



ZQ-VFD2300

Command Description

PL-200 Command Set

1B 3D 10	EPSON	1B 3D 70	UTC enhance
1B 3D 20	Noritake	1B 3D 80	AEDEX
1B 3D 30	Futaba	1B 3D 90	ADM787
1B 3D 40	PL-200	1B 3D A0	DSP-80
1B 3D 50	PTC	1B 3D B0	CD5220
1B 3D 60	UTC std	1B 3D C0	EMAX
1b 3D	DQLOGIC		

PL-200 Command Mode

Command	Hex	Function Description
HT	09	Move cursor right (Only valid in over write mode)
BS	08	Move cursor left (Only valid in over write mode)
CR	0D	Move cursor to left-most position (Only valid in overwrite mode)
ESC	@ 1B 40	Initialize customer display to initial state, clears display buffer, set display Mode to shift and sets current display
ESC U	1B 55	Select upper row as current row (Initial default)
ESC D	1B 44	Select lower row as current row
ESC A n	1B 41 n	Sets customer display disable or enable n=D, Disable; n=E, Enable
ESC C r c	1B 43 r c	Move cursor to specified position (Only valid in overwrite mode) r=U, upper row; r=D, lower row 1 • c • 2 • 0 (column number)
ESC E r n	1B 45 r n	Set special effect or display mode of specified row

(REMARK) *Using commands “ESC E r n”, the value (Hex) of parameter n special function, the value is one of
 r 58h=all rows
 55h=upper row
 44h=lower row
 30h=shift mode (Default display mode)
 32h=blink mode
 33h=clear this row and switch to shift mode
 34h=overwrite mode
 35h=vertical mode

* International Font Set Table

n (Hex)	InternationalFont Set	n (Hex)	InternationalFont Set
30h	U.S.A	32h	FRANCE
31h	GERMANY	33h	JAPAN

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 • x (column) • 20 ; 1 • y (row) • 2
US C n	1B 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 • n • 4
US E n	1F 45 n	Blink display screen 0 • n • 255 (n*50msec) ON / (n*50msec) OFF n= 0, blinking is canceled n=255, display is turned off
ESC @	1B 40	Initialize display

Command	Hex	Function Description
ESC t n	1B 74 n	Select character code table 0 • n • 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 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
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	Cancel user-defined characters 32 • n • 126 (n=character code)
ESC % n	1B 25 n	Select/cancel download character set N=0, canceled ; n=1, selected
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 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.

(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.

Command	Hex	Function Description
ESC % n	1B 25 n	Select/cancel download character set n=0, canceled ; n=1, selected
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*

(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.

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	10p	Move cursor to specified position, 0 • p • 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
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

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 • h , m • 9
ESC u F..CR	1B 75 46 [data x 45] 0D	Upper line message scroll once pass

AEDEX Command Mode

Command	Hex	Function Description
! # 1..CR	21 23 31 [data x20] 0D	Upper line display
! # 2..CR	21 23 32 [data x 20] 0D	Bottom line display
! # 4..CR	21 23 34 [data x 45] 0D	Upper line message scroll continuously
! # 5..CR	21 23 35 hh ": " mm 0D	Set and display 24 hour time 0 • h , m • 9
! # 5 CR	21 23 35 0D	Display 24 hour time
! # 6..CR	21 23 36 [data x 45] 0D	Upper line message scroll once pass
! # 8..CR	21 23 38 n m 0D	Change attention code 32 • n , m (Default attention code n=?!?, m=?#?)
! # 9..CR	21 23 39 [data x 40] 0D	Two line display

ADM788 Command Mode

Command	Hex	Function Description
CLR	0C	Clear display
CR	0D	Carriage return
SLE1	0E	Clear up line and move cursor to upper line left most end
SLE2	0F	Clear low line and move cursor to lower line left most end
DC1	11 n	Set line blinking n=1, upper line n=2, lower line
DC2	12 n	Clear line blinking n=1, upper line n=2, lower line
SF1	1E	Clear field 1 and move cursor to field 1 fast position
SF2	1F	Clear field 2 and move cursor to field 2 fast position

DSP800 Command Mode

Command	Hex	Function Description
EOT SOH I n ETB	04 01 49 n 17	Select international character set (Please refer International Font Set Table)
EOT SOH P n ETB	04 01 50 n 17	Move cursor to specified position 49 • n • 88
EOT SOH C n m ETB	04 01 43 n m 17	Clear display range from n position to m position and move cursor to n position 49 • n • m • 88
EOT SOH S n ETB	04 01 53 n 17	Save the current displaying data (40 characters) to n'th layer for demo display 1 • n • 3 (n specify the layer 1, 2, or 3)
EOT SOH D n m ETB	04 01 44 n m 17	Display the saved data 1 • n • 3 (n specify the layer 1, 2, or 3) "m" can be ignored
EOT SOH A n ETB	04 01 41 n 17	Brightness adjustment 1 • n • 4
EOT SOH % ETB	04 01 25 17	Initialize display

Page 0	(Pc437: USA, Standard Europe) (80H - FFH)
Page 1	(Katakana) (80H - FFH)
Page 2	(Pc850: Multilingual) (80H - FFH)
Page 3	(Pc860: Portuguese) (80H - FFH)
Page 4	(Pc863: Canadian-French) (80H - FFH)
Page 5	(Pc865: Nordic) (80H - FFH)
Page 6	(Slavonic) (80H - FFH)
Page 7	(Russia) (80H - FFH)
Page 14	(Pc737: Greek) (80H - FFH)
Page 16	(WPC1252) (80H - FFH) XX
Page 19	(Pc858: Euro) (80H - FFH)
Page 255	(80H - FFH)

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 upperline
ESC Q B CR	1B 51 42 [N] 20 0D	Set string display mode, write string to lowerline
ESC Q D CR	1B 51 44 [N] m20 0D	Upper line messagescroll 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
ESC [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

Command	Hex	Function Description
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