr><td>Functional description</td><td colspan="2">The printer responds to the host request. N specifies the following request ：
<table>
<tr><th>n</th><th>request</th></tr>
<tr><td>1</td><td>Start again from error recovery and start from the wrong line 。</td></tr>
<tr><td>2</td><td>Recover from error after clearing the receiving and printing buffer 。</td></tr>
</table>
</td></tr>
<tr><td>parameters</td><td colspan="2">n = 1, 2</td></tr>
<tr><td>The default value</td><td colspan="2">Nothing</td></tr>
<tr><td>considerations</td><td colspan="2">This command is valid only when the automatic paper cutter error occurs when the deck opens the error.
The printer starts processing the data as soon as it receives the command.
This command is still executed even if the printer is offline and the print buffer is full or the serial interface mode is wrong.
In parallel interface mode, this command cannot be executed when the printer is busy.
No matter when you receive < 10 > H < 05 > H < n > (1 or less than n = 2), the data sequence will be sent.
Such as:
ESC * m nH nH dk, d1 = < 10 > H, d2 = < 05 > H, d3 = < 01 > H
In a data containing two or more bytes of command, this command cannot be used.
Such as:
If you want to send the ESC 3n to the printer, but before n is sent, the DTR (for the host is DSR) will become MARK, so the DLE ENQ2 is interrupted before n is received. DLE ENQ 2 code < 10 > H will be treated as ESC 3 code < 10 > H.
DLE ENQ 2 allows the printer to recover from the error state after the data in the receive buffer and print</td></tr>
</table>

	buffer is cleared. The printer retains the Settings for the valid state when the error occurs (ESC! ESC3, etc. You can use this command and ESC @ to initialize the printer completely. This command is only valid for errors that are likely to be restored, except for a header temperature error.
And according to	Nothing
Use the sample	10 05 01

11	GS a n	
Instruction names	Allow and prohibit automatic status reply (ASB)	
Instruction code	ASCII CODE	GS a n
	Decimal code	29 97 n
	Hexadecimal code	1d 61 n
Functional description	The ASB is allowed or prohibited, and the included status items are specified by n, as shown below :	
parameters	0≤n≤255	
The default value	Nothing	
considerations	If any of the state items in the table is allowed, the printer loses state when the command is executed. As soon as the "allowed" status changes, the printer automatically transfers state. Because each state transfer represents the current state, the prohibited status item can be changed. The ASB function is also prohibited if all status items are prohibited. If ASB is allowed as the default setting, the printer is transferred when the printer is opened for the first time to receive and transmit printer data. Transfer the following four status bytes without having to determine if the host is ready to receive data. The four state bytes must be contiguous, except for XOFF code.	

Place	Close/Open	Hexadecimal code	Decimal code	ASB state
0	-	-	-	undefined
1	-	-	-	undefined
2	Close	00	0	Error status forbidden
	Open	04	4	Error status permitting
3	Close	00	0	Printing paper roll sensor status is prohibited
	Open	08	8	Printing paper roll sensor status allows
4-7	-	-	-	undefined

	Because the command data is processed in the receiving buffer, there may be a lag time between the data receive and the state transfer. When using DLE EOT, you must distinguish between the state of these commands and the state of ASB.
And according to	Nothing
Use the sample	1D 61 08

12	GS ‘ n x1sL x1eH x1eL x1eH ...xnsL xnsH xneL xneH	
Instruction names	Horizontal position printing line segment (curve print command)	
Instruction code	ASCII CODE	GS ‘ n x1sL x1eH x1eL x1eH ...xnsL xnsH xneL xneH
	Decimal code	1D 27 n x1sL x1eH x1eL x1eH ...xnsL xnsH xneL xneH
	Hexadecimal code	29 39 n x1sL x1eH x1eL x1eH ...xnsL xnsH xneL xneH
Functional description	The printed enlargement diagram is shown below: each horizontal curve segment can be considered as a component of these points with length 1. Print n line segments, and you can print out the desired curves continuously using this command.  XksL: horizontal coordinates of the lower level of K line; XksH: the horizontal coordinate of the starting point of the K line; XkeL: the horizontal coordinates of low order at the end of K line; XkeH: the horizontal coordinate of the higher order at the end of the K line; The starting position of the coordinates is usually the left of the printed area. The minimum coordinates are (0, 0) and the maximum coordinates are 383, xkeL + xkeH * 256 The line data can be arranged in a different order; Char SendStr[8];	

```
Char SendStr2[16];
Float i;
Short y1,y2,y1s,y2s;
//Print the Y axis (a line)
SendStr[0]=0x1D;
SendStr[1]=0x27;
SendStr[2]=1;   // A line of
SendStr[3]=30
SendStr[4]=0;   //The starting point
SendStr[5]=104;
SendStr[6]=1;     //The end point
PreSendData(SendStr,7);

//Print curve
SendStr[0]=0x1D;
SendStr[1]=0x27;
SendStr[2]=3;    //Three lines:X-axis,sin and cos function curve
SendStr[3]=180;   SendStr[4]=0;   // The X axis location
SendStr[5]=180;   SendStr[6]=0;
for(i=1;i<1200;i++)
 {
   y1=sin(i/180*3.1416)*(380-30)/2+180;   //Calculate the sine function
   y2=cos(i/180*3.1416)*(380-30)/2+180;   //Compute the cosine function coordinates
   If(i==1){y1s=y1;y2s=y2;}
   PreSendData(SendStr,7);

   If(y1s<y1)
   {
     PreSendData(&y1s,2);  //The sine function at the beginning of the line
     PreSendData(&y1,2);  //The sine function at the end of the line
    }
    Else
    {
     PreSendData(&y1,2);  //The sine function at the beginning of the line
     PreSendData(&y1s,2);  //The sine function at the end of the line
    }
    If(y2s<y2)
    {
     PreSendData(&y2s,2);  //The cosine function at the beginning of the line
     PreSendData(&y2,2);  //The cosine function at the end of the line
    }
    Else
    {
     PreSendData(&y2,2);  //The cosine function at the beginning of the line
     PreSendData(&y2s,2);  //The cosine function at the end of the line
    }
    y1s=y1;   // When the print enters the next line, the sine function curve starts at the
horizontal axis
    y2s=y2;    //When the print enters the next line, the cosine function curve starts at the
```

	horizontal axis } }
parameters	0≤n≤8
The default value	Nothing
considerations	Print a point， The xkeL=xksL , xkeH=xksH
And according to	Nothing
Use the sample	1d 27 01 00 00 00 00 1d 27 01 01 00 0f 00 1d 27 01 10 00 1f 00 1d 27 01 20 00 2c 00 1d 27 01 2d 00 3a 00 1d 27 01 3b 00 44 00 1d 27 01 45 00 4c 00 1d 27 01 4d 00 54 00 1d 27 01 55 00 5c 00 1d 27 01 5d 00 63 00 1d 27 01 64 00 6a 00 1d 27 01 6b 00 71 00 1d 27 01 72 00 77 00 1d 27 01 78 00 7d 00 1d 27 01 7e 00 84 00 1d 27 01 85 00 8a 00 1d 27 01 8b 00 91 00 1d 27 01 92 00 97 00 1d 27 01 98 00 9d 00 1d 27 01 9e 00 a3 00 1d 27 01 a4 00 a9 00 1d 27 01 aa 00 af 00 1d 27 01 b0 00 b4 00 1d 27 01 b5 00 b9 00 1d 27 01 ba 00 bf 00 1d 27 01 c0 00 c4 00 1d 27 01 c5 00 c9 00 1d 27 01 ca 00 cf 00 1d 27 01 d0 00 d4 00 1d 27 01 d5 00 d8 00 1d 27 01 d9 00 dc 00 1d 27 01 dd 00 df 00 1d 27 01 e0 00 e3 00 1d 27 01 e4 00 e6 00 1d 27 01 e7 00 e9 00 1d 27 01 ea 00 ec 00 1d 27 01 ed 00 ef 00 1d 27 01 f0 00 f1 00 1d 27 01 f2 00 f3 00 1d 27 01 f4 00 f5 00 1d 27 01 f6 00 f7 00 1d 27 01 f8 00 f8 00 1d 27 01 f9 00 fa 00 1d 27 01 fb 00 fb 00 1d 27 01 fc 00 fd 00 1d 27 01 fe 00 fe 00 1d 27 01 ff 00 ff 00 1d 27 01 00 01 00 01 1d 27 01 01 01 01 01 1d 27 01 02 01 02 01 1d 27 01 03 01 03 01 1d 27 01 04 01 04 01 1d 27 01 05 01 05 01 1d 27 01 06 01 06 01 1d 27 01 06 01 06 01 1d 27 01 07 01 07 01 1d 27 01 07 01 07 01 1d 27 01 07 01 07 01 1d 27 01 07 01 07 01 1d 27 01 07 01 07 01 1d 27 01 06 01 06 01 1d 27 01 06 01 06 01 1d 27 01 05 01 05 01 1d 27 01 04 01 04 01 1d 27 01 04 01 04 01 1d 27 01 03 01 03 01 1d 27 01 02 01 02 01 1d 27 01 00 01 00 01 1d 27 01 ff 00 ff 00 1d 27 01 fe 00 fe 00 1d 27 01 fc 00 fd 00 1d 27 01 f9 00 fa 00 1d 27 01 f8 00 f8 00 1d 27 01 f6 00 f7 00 1d 27 01 f4 00 f5 00 1d 27 01 f2 00 f3 00 1d 27 01 f0 00 f1 00

	1d 27 01 ed 00 ef 00 1d 27 01 ea 00 ec 00 1d 27 01 e7 00 e9 00 1d 27 01 e4 00 e6 00 1d 27 01 e0 00 e3 00 1d 27 01 dd 00 df 00 1d 27 01 d9 00 dc 00 1d 27 01 d5 00 d8 00 1d 27 01 d0 00 d4 00 1d 27 01 ca 00 cf 00 1d 27 01 c5 00 c9 00 1d 27 01 c0 00 c4 00 1d 27 01 ba 00 bf 00 1d 27 01 b5 00 b9 00 1d 27 01 b0 00 b4 00 1d 27 01 aa 00 af 00 1d 27 01 a4 00 a9 00 1d 27 01 9e 00 a3 00 1d 27 01 98 00 9d 00 1d 27 01 92 00 97 00 1d 27 01 8b 00 91 00 1d 27 01 85 00 8a 00 1d 27 01 7e 00 84 00 1d 27 01 78 00 7d 00 1d 27 01 72 00 77 00 1d 27 01 6b 00 71 00 1d 27 01 64 00 6a 00 1d 27 01 5d 00 63 00 1d 27 01 55 00 5c 00 1d 27 01 4d 00 54 00 1d 27 01 45 00 4c 00 1d 27 01 3b 00 44 00 1d 27 01 2d 00 3a 00 1d 27 01 20 00 2c 00 1d 27 01 10 00 1f 00 1d 27 01 01 00 0f 00 1d 27 01 00 00 00 00 1d 27 01 00 00 00 00 1d 27 01 01 00 0f 00 1d 27 01 10 00 1f 00 1d 27 01 20 00 2c 00 1d 27 01 2d 00 3a 00 1d 27 01 3b 00 44 00 1d 27 01 45 00 4c 00 1d 27 01 4d 00 54 00 1d 27 01 55 00 5c 00 1d 27 01 5d 00 63 00 1d 27 01 64 00 6a 00 1d 27 01 6b 00 71 00 1d 27 01 72 00 77 00 1d 27 01 78 00 7d 00 1d 27 01 7e 00 84 00 1d 27 01 85 00 8a 00 1d 27 01 8b 00 91 00 1d 27 01 92 00 97 00 1d 27 01 98 00 9d 00 1d 27 01 9e 00 a3 00 1d 27 01 a4 00 a9 00 1d 27 01 aa 00 af 00 1d 27 01 b0 00 b4 00 1d 27 01 b5 00 b9 00 1d 27 01 ba 00 bf 00 1d 27 01 c0 00 c4 00 1d 27 01 c5 00 c9 00 1d 27 01 ca 00 cf 00 1d 27 01 d0 00 d4 00 1d 27 01 d5 00 d8 00 1d 27 01 d9 00 dc 00 1d 27 01 dd 00 df 00 1d 27 01 e0 00 e3 00 1d 27 01 e4 00 e6 00 1d 27 01 e7 00 e9 00 1d 27 01 ea 00 ec 00 1d 27 01 ed 00 ef 00 1d 27 01 f0 00 f1 00 1d 27 01 f2 00 f3 00 1d 27 01 f4 00 f5 00 1d 27 01 f6 00 f7 00 1d 27 01 f8 00 f8 00 1d 27 01 f9 00 fa 00 1d 27 01 fb 00 fb 00 1d 27 01 fc 00 fd 00 1d 27 01 fe 00 fe 00 1d 27 01 ff 00 ff 00 1d 27 01 00 01 00 01 1d 27 01 01 01 01 01 1d 27 01 02 01 02 01 1d 27 01 03 01 03 01 1d 27 01 04 01 04 01 1d 27 01 05 01 05 01 1d 27 01 06 01 06 01 1d 27 01 06 01 06 01 1d 27 01 07 01 07 01 1d 27 01 07 01 07 01 1d 27 01 07 01 07 01 1d 27 01 07 01 07 01 1d 27 01 07 01 07 01 1d 27 01 06 01 06 01

	1d 27 01 06 01 06 01 1d 27 01 05 01 05 01 1d 27 01 04 01 04 01 1d 27 01 04 01 04 01 1d 27 01 03 01 03 01 1d 27 01 02 01 02 01 1d 27 01 00 01 00 01 1d 27 01 ff 00 ff 00 1d 27 01 fe 00 fe 00 1d 27 01 fc 00 fd 00 1d 27 01 f9 00 fa 00 1d 27 01 f8 00 f8 00 1d 27 01 f6 00 f7 00 1d 27 01 f4 00 f5 00 1d 27 01 f2 00 f3 00 1d 27 01 f0 00 f1 00 1d 27 01 ed 00 ef 00 1d 27 01 ea 00 ec 00 1d 27 01 e7 00 e9 00 1d 27 01 e4 00 e6 00 1d 27 01 e0 00 e3 00 1d 27 01 dd 00 df 00 1d 27 01 d9 00 dc 00 1d 27 01 d5 00 d8 00 1d 27 01 d0 00 d4 00 1d 27 01 ca 00 cf 00 1d 27 01 c5 00 c9 00 1d 27 01 c0 00 c4 00 1d 27 01 ba 00 bf 00 1d 27 01 b5 00 b9 00 1d 27 01 b0 00 b4 00 1d 27 01 aa 00 af 00 1d 27 01 a4 00 a9 00 1d 27 01 9e 00 a3 00 1d 27 01 98 00 9d 00 1d 27 01 92 00 97 00 1d 27 01 8b 00 91 00 1d 27 01 85 00 8a 00 1d 27 01 7e 00 84 00 1d 27 01 78 00 7d 00 1d 27 01 72 00 77 00 1d 27 01 6b 00 71 00 1d 27 01 64 00 6a 00 1d 27 01 5d 00 63 00 1d 27 01 55 00 5c 00 1d 27 01 4d 00 54 00 1d 27 01 45 00 4c 00 1d 27 01 3b 00 44 00 1d 27 01 2d 00 3a 00 1d 27 01 20 00 2c 00 1d 27 01 10 00 1f 00 1d 27 01 01 00 0f 00 1d 27 01 00 00 00 00