

Command Description

1. EPSON Command Mode

Command	Hex	Function Description
HT	09	Move cursor right
BS	08	Move cursor left
US LF	1F 0A	Move cursor up
LF	0A	Move cursor down
US CR	1F 0D	Move cursor to right-most position
CR	0D	Move cursor to left-most position
HOM	0B	Move cursor to home position
US B	1F 42	Move cursor to bottom position
US \$ x y	1F 24 x y	Move cursor to specified position $1 \leq x(\text{column}) \leq 20$; $1 \leq y(\text{row}) \leq 2$
US C n	1F 43 n	Select/cancel cursor display n=0, canceled ; n=1, selected
CLR	0C	Clear display screen
CAN	18	Clear cursor line
US X n	1F 58 n	Brightness adjustment $1 \leq n \leq 4$
US E n	1F 45 n	Blink display screen $0 \leq n \leq 255$ (n*50msec) ON / (n*50msec) OFF n= 0, blinking is canceled n=255, display is turned off
ESC @	1B 40	Initialize display
ESC t n	1B 74 n	Select character code table $0 \leq n \leq 5$ (Please refer " Chapter 5 ")
ESC R n	1B 52 n	Select international character set (Please refer International Font Set Table)
US r n	1F 72 n	Select/cancel reverse character n=0, canceled ; n=1, selected
US MD1	1F 01	Specify overwrite mode
US MD2	1F 02	Specify vertical scroll mode
US MD3	1F 03	Specify horizontal scroll mode
US . n	1F 2E n	Specify period display n= display character code
US , n	1F 2C n	Specify comma display n= display character code
US ; n	1F 3B n	Specify semicolon (period+comma) display n= display character code
US # n m	1F 23 n m	Specify display annunciator,, turn the annunciator at "m" column on or off n=0,1 (Off, On) ; $0 \leq m \leq 20$
ESC & s n m [a(pl..p5)] (m-n+1)	1B 26 s n m [a(pl..p5)](m-n+1)	Define download characters s=1 ; $32 \leq n \leq m \leq 126$; a=5 (p1..p5 = pattern1..pattern5)
ESC ? n	1B 3F n	Cancel user-defined characters $32 \leq n \leq 126$ (n=character code)

ESC % n	1B 25 n	Select/cancel download character set n=0, canceled ; n=1, selected
ESC W n s (x1 y1 x2 y2)	1B 57 n s (x1 y1 x2 y2)	Specify/cancel the window range n=1,2,3,4 (four windows) ; s=0,1 (disable, enable) 1 ≤ x1 ≤ x2 ≤ 20 (column) ; 1 ≤ y1 ≤ y2 ≤ 2 (row)
ESC = n	1B 3D n	Select peripheral device n=1, printer ; n=2, display ; n=3, printer & display
US :	1F 3A	Set starting/ending position of macro definition
US ^ n m	1F 5E n m	Execute and quit macro 0 ≤ (n,m) ≤ 255 n: specifies the time interval for display of characters in units of [n* 50msec] m: specifies the interval of macro execution every [m*50msec]
US @	1F 40	Execute self-test
US T h m	1F 54 h m	Display time :0 ≤ h ≤ 23 ; 0 ≤ m ≤ 59
US U	1F 55	Display of time counter

*** International Font Set Table**

n (Hex)	International Font Set	n (Hex)	International Font Set
00h	U.S.A.	06h	ITALY
01h	FRANCE	07h	SPAIN
02h	GERMANY	08h	JAPAN
03h	U.K.	09h	NORWAY
04h	DENMARK I	0Ah	DENMARK II
05h	SWEDEN		SLAVONIC/RUSSIA

※ Specify decimal point, comma, semicolon, annunciator*

(1) US . n (Decimal Point) / US , n (Comma) / US ; n (Semicolon):

The displayed character codes are form 32(20h) to 127(7Eh), and 128(80h) to 255(FFh) in the character code table. The period/comma/semicolon displayed only for n. The period is not displayed for the subsequent display characters.

(2) US # n m (annunciator):

[range] n = 0(00h) or 1(01h) / m = 0(00h)~20(14h)

[notes] When n= 0, the annunciator at column m is turned off.

When n= 1, the annunciator at column m is turned on.

"m" specify column number (the most left column is column 1) at which annunciator to be turned on/off is placed.

When m = 0, all annunciators are turned on or off.

Once an annunciator(s) is turned on, it remains on until turned off by this command, the ESC@ or US@ command is executed, or the power is turned off.

[example]: To turn on the annunciator at the third column:

[n = 01h], [m = 03h]

To turn off all the annunciators:

[n = 00h], [m = 00h]

※ Above commands relating decimal point, comma, semicolon, and annunciator may not be available due to hardware limit of display tube.

ESC % n	1B 25 n	Select/cancel download character set n=0, canceled ; n=1, selected
ESC W n s (x1 y1 x2 y2)	1B 57 n s (x1 y1 x2 y2)	Specify/cancel the window range n=1,2,3,4 (four windows) ; s=0,1 (disable, enable) $1 \leq x1 \leq x2 \leq 20$ (column) ; $1 \leq y1 \leq y2 \leq 2$ (row)
ESC = n	1B 3D n	Select peripheral device n=1, printer ; n=2, display ; n=3, printer & display
US :	1F 3A	Set starting/ending position of macro definition
US ^ n m	1F 5E n m	Execute and quit macro $0 \leq (n,m) \leq 255$ n: specifies the time interval for display of characters in units of [n* 50msec] m: specifies the interval of macro execution every [m*50msec]
US @	1F 40	Execute self-test
US T h m	1F 54 h m	Display time $0 \leq h \leq 23$; $0 \leq m \leq 59$
US U	1F 55	Display of time counter

*** International Font Set Table**

n (Hex)	International Font Set	n (Hex)	International Font Set
00h	U.S.A.	06h	ITALY
01h	FRANCE	07h	SPAIN
02h	GERMANY	08h	JAPAN
03h	U.K.	09h	NORWAY
04h	DENMARK I	0Ah	DENMARK II
05h	SWEDEN		SLAVONIC/RUSSIA

※ Specify decimal point, comma, semicolon, annunciator*

(3) US . n (Decimal Point) / US , n (Comma) / US ; n (Semicolon):

The displayed character codes are from 32(20h) to 127(7Eh), and 128(80h) to 255(FFh) in the character code table. The period/comma/semicolon displayed only for n. The period is not displayed for the subsequent display characters.

(4) US # n m (annunciator):

[range] n = 0(00h) or 1(01h) / m = 0(00h)~20(14h)

[notes] When n= 0, the annunciator at column m is turned off.

When n= 1, the annunciator at column m is turned on.

"m" specify column number (the most left column is column 1) at which annunciator to be turned on/off is placed.

When m = 0, all annunciators are turned on or off.

Once an annunciator(s) is turned on, it remains on until turned off by this command, the ESC@ or US@ command is executed, or the power is turned off.

[example]: To turn on the annunciator at the third column:

[n = 01h], [m = 03h]
 To turn off all the annunciators:
 [n = 00h], [m = 00h]

✘ *Above commands relating decimal point, comma, semicolon, and annunciator may not be available due to hardware limit of display tube.*

2. UTC Standard Command Mode

Command	Hex	Function Description
BS	08	Back space
HT	09	Horizontal tab
LF	0A	Line feed
CR	0D	Carriage return
DC0 p	10 p	Move cursor to specified position, $0 \leq p \leq 39$ (Please refer Row Character Position Chart)
DC1	11	Over write display mode
DC2	12	Vertical scroll mode
DC3	13	Cursor on
DC4	14	Cursor off
ESC d	1B 64	Change to UTC enhanced mode
US	1F	Clear display

Row Character Position Chart (Decimal)

Row1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Row2	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39

Row Character Position Chart (Hex)

Row1	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	10	11	12	13
Row2	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F	20	21	22	23	24	25	26	27

3. UTC Enhance Command Mode

Command	Hex	Function Description
ESC u A..CR	1B 75 41 [data x 20] 0D	Upper line display
ESC u B..CR	1B 75 42 [data x 20] 0D	Bottom line display
ESC u D..CR	1B 75 44 [data x 45] 0D	Upper line message scroll continuously
ESC u E..CR	1B 75 45 hh ':' mm 0D	Set and display 24 hour time $0 \leq h, m \leq 9$
ESC u F..CR	1B 75 46 [data x 45] 0D	Upper line message scroll once pass
ESC u H..CR	1B 75 48 n m 0D	Change attention code $32 \leq n, m$ (Default attention code $n=1Bh, m=75h$)
ESC u 1..CR	1B 75 49 [data x 40] 0D	Two line display
ESC RS..CR	1B 0F 0D	Change to UTC standard mode

4. CD5220 Command Mode

Command	Hex	Function Description
ESC DC1	1B 11	Overwrite mode
ESC DC2	1B 12	Vertical scroll mode
ESC DC3	1B 13	Horizontal scroll mode
ESC Q A CR	1B 51 41 [N]20 0D	Set string display mode, write string to upper line
ESC Q B CR	1B 51 42 [N]20 0D	Set string display mode, write string to lower line
ESC Q D CR	1B 51 44 [N]m20 0D	Upper line message scroll continuously m<40
ESC [D	1B 5B 44	Move cursor left
BS	08	Move cursor left
ESC [C	1B 5B 43	Move cursor right
HT	09	Move cursor right
ESC [A	1B 5B 41	Move cursor up
ESC [B	1B 5B 42	Move cursor down
LF	0A	Move cursor down
ESD [H	1B 5B 48	Move cursor to home position
HOM	0B	Move cursor to home position
ESC [L	1B 5B 4C	Move cursor to left-most position
CR	0D	Move cursor to left-most position
ESC [R	1B 5B 52	Move cursor to right-most position
ESC [K	1B 5B 4B	Move cursor to bottom position
ESC I x y	1B 6C x y	Move cursor to specified position 1 ≤ x ≤ 20 (column) ; y=1,2 (row)
ESC @	1B 40	Initialize display
ESC W s x1 x2 y	1B 57 s x1 x2 y	Enable or disable the window range at horizontal scroll mode s=0,1 (disable, enable) 1 ≤ x1 ≤ x2 ≤ 20 (column) ; y=1,2 (row)
CLR	0C	Clear display screen, and clear string mode
CAN	18	Clear cursor line, and clear string mode
ESC * n	1B 2A n	Brightness adjustment 1 ≤ n ≤ 4
ESC & s n m [a(pl..p5)] (m-n+1)	1B 26 s n m [a(pl..p5)] (m-n+1)	Define download characters s=1 ; 32 ≤ n ≤ m ≤ 126 ; a=5 (p1..p5 = pattern1..pattern5)
ESC ? n	1B 3F n	Delete download characters 32 ≤ n ≤ 126 (n=character code)
ESC % n	1B 25 n	Select / cancel download character set. n=0, canceled ; n=1, selected
ESC _ n	1B 5F n	Set cursor ON/OFF n=0,1 (Off,On)
ESC f n	1B 66 n	Select international fonts set
ESC c n	1B 63 n	Select fonts, ASCII code or JIS code
ESC = n	1B 3D n	Select peripheral device n=1, printer ; n=2, display ; n=3, printer & display

Character Set

1 U.S.A. / Standard Character Set (20h - 7Eh)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
20h		!	“	#	\$	%	&	'	()	*	+	,	-	.	/
30h	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
40h	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
50h	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
60h	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
70h	p	q	r	s	t	u	v	w	x	y	z	{		}	~	

2 International Character Selection

No.	International	23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E
	U.S.A.	#	\$	@	[\]	^	`	{		}	~
1	FRANCE	#	\$	à	°	Ç	§	^	`	é	ù	è	¨
2	GERMANY	#	\$	§	Ä	Ö	Ü	^	`	ä	ö	ü	β
3	U.K.	£	\$	@	[\]	^	`	{		}	~
4	DENMARK I	#	\$	@	Æ	Φ	Â	^	`	æ	ø	â	~
5	SWEDEN	#	α	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
6	ITALY	#	\$	@	°	\	é	^	ù	à	ò	è	ì
7	SPAIN	℞	\$	@	ı	Ñ	ı	^	`	¨	ñ	}	~
8	JAPAN	#	\$	@	[¥]	^	`	{		}	~
9	NORWAY	#	α	É	Æ	Ø	Å	Ü	é	æ	ø	å	ü
10	DENMARK II	#	\$	É	Æ	Ø	Å	Ü	é	æ	ø	å	ü
11	SLAVONIC	#	\$	@	[\]	^	`	{		}	~
12	RUSSIA	#	\$	@	[\]	^	`	{		}	~