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# EZ-2200/EZ-2300 Programmer's Manual

GODEX

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# 1. Commands

## 1-1. EZPL

The EZPL (EZ Programming Language) is a high-level label definition and printer control language.
The features are:

1. The data fields are stored and processed until the printing instruction is received.
2. All the data can be rotated.
3. Images can be downloaded and stored.

There are three basic types of commands:
Setup
Control
Label format

### Setup commands

Contain the printer control instructions, configuration instructions and image downloading instructions.

| Description | | Command | Page |
|---|---|---|---|
| 1. | Printing mode | ^Ax | 4 |
| 2. | Stop position setting | ^Ex | 4 |
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| 11. | Number of copies per label | ^Cx | 6 |
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| 15. | Download label format | ^Fname | 7 |
| 16. | Recall label format | ^Kname | 7 |
| 17. | Label width setting | ^Wx | 7 |
| 18. | Number of labels per cut | ^Dx | 7 |
| 19. | Select Code Page 850/852 | ^XSET,CODEPAGE,p1 | 7 |
| 20. | Select different area PS2 Keyboard | ^XSET,KEYBOARD,p1 | 7 |
| 21. | Set remind beep on/off | ^XSET,BEEP,n | 8 |
| 22. | Serial Port translation setting | ^Yp1.p2,p3,p4 | 8 |
| 23. | Set the forward length | ^Mx | 8 |
| 24. | Set the backward length | ^Bx | 8 |

### Control commands

Cause the printer to take action immediately, such as cleaning memory, feeding label.

| Description | | Command | Page |
|---|---|---|---|
| 1. | Graphic download memory | ~Ea, name, length | 9 |
| 2. | Bit-Mapped font download | ~Jn | 9 |
| 3. | Graphic mode | ~G | 9 |
| 4. | Print last label | ~Px | 9 |
| 5. | Print Self-Test page | ~V | 9 |
| 6. | Date / Time setting | ~Dm,d,y,h,i,s | 9 |
| 7. | Reset printer | ~Z | 9 |
| 8. | Printer head testing | ~T | 9 |
| 9. | Clear all | ~MDEL | 10 |
| 10. | Delete specific file from printer memory | ~MDELx,name | 10 |

| | | | |
|---|---|---|---|
| 11. | Display the memory state | ~MDIR | 10 |
| 12. | Save the TXT. file to printer | ~MSETT,name<CR>nnnnnnnn<data> | 10 |
| 13. | Read saved file | ~MGETT,name<CR> | 10 |
| 14. | Immediate response command | ~S,CHECK | 11 |
| 15. | Rotate printing | ~Rx | 11 |
| 16. | Print the available space and data name in the memory | ~Xn | 11 |
| 17. | Acknowledge form RS-232 | ~Kn | 11 |
| 18. | Row Offset Adjustment | ~Q±n | 11 |
| 19. | Download dBase III to Printer | ~L,DBASE,p1,p2 | 11 |
| 20. | Analogue press FEED key | ~S,FEED | 11 |
| 21. | Print database information in memory | ~X7 | 12 |
| 22. | Open database | FILEDB,OPEN,p1 | 12 |
| 23. | Move data record | FILEDB,MOVE,p1 | 12 |
| 24. | Searching | FILEDB,FIND,p1,p2 | 12 |
| 25. | dBase data substitute Variable print | V#LINKDB,p1,p2 | 12 |


## Label formatting commands

Define field data, such as Line, Rectangle, Barcode, Text and image.


| Description | | Command | Page |
|---|---|---|---|
| 1. | Define date layout | Daa\|bb\|cc | 13 |
| 2. | Serial number setting | Cx,ys,±value,prompt | 13 |
| 3. | Terminate label formatting mode and print label | E | 13 |
| 4. | Graphic command | Gwxxx | 13 |
| 5. | Line command | La,x, y, x1, y1 | 14 |
| 6. | Rectangle | Rx, y, x1,y1, lrw, ubw | 14 |
| 7. | Table | Hx,y,row_count,col_count,row_width,col_width,line_width | 14 |
| 8. | Define time layout formatting | Th\|m\|s | 14 |
| 9. | Graphics | Yx, y, name | 14 |
| 10. | Text | At, x, y, x_mul, y_mul, gap, rotation, data | 15 |
| 11. | Barcode | Bt,x,y,narrow,wide,height,rotation,readable,data | 16 |
| 12. | PDF 417 | Px,y,w,h,r,c,ec,len | 16 |
| 13. | Maxicode | Mx, y, sno, nos, mode, ccode, zip, class, rotation, message | 17 |
| 14. | DataMatrix Code | Xp1, p2, p3, data | 17 |
| 15. | Define variable field | Vxx, length, prompt | 17 |
| 16. | Variable for left, center, right in length of appoint | Vxx,length,prompt,jnl | 17 |
| 17. | Variable Addition | V#OP+,p1,p2,p3 | 17 |
| 18. | Variable Subtraction | V#OP-,p1,p2,p3 | 17 |
| 19. | Variable Multiplication | V#OP*,p1,p2,p3 | 17 |
| 20. | Variable Division | V#OP/,p1,p2,p3 | 18 |
| 21. | Variable Remainder | V#OP%,p1,p2,p3 | 18 |
| 22. | Disable variable prompt | V#SET,UNPROMPT,p1 | 18 |
| 23. | Add moduls 10 check code | V#ADDCHKSUM,Vnn | 18 |
| 24. | Copy all of variable data | V#STRCPY,Vnn,Vmm | 18 |
| 25. | Copy part of Variable value | V#STRSUB,Vnn,Vmm,first,length | 19 |
| 26. | Pattern command | Qx, y, width, height | 19 |
| 27. | Downloading character sets to memory | Vt, x, y, x_mul, y_mul, gap, rotation, data | 19 |

# 1-2. Language Description

## Rules and syntax

EZPL commands have parameter strings associated with them;
The commands begin with a letter as ID for each function.
The comma (,) is the delimiter to separate each parameter.
The CR [Carriage Return: decimal (13), hex (oD) signifies the end of every command.
Control and Setup commands use the tilde (~) and caret (^) prefix.
Label Formatting commands have no prefix.
Example: “~Ea,name,length “. ”E” is an image downloads command, and (a, name, length) are three parameters.

## Setup commands

1. Printing mode

| | |
|---|---|
| Syntax | ^Ax |
| Parameter | x = D or T |
| Description | x = D , Direct thermal mode<br>x = T , Thermal transfer mode |

2. Stop position setting

| | |
|---|---|
| Syntax | ^Ex |
| Parameter | X = 0.0~40.0 (unit : mm, can set the first decimal point ) |
| Description | Feed paper to desired stop position. |

3. Date offset function

| | | |
|---|---|---|
| Syntax | ^D+dddd.hh | |
| Parameter | dddd is 4 digits offset days，hh is 2 digits offset hours | |
| Description | AC,132,230,1,1,0,0,^D+0005.12 | After 5 days and 12 hours |

4. Time offset function

| | | |
|---|---|---|
| Syntax | ^T+hhh.mm | |
| Parameter | hhh is 3 digits offset hours，mm is 2 digits offset minutes | |
| Example | AC,410,230,1,1,0,0,^T+012.30 | After 12 hours and 30 minutes |

5. Setting Print darkness

| | |
|---|---|
| Syntax | ^Hx |
| Parameter | X = 00 ~ 19 |
| Description | Set printing darkness. |

6. Number of pages printed

| | |
|---|---|
| Syntax | ^Px |
| Parameter | x = 1 ~ 32767 |
| Description | Set how many labels to print; and it will initiate the program. |

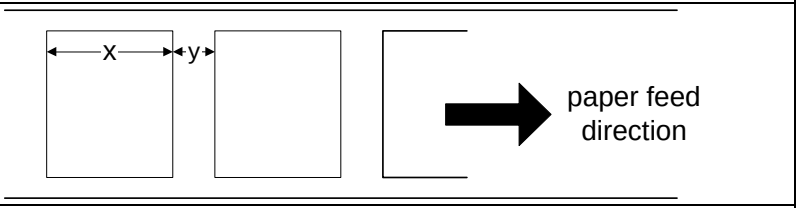
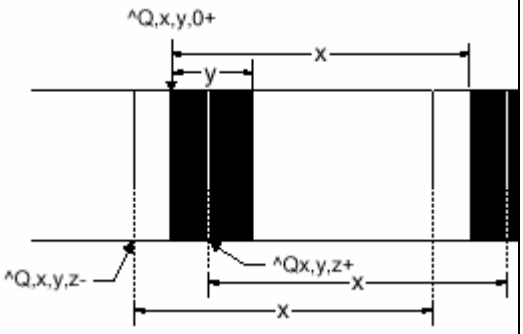
7. Auto Print

| | | |
|---|---|---|
| Syntax | ^PAn | |
| Parameter | n=1~30000 | |
| Description | After recall the label, printer will read variable and serial No and then auto print for set pieces | |
| | ^Flabel1<br>^Q40,0,0<br>^PA3<br>^L<br>C0,0000001,+1,Counter<br>V00,15,Variable<br>AF,108,140,1,1,0,0,^C0<br>AE,122,278,1,1,0,0,^V00<br>E<br><br>^Klabel1<br>00001<br>Variable | Printer will auto print 3 pieces. |

8. limitless print

| | | |
|---|---|---|
| Syntax | ^PI | |
| Parameter | None | |
| Description | ^Flabel2<br>^Q40,0,0<br>^PI<br>^L<br>C0,0000001,+1,Counter<br>V00,15,Variable<br>AF,108,140,1,1,0,0,^C0<br>AE,122,278,1,1,0,0,^V00<br>E<br><br>^Klabel2<br>00001<br>Variable | Printer will print immediately, until press cancel or close printer. |

9. Label length

| | | |
|---|---|---|
| Syntax | ^Qx,y(,z±) | |
| | Die cut label：(See fig. 1)<br>x = Label length (unit : mm)<br>y = Gap length (mm) | |
| Parameter | EX.<br>^Q25,3<br>(x=25,y=3) mm |  |
| | Plain paper:<br>x = Label length (unit : mm)<br>y = 0 (constant)<br>z = Feed paper length (unit : mm) | |
| | Black mark label:<br>x = Label length (unit : mm)<br>y = Black mark width (mm)<br>z = Black line to top of form position.<br>z+ : When the position is outside the black mark.<br>z- : When the position is within the black mark. | |
| | EX.<br><br>^Q25,4,3+<br>(x=25, y=4, z=3+) mm<br><br>^Q25,4,3-<br>(x=25, y=4, z=3-) mm |  |
| Description | Set label size (length, gap length, [plain paper feed length]) | |

10. Speed setting

| | |
|---|---|
| Syntax | ^Sx |
| Parameter | x=1 to 6 (inch/sec) |
| Description | Set printing speed |

11. Number of copies per label

| | |
|---|---|
| Syntax | ^Cx |
| Parameter | X = 0 ~ 32767 |
| Description | Number of copies of the same label. |

12. Row column adjustment

| | |
|---|---|
| Syntax | ^Rx |
| Parameter | x = 0 ~ 399 dots |
| Response | None |
| Description | Set left margin |

13. Label format begin sign

| | |
|---|---|
| Syntax | ^L |
| Parameter | None |
| Descripton | Set label begin sign |

14. Stripper sensor

| | |
|---|---|
| Syntax | ^Ox |
| Parameter | x = 0 , stripper disable.<br>x = 1 , stripper enable |
| Description | Enable or disable the stripper sensor. When you use this command, it should be matched with^Ex. (refer page24) |

15. Download label format

| | |
|---|---|
| Syntax | ^Fname<br>data |
| Parameter | Name = name of label format (up to 20 characters)<br>Data = the data containing the label formatting command for this stored format |
| Description | Download label format into memory. After the download is finished, the printer will beep once (refer page26).<br>**^Fname**<br>**:** } Control/Setup command<br>**:**<br>data { **^L**<br>**:** } Label format command<br>**:**<br>**E**<br>Same name inspection : If you use the same file name, the printer will print ”REPEAT FILE NAME”, and the download will be not be accepted. |

16. Recall label format

| | |
|---|---|
| Syntax | ^Kname |
| Parameter | Name = name of recall label format (up tp 20 characters) |
| Description | Recall label format from external format (refer page26)<br>**^Kname**<br>**:** } data<br>**:**<br>**E**<br>**:** } Control/Setup command [option]<br>**:**<br>**~Px** |

17. Label width setting

| | |
|---|---|
| Syntax | ^Wx |
| Parameter | x=label width (mm) |
| Description | Label width setting |

18. Number of labels per cut

| | |
|---|---|
| Syntax | ^Dx |
| Parameter | X = 0 , disable cutting.<br>X = 1 ~ 32767 , number of label per cut. |
| Description | Number of labels per cut (refer page24) |

19. Select Code Page 850/852

| | |
|---|---|
| Syntax | ^XSET,CODEPAGE,p1 |
| Parameter | p1: 0-code page 850. 1-code page 852 |
| Description | Can use command or select Keyboard Mode form LCD |

20. Select different area PS2 Keyboard

| | |
|---|---|
| Syntax | ^XSET,KEYBOARD,p1 |
| Parameter | p1: 0-US, 1-UK, 2-French, 3-German, 4-Spanish, 5-Italian, 6-Finnish, 7-Dutch, 8-Belgian |
| Description | Can use command or select Keyboard Mode form LCD |

21. Set remind beep on/off.

| | |
|---|---|
| Syntax | ^XSET,BEEP,n |
| Parameter | n=0 or 1 (0: Turn prompt buzzer off function) |
| Description | Example: download graphic or font.<br>(Error beep still turns up.) |

22. Serial Port translation setting

| | |
|---|---|
| Syntax | ^Yp1.p2,p3,p4 |
| Parameter | p1 : Baud Rate (48 or 96 or 19 or 38) ; 48=4800bps; 96=9600bps; 19=19200bps; 38=38400bps<br>p2 : Parity (N, O, E) ; N=none parity; O=odd parity; E=even parity<br>p3 : Number of data bits (7 or 8)<br>p4 : Number of stop bits (1 or 2) |
| Description | Serial Port translation setting |

23. Set the forward length

| | |
|---|---|
| Syntax | ^Mx |
| Parameter | x = forward length (mm) |
| Description | Set the forward length of the paper |

24. Set the backward length

| | |
|---|---|
| Syntax | ^Bx |
| Parameter | x = backward length (mm) |
| Description | Set the backward length of the paper |

## CONTROL COMMAND

1. Graphic download memory

| | |
|---|---|
| Syntax | ~Ea, name, length |
| Parameters | a = P or p : PCX file<br>a = B or b : BMP file<br>name : Name of image (up to 20 character)<br>length : Length of image (bytes), maximum 512K byte. |
| Description | Download monochrome image onto memory. Printer will beep 1 time after completely downloaded. If you use the same file name, the printer will show"REPEAT FILE NAME", and the download will be not be accepted (refer page26). |

2. Bit-Mapped font download

| | | |
|---|---|---|
| Syntax | ~Jn | |
| Parameters | n = character; From a ~ z or A ~ Z; at least up to 26 characters. | |
| Description | The command used for font loading is usually generated by Qlabel-III label creation software. The printer will beep once after downloaded. If you use the same file name, the printer will show"REPEAT FILE NAME", and the download will be not being accepted. The downloaded font is compatible with the HP Laser Jet II Plus (PCL-4). | |
| Example | Download the "HVR0OE1A.SFP" text file to external memory card. Use "A" to do the character code name. | |
| | ~JA | ; Define A as HVR0OE1A.SFP |
| | COPY HVR0OE1A.SFP PRN/B | ; Send the order with the DOS mode |

3. Graphic mode

| | |
|---|---|
| Syntax | ~G |
| Parameter | None |
| Decription | Printer is in the image-receiving mode. Image data is directly sent from host to the printing buffer (refer page25) |

4. Print last label

| | |
|---|---|
| Syntax | ~Px |
| Parameter | x = 1 ~ 32767 |
| Description | This command will repeatedly print the indicated copies of the last label format. |

5. Print Self-Test page

| | |
|---|---|
| Syntax | ~V |
| Parameter | None |
| Description | Print Self-Test page. |

6. Date/Time setting

| | | |
|---|---|---|
| Syntax | ~Dm,d,y,h,I,s | |
| Parameter | m = Month (01 to 12)<br>d = Date (01 to 31)<br>y = Year (last two digits of year) | h = Hour (00 to 23)<br>i = Minutes (00 to 59)<br>s = Seconds (00 to 59) |
| Description | Set real time clock. | |

7. Reset printer

| | |
|---|---|
| Syntax | ~Z |
| Parameter | None |
| Description | Reset the printer, the LED will flash once. |

8. Printer head testing

| | |
|---|---|
| Syntax | ~T |
| Parameter | None |
| Description | Print a pattern for the user to determine if the print head is damaged (refer page27) |

9. Clear all

| | |
|---|---|
| Syntax | ~MDEL |
| Parameter | none |
| Description | Clear all in the memory (not include Asia font) |

10. Delete specific file from printer memory

| | | |
|---|---|---|
| Syntax | ~MDELx,name | |
| Parameter | x= D, database name<br>A, Asia font<br>E, Bit-Mapped font<br>F, label form<br>G, graphic<br>T, text<br>name: The name of the graphic, form or Bit-Mapped font.<br>*Note: The 'name' of Asia font is font ID. | |
| Description | Able to delete individual files or erase entire flash memory. | |
| Example | ~MDELG,Bus | ; the graphic "Bus" will be deleted |
| | ~MDELD,customer | ; the database "customer" will be deleted |

11. Display the memory state

| | |
|---|---|
| Syntax | ~MDIR |
| Parameter | None |
| Description | Show the memory state |
| Example | |

12. Save the TXT. file to printer

| | |
|---|---|
| Syntax | ~MSETT,name<CR>nnnnnnnn<data> |
| Parameter | name= the name of saved<br>nnnnnnnn= data size (8 digits)<br>data= data of saved |
| Description | Save the TXT. file to printer |

13. Read saved file

| | |
|---|---|
| Syntax | ~MGETT,name<CR> |
| Parameter | name= the name of saved |
| Description | Read the saved file from printer |
| Example | Use "~MSETT,text1<CR>00000015Text file test2" to save data to printer.<br><br>Then use "~MGETT,name<CR>" command to read saved data<br><br>Example:<br>~MGETT,text1<br><br>Hyper Terminal will show:<br>Text file test2 |

14. Immediate response command

| | | |
|---|---|---|
| Syntax | ~S,CHECK | |
| Parameter | None | |
| Description | Response message:<br>00 – Ready 01 – Paper out<br>02 – Paper jam or miss gap<br>03 – Ribbon out 04 – Print head is up<br>05 – Rewinder full 06 – Memory is full<br>07 –filename can not be found 08 – filename is repeat<br>09 – Syntax error 20 – Pause<br>21 – In Setting Mode<br>22 – In Keyboard Mode<br>50 – Printer is printing.. | ^XSET,IMMEDIATE,n<br>(n:0 OFF，n:1 ON)<br>(default: 1) |

15. Rotate printing

| | |
|---|---|
| Syntax | ~Rx |
| Parameter | x = label width; from 1 to 104 (mm) |
| Description | Rotate the label format 180-degrees when printing (refer page26). To return to the original print direction, set the x value greater than 104 (ie. ~R105). |

16. Print the available space and data name in the memory

| | |
|---|---|
| Syntax | ~Xn |
| Parameter | n = 1, print label format names and available space in memory.<br>n = 2, print graphic names and available space in memory.<br>n = 3, print Bit-Mapped font names and available space in memory.<br>n = 4, print the name of the label formats, graphics, fonts, and available space in memory.<br>n = 5, print Asia font names and available space in memory |
| Description | Print the available space in the memory card (unit: bytes) |

17. Acknowledge from RS-232

| | |
|---|---|
| Syntax | ~Kn |
| Pararmeter | n = 0, disable.<br>n = 1, enable. |
| Return value | Y↵ |
| Description | Acknowledge a “Y (0D0A)” from RS-232 back to host each printing label. |

18. Row Offset Adjustment

| | |
|---|---|
| Syntax | ~Q±n |
| Pararmeter | n=-36 ~ +36 |
| Return value | none |
| Description | If the printing doed not appear in the same place on every label, this command instructs the printer to print label formats +n increments above the position the format specifies, and –n decrements below the position the format specifies. |

19. Download dBase III to Printer

| | |
|---|---|
| Syntax | ~L,DBASE,p1,p2<br>data… |
| Parameter | p1: database name<br>p2: database size (unit: byte) |
| Example | ~L,DBASE,customer,364<br>…(Data of customer.dbf) |

20. Analogue press FEED key

| | |
|---|---|
| Syntax | ~S,FEED |
| Parameter | None |

21. Print database information in memory

| | |
|---|---|
| Syntax | ~X7 |
| Parameter | None |
| Description | Print database information in memory |

22. Open database

| | |
|---|---|
| Syntax | FILEDB,OPEN,p1 |
| Parameter | P1:database name |
| Description | It could open only one database per label. |
| Example | FILEDB,OPEN,customer |

23. Move data record

| | | |
|---|---|---|
| Syntax | FILEDB,MOVE,p1 | |
| Parameter | p1:Move method<br>Number, or (FIRST, LAST, NEXT, PRIOR) | |
| Description | It could use variable or counter to instead of P1 | |
| Example | FILEDB,MOVE,3<br>FILEDB,MOVE,FIRST<br>FILEDB,MOVE,NEXT | Move to third record<br>Move to first record<br>Move to next record |

24. Searching

| | | |
|---|---|---|
| Syntax | FILEDB,FIND,p1,p2 | |
| Parameter | P1:Filed name<br>P2:Compare data | |
| Description | It could use variable to instead p2 | |
| Example | FILEDB,FIND,NAME,John<br>FILEDB,FIND,NAME,V01 | Find John's data<br>Use variable instead compare data |

25. dBase data substitute Variable print

| | | |
|---|---|---|
| Syntax | V#LINKDB,p1,p2 | |
| Parameter | P1:Field name<br>P2:Variable | |
| Example | V#LINKDB,ADDR,V00<br>AC,22,25,1,1,0,0,^V00 | Link V00 to ADDR field and print it out. |

## Label formatting commands

1. Define date layout

| | |
|---|---|
| Syntax | Daa\|bb\|cc |
| Parameter | aa = Year<br>y2 : Year with two digits (such as 97)<br>y4 : Year with four digits ( such as 1997)<br>bb = Month<br>me : Month in letters (JAN, FEB, .... )<br>mn : Month in numeric (01, 02, .... )<br>cc = 2 digits day<br>\| = Separator, can be any ASCII character between decimal 32 to 63. |
| Description | Define the date layout for print out |

2. Serial number setting

| | | |
|---|---|---|
| Syntax | Cx,ys,±value,prompt | |
| Parameter | x: 0 to 9(up to10group), maximum combination up to 3 groups.<br>y: select the decimal<br>y = none, Decimal (0~9)<br>y = A, Hexadecimal (0~9,A~F)<br>y = C, 0~9, A~Z<br>s: start value of serial variable (up to 13-digit)<br>±value: inc. / dec. value of serial variable (up to 12-digit)<br>prompt: prompt of serial variable (up to 20 characters) | |
| Description | Set the serial number (refer page25) | |
| Example | ^Q50,0,0<br>^W100<br>^S6<br>^H10<br>^E12<br>^P5<br>^L<br>C0,000,+1,AA<br>C1,AEE,+1,BB<br>C2,CZYY,+1,CC<br>AC,5,5,1,1,1,0,^C0^C1^C2<br>E | Printing result:<br><br>000EEZYY<br>001EFZYZ<br>002F0ZZ0<br>003F1ZZ1<br>004F2ZZ2 |

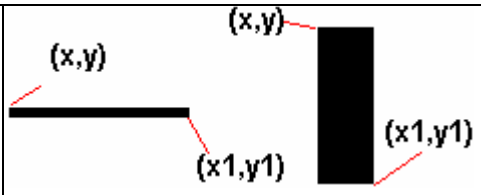
3. Terminate label formatting mode and print label

| | |
|---|---|
| Syntax | E |
| Parameter | None |
| Description | End of formatting command; printer will print label after receiving this command. |

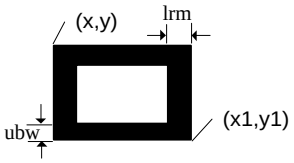
4. Graphic command

| | |
|---|---|
| Syntax | Gwxxx |
| Parameter | wxxx...<br>w : byte number of image data xxx...: image data |
| Description | This command is a sub-command of ~G It is sent by binary data. W is the digits number byte of image data (refer page26). For example, if the image file is 50 bytes, the command is G2xxx . (2: ASCII is 50 decimal) |

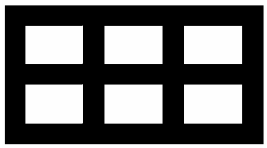
5. Line command

| | | |
|---|---|---|
| Syntax | La,x, y, x1, y1 | |
| Parameter | a = o, overwrite line<br>a = e, exclusive or line<br>x : left-up; per horizontal(Hori.) pos. (dot; 1mm= 8dots)<br>y : left-upper vertical (Vert.) pos. (dots)<br>x1: right-bottom Hori. Pos. (dots)<br>y1: right-bottom Vert. Pos. (dots) |  |
| Description | Define a line to render in the label (refer page23)<br>** The diagonal line draw is not available ** | |

6. Rectangle

| | | |
|---|---|---|
| Syntax | Rx, y, x1,y1, lrw, ubw | |
| Parameter | x : left-upper Hori .pos. (dots)<br>y : left-upper Vert. Pos. (dots)<br>x1 : right-bottom Hori. Pos. (dots)<br>y1 : right-bottom Vert. Pos. (dots)<br>lrw : thickness of left, right border (dots)<br>ubw : thickness of upper bottom border (dots) |  |
| Description | Draw a rectangle in the label (refer page23) | |

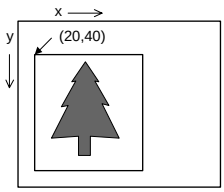
7. Table

| | | |
|---|---|---|
| Syntax | Hx,y,row_count,col_count,row_width,col_width,line_width | |
| Parameter | x : left-upper Hori .pos. (dots)<br>y : left-upper Vert. Pos. (dots)<br>row_count : numbe of rows<br>col_count : number of columns<br>row_width : row width<br>col_width : column width<br>line_width : line width |  |
| Description | Draw a table in the label. | |
| Example | H20,20,2,3,30,20,10 | |

8. Define time layout formatting

| | |
|---|---|
| Syntax | Th\|m\|s |
| Parameter | h = Hour format ( 2 digits, 00 ~ 23)<br>m = Minute format ( 2 digits, 00 ~ 59)<br>s = Second format (2 digits, 00 ~ 59)<br>\| = Separator (It can be any separator between dec. 32 to 63 of ASCII). |
| Descripton | Define the time layout for internal real-time clock (refer page22) |

9. Graphics

| | | |
|---|---|---|
| Syntax | Yx, y, name | |
| Parameter | x : Hori. Pos. of left-upper of graphics (dots)<br>y : Vert. Pos. of left-upper of graphics (dots)<br>name : Name of graphics download | |
| Description | This command is print a graphic that has been previously stored in printer memory (refer page 26) | |
| | Example:<br>A graphic in printer named “Graphic1”, command Y20, 40; Graphic1 ↵ will put this graphic into label at position (20, 40). |  |

10. Text

| | | | |
|---|---|---|---|
| Syntax | At, x, y, x_mul, y_mul, gap, rotation, data | | |
| Parameter | t :Font(A~H for Code page 850; I for ASCII) | | |
| | Font | Points | Font style |
| | A | 6 | CG Triumvirate |
| | B | 8 | CG Triumvirate |
| | C | 10 | CG Triumvirate |
| | D | 12 | CG Triumvirate |
| | E | 14 | CG Triumvirate |
| | F | 18 | CG Triumvirate |
| | G | 24 | CG Triumvirate |
| | H | 30 | CG Triumvirate |
| | I | 16x26 dots for US ASCII 8 bit | |
| | K | OCR-B font | |
| | L | OCR-A font | |
| | | | |
| | t = Zn | Asia font from 1 to 4 | |
| | x : Hori of left-bottom position of text (unit : dot, 1 mm = 8 dots)<br>y : Vert of left-bottom position of text (unit : dot, 1 mm = 8 dots)<br>x_mul : Horizontally magnified up to 8 times as large<br>y_mul : Vertically magnified up to 8 times as large<br>gap : Distance of the character (unit : dot, 1 mm = 8 dots)<br>rotation : The rotation of ASCII text from 0 to 3, the Asian text rotation form 0 to 7<br>0) 0° 1) 90° 2) 180° 3) 270° 4) 0° 5) 90° 6) 180° 7) 270°<br>data : Data string | | |
| | 1.Constant<br>2.Date information (^D)<br>3.Time information (^T) | 4.Serial variable (^Cx)<br>5.Variable data (^Vxx) | |
| Description | Prints an ASCII or ASIA text string (refer page22). The ASCII text oriented form left to right, the Asian text from left to right or top to bottom. | | |

11. Barcode

| | | | | |
|---|---|---|---|---|
| Syntax | Bt,x,y,narrow,wide,height,rotation,readable,data | | | |
| Parameter | t : bar-code type | | | |
| | A | Code 39 | L | UPC E - Add ON 2 |
| | A2 | Code 39 with check digit | M | UPC E - Add ON 5 |
| | B | EAN 8 | N | I 2 of 5 |
| | C | EAN 8 - Add ON 2 | N2 | I 2 of 5 with check digit |
| | D | EAN 8 - Add ON 5 | O | Codabar |
| | E | EAN 13 | P | Code 93 |
| | F | EAN 13 – Add ON 2 | Q | Code 128 (auto subset A/B/C) |
| | G | EAN 13 – Add ON 5 | Q2 | Code 128 (subset A/B/C) |
| | H | UPC A | R | UCC 128 |
| | I | UPC A - Add ON 2 | S | Post NET |
| | J | UPC A - Add ON 5 | T | DUN 14 ONLY 90 |
| | K | UPC E | U | EAN 128 |
| | | | V | RPS 128 |
| | x : Hori. of left-bottom pos. of barcode (unit: dot, 1 mm = 8 dots)<br>y : Vert. Of left-bottom pos. of barcode (unit: dot, 1 mm = 8 dots)<br>narrow (x dimension): narrow bar from 1 ~ 10 dots (0.125 ~ 1.25 mm)<br>** DUN 14 narrow setting from 5 ~ 8 dots; UPC/EAN narrow setting from 2 ~ 4 dots **<br>wide : wide bar from 2 ~ 30 dots (0.25 ~ 0.5 mm) ; **CODE 39, 93, CODABAR & I 2 of 5**<br>height : height of barcode from 24 ~ 1200 dots.<br>rotation : rotation of barcode (0 ~ 3)<br>0) 0° 1) 90° 2) 180° 3) 270°<br>readable :<br>0 – label off<br>1 – below barcode, left.<br>2 – above barcode, left.<br>3 – below barcode, centered.<br>4 – above barcode, centered.<br>data : bar-code data. | | | |
| | 1.Constant<br>2.Date information (^D)<br>3.Time information (^T) | | 4.Serial variable (^Cx)<br>5.Variable data (^Vxx) | |

12. PDF 417

| | |
|---|---|
| Syntax | Px,y,w,h,r,c,ec,len<br>Data |
| Parameters | x : Hori. of left-bottom pos. of barcode ( unit : dots)<br>y : Vert. of left-bottom pos. of barcode (unit : dots)<br>w : Width (x dimension) of the narrowest element (bar or space) in the barcode.<br>h : Height (y dimension) of each barcode row in the symbol.<br>r : number of barcode rows, from 3 to 90. If you key in 0, printer will count all the rows.<br>c : number of barcode columns, from 1 ~ 30. If you key in 0, printer will count the all columns.<br>ec : error correction level: 0 ~ 8.<br>len :number of encoded data bytes, including carriage returns ↵ and line feed.<br>Data : data to be encoded(the length of the data is equal to len; up to 1024 characters) |
| Description | Print a 2 dimensional PDF417 code (refer page23) |

13. Maxicode

| | |
|---|---|
| Syntax | Mx, y, sno, nos, mode, ccode, zip, class, rotation, message |
| Parameter | x : Hori. of left-bottom pos. of barcode (unit: dots).<br>y : Vert. of left-bottom pos. of barcode (unit: dots).<br>sno : symbol number, in set of symbols：1 ~ 8.<br>nos : number of symbols in set of symbols：1 ~ 8 sets.<br>mode : mode of maxicode 2, 3, 4 or 6.<br>Ccode : 3 digits country code.<br>zip : postal code<br>9 digits for US style postal code. If there is a 5 digits zip code, 4 zeros must be padded<br>6 digits alphanumeric zip code for non-US style postal code.<br>class : service class, 3 digits numeric.<br>rotation : rotation of barcode (0 : 0°).<br>message : 1 ~ 84 characters. |
| Description | Print a 2 dimensional Maxicode (refer page23) |

14. DataMatrix Code

| | |
|---|---|
| Syntax | Xp1, p2, p3, data |
| Parameters | p1 : Hori. of left-bottom pos. of barcode ( unit : dots).<br>p2 : Vert. of left-bottom pos. of barcode (unit: dots).<br>p3 : Engrge the DataMatrix Code 8 times (horiqontally and vertically).<br>data : bar-code data (up to 500 characters). |
| Description | User defined variable field setting (refer page 24) |

15. Define variable field

| | |
|---|---|
| Syntax | Vxx, length, prompt |
| Parameters | xx = from 00 ~ 29<br>length = number of characters (up to 98characters).<br>prompt = prompt of variable (maximum up to 20 characters) |
| Description | User defined variable field setting (refer page27) |

16. Variable for left, center, right in length of appoint

| | |
|---|---|
| Syntax | Vxx,length,prompt,jnl |
| Parameter | j=Justification option<br>n=l(for left), c(for center), r(for right)<br>l=the length of entire string in millimeters |
| Description | Variable arrangement by appoint setting |

17. Variable Addition

| | | |
|---|---|---|
| Syntax | V#OP+,p1,p2,p3 | |
| Parameters | None | |
| Description | Please refer to P28 | |
| Example | V#OP+,V00,V01,V02 | |

18. Variable Subtraction

| | | |
|---|---|---|
| Syntax | V#OP-,p1,p2,p3 | |
| Parameters | None | |
| Description | Please refer to P28 | |
| Example | V#OP-,V00,V01,V02 | V00=V01-V02 |

19. Variable Multiplication

| | | |
|---|---|---|
| Syntax | V#OP*,p1,p2,p3 | |
| Parameters | None | |
| Description | Please refer to P28 | |
| Example | V#OP*,V00,V01,V02 | V00=V01*V02 |

20. Variable Division

| | | |
|---|---|---|
| Syntax | V#OP/,p1,p2,p3 | |
| Parameters | None | |
| Description | Please refer to P28 | |
| Example | V#OP/,V00,V01,V02 | V00=V01/V02 |

21. Variable Remainder

| | | |
|---|---|---|
| Syntax | V#OP%,p1,p2,p3 | |
| Parameters | None | |
| Description | Please refer to P28 | |
| Example | V#OP/,V00,V01,V02 | V00=V01%V02 |

22. Disable variable prompt

| | | |
|---|---|---|
| Syntax | V#SET,UNPROMPT,p1 | |
| Parameters | None | |
| Description | Please refer to P28 | |
| Example | V#OP+,V00,V01,V02<br>V#SET,UNPROMPT,V00 | V00 does not need input from user |

23. Add moduls 10 check code

| | | |
|---|---|---|
| Syntax | V#ADDCHKSUM,Vnn | |
| Parameters | None | |
| Description | Add modulus 10 check code to variable | |
| Example | Add ,pfi;id 10 check code to V00<br><br>~MDELF,test<br>^Ftest<br>^Q60,0,0<br>^L<br>V00,16,PromptV00<br>V#ADDCHKSUM,v00<br>AE,47,57,1,1,0,0,Date:^V00<br>E<br><br>^Ktest<br>111222333<br>E<br>~P1 | Print result<br><br>Enter Variable value<br>111222333<br><br>Print result<br>1112223332 |

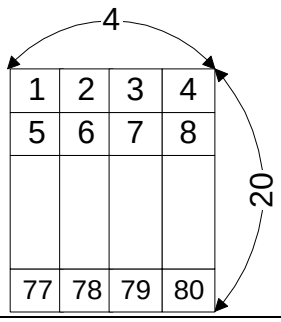
24. Copy all of variable data

| | | |
|---|---|---|
| Syntax | V#STRCPY,Vnn,Vmm | |
| Parameters | None | |
| Description | Copy all of Vmm data to Vnn | |
| Example | V#STRCPY,V00,V01 | Copy all of V00 data to V01 |

25. Copy part of Variable value

| | | |
|---|---|---|
| Syntax | V#STRSUB,Vnn,Vmm,first,length | |
| Parameters | None | |
| Description | Copy part of Vmm value to Vnn | |
| Example | Copy year, month and day data form date variable.<br><br>~MDELF,test<br>^Ftest<br>^Q60,0,0<br>^L<br>V00,16,PromptV0<br>V01,16,PromptV1<br>V02,16,PromptV2<br>V03,16,PromptV2<br>V#STRSUB,V01,V00,5,2<br>V#STRSUB,V02,V00,8,2<br>V#STRSUB,V03,V00,0,4<br>V#SET,UNPROMPT,V01<br>V#SET,UNPROMPT,V02<br>V#SET,UNPROMPT,V03<br>AE,47,57,1,1,0,0,Date:^V00<br>AE,38,115,1,1,0,0,Month:^V01<br>AE,38,155,1,1,0,0,Day:^V02<br>AE,38,205,1,1,0,0,Year:^V03<br>E<br><br>^Ktest<br>2005/01/31<br>E<br>~P1 | Print result:<br><br>Date:2005/01/31<br>Month:01<br>Day:31<br>Year:2005 |

26. Pattern command

| | | |
|---|---|---|
| Syntax | Qx, y, width, height<br>Data... | |
| Parameters | x = Hori. of left-bottom pos. (unit : dots).<br>y = Vert. of left-bottom pos. (unit : dots).<br>width = width of graphic (unit : byte)<br>height = height of graphic (unit : dots)<br>(data length = width x height) | |
| Description |  | Data send out<br>1 2 3 4 .....77 78 79 80<br><br>width = 4 ; height = 20<br>(data length : 4x20 = 80)<br><br>(refer page26) |

27. Downloading character sets to memory

| | | |
|---|---|---|
| Syntax | Vt, x, y, x_mul, y_mul, gap, rotation, data | |
| Parameter | t: arbitrary name of font; from a ~ z (or A ~ Z) | |
| Description | Download Bit-Mapped font to memory. All the parameters are the same as the text command | |
| Example | VA,5,10,1,1,1,0,data | ;The arbitrary name of font “A” |

## 1-3. Barcode

| CODE | SAMPLE | CODE | SAMPLE |
|---|---|---|---|
| Code 39 | CODE39 | UPC E Add on 2 | 0 234567 3 12 |
| EAN 8 | 1234 5670 | UPC E Add on 5 | 0 234567 3 12345 |
| EAN 8 Add on 2 | 1234 5670 12 | I 2 of 5 | 4321 |
| EAN 8 Add on 5 | 1234 5670 12345 | CODABAR | ABCD |
| EAN 13 | 1 234567 890128 | Code 93 | CODE 93 |
| EAN 13 Add on 2 | 1 234567 890128 12 | Code 128 | CODE 128 |
| EAN 13 Add on 5 | 1 234567 890128 12345 | EAN 128 | EAN 128 |
| UPC A | 1 23456 78901 | MAXICODE | |
| UPC A Add on 2 | 1 23456 78901 2 12 | PDF 417 | |
| UPC A Add on 5 | 1 23456 78901 2 12345 | UPC E | 0 234567 3 |
| DataMatrix Code | | | |

# 2. Examples

## How to construct a label using EZ-Series command

To create a label, it must be an order command combination.

| | |
|---|---|
| Control command<br>And<br>Setup up command | |
| ^L | ^L is precedent for the beginning of label format |
| Label format command | Label format command must be included between the ^L and E command |
| E | E is ending of label format |

** Control or setup commands to be used in the label command area will be ineffective.

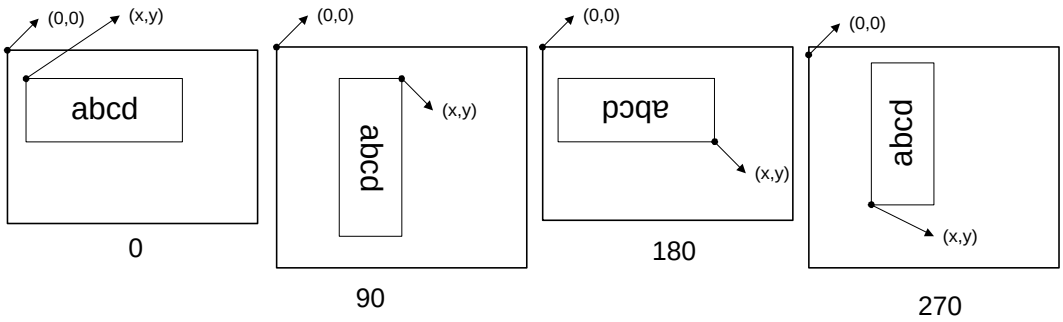
## Example:

The following program example is printing a label with EAN8. Program is a text file. No matter what language you use in programming, simply send out the text file of the contents and you can control what the EZ-Series prints. Save the following contents (command file named: EX1.TXT).

| Program command | Description |
|---|---|
| ^Q25,3 | Setting up the height 25mm, gap 3mm |
| ^W32 | Setting up the width 32mm |
| ^H10 | Setting up the darkness 10 |
| ^S6 | Setting up the speed 6 inches per second |
| ^P1 | Setting up the number of printing 1 |
| ^E10 | Setting up the paper advance length to 10 mm from the print head after printing. The label will move back 10 mm when the next label is printed. |
| ^C1 | Setting up the number of copies (start value is 1) |
| ^O0 | Setting up the auto stripper function to be turned OFF |
| ^R0 | Setting up the left margin 0 dot |
| ^D0 | Turning the cutting function off |
| ^L | The label content of start symbol |
| BB,42,39,2,5,100,0,1,1234567 | Select EAN8 label, data content is 1234567(See Charapter 2 section 2) |
| E | Label content of stop symbol |

The label can be created by the following MS-DOS command:
C:\>COPY EX1.TXT PRN↵
To send the label to serial port by the following MS-DOS command:
C:\>MODE COM1 96,N,8,1
C:\>TYPE EX1.TXT >> COM1

## Setting the x and y values:



## 1. Text

| Example | Result | Rotate printing | Result |
|---|---|---|---|
| ^Q50,0,2<br>^W50<br>^S6<br>^H10<br>^R10<br>~D8,27,00,8,39,36<br>^L<br>AC,10,10,1,1,1,0,PRINTER<br>AC,10,50,1,1,1,0,^D<br>AC,10,100,1,1,1,0,^T<br>E | PRINTER<br>AUG/27/00<br>08:39:36 | ^Q50,0,0<br>^W50<br>^S6<br>^H10<br>^L<br>AC,100,30,1,1,1,0,ROTATION 0<br>AC,40,20,1,1,1,1,ROTATION 90<br>AC,260,150,1,1,1,2,ROTATION 180<br>AC,290,200,1,1,1,3,ROTATION 270<br>E | ROTATION 0<br>ROTATION 90<br>ROTATION 180<br>ROTATION 270 |
| **Adjusting the character spacing** | **Result** | **Asia Font** | **Result** |
| ^Q30,0,0<br>^W50<br>^S6<br>^H10<br>^L<br>AC,10,10,1,1,10,0,PRINTER<br>AC,10,100,1,1,1,0,PRINTER<br>E | P R I N T E R<br>PRINTER | ^L<br>AZ,100,12,1,1,0,4,中文<br>AZ,220,50,1,1,0,5,中文<br>AZ,75,83,1,1,0,6,中文<br>AZ,121,144,1,1,0,7,中文<br>E | 中文<br>中文<br>中文<br>中文 |

- The data output is a default setting and user can change it with ~D command (refer page13).
- The time output format is a default setting and user can change it with T command.

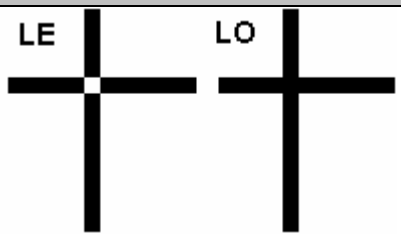
## 2. Barcode

| Example | Result | Rotation of barcode | Result |
|---|---|---|---|
| ^H10<br>^S6<br>^Q30,0,2<br>^W60<br>^L<br>BB,20,100,3,3,100,0,1,1234567<br>E | 1234 5670 | ^H10<br>^S6<br>^W25<br>^Q30,0,2<br>^L<br>BE,100,20,2,4,80,1,1,123456789012<br>E | 1 234567 890128 |

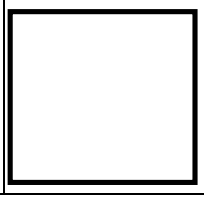
## 3. RTC Setting

| Change the date formatting | Result |
|---|---|
| Dy4-me-dd | 2000-MAY-29 |
| Dy4/mn/dd | 2000/05/29 |
| Dmn\|dd\|y4 | 05\|29\|2000 |
| Dy4 | 2000 |
| Dme | MAY |
| Ddd | 09 |
| Dy4,me | 2000-MAY |
| Dme-dd | MAY-29 |

### 4. Line printing

| Example | Description | Result |
|---|---|---|
| ^Q50,3<br>^W100<br>^E32<br>^H7<br>^P1<br>^S6<br>^L<br>LO,212,45,311,53<br>LO,244,11,252,128<br>LE,34,43,149,51<br>LE,72,8,80,121<br>E | ; Darkness= 6<br>; Speed = 2 inch/second<br>; Label height = 50mm, gap = 2 mm<br>; Label width = 60mm<br><br><br>; (x,y)=(10,10), (x1,y1)=(60,200)<br><br>; (x,y)=(100,10), (x1,y1)=(400,200) |  |

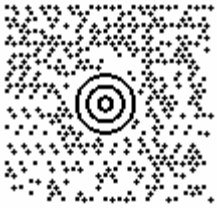
### 5. Rectangle printing

| Example | Descripton | Result |
|---|---|---|
| ^H10<br>^S6<br>^Q50,2<br>^W70<br>^L<br>R20,20,120,120,8,8<br>E | ; Darkness = 4<br>; Speed = 2 inch/second<br>; Label height = 50mm, gap = 2 mm<br>; Label width= 70mm<br>; (x,y) = (20,20),<br>(x1,y1) = (120,120)<br>lrw = 8 dots, ubw = 8 dots |  |

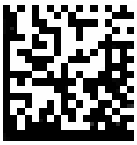
### 6. PDF417

| Example | Result |
|---|---|
| ^Q50,0,3<br>^W70<br>^S6<br>^H10<br>^L<br>P30,20,3,3,3,3,1,100<br>12345678<br>12345678<br>12345678<br>12345678<br>12345678<br>12345678<br>12345678<br>12345678<br>12345678<br>12345678<br>E | |

### 7. Maxicode

| Example | Result |
|---|---|
| ^Q50,0,0<br>^W70<br>^S6<br>^H10<br>^L<br>M30,20,1,1,2,840,068107317,8,0,123456<br>E |  |

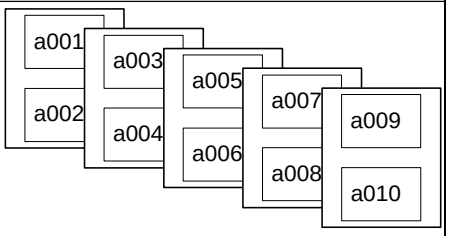
### 8. DataMatrix Code

| Example | Result |
|---|---|
| ^Q50,0,3<br>^W90<br>^S6<br>^H10<br>^L<br>X30,20,5,12345678901234567890123456789 0<br>E |  |

### 9. Stripper setting

| Example | Result |
|---|---|
| ^Q50,2<br>^W50<br>^S6<br>^O1<br>^E10<br>^P1<br>^H10<br>^L<br>AD,20,20,1,1,3,0,Stripper Function<br>E | ; Label height= 50mm, gap= 2mm<br>; Label width= 50mm<br>; Speed =2 inch/second<br>; Stripper enable<br>; Set stop position to 10 mm<br>; Printing one label<br>; Darkness = 5<br>; Label format begin sign<br><br>; Label format end and begin print |

### 10. Cutter setting

| Example | Description | Result |
|---|---|---|
| ^Q20,0,0<br>^H5<br>^S2<br>^P10<br>^D2<br>^C1<br>^L<br>R10,10,120,90,2,2<br>C0,001,+1,A1<br>AC,20,30,1,1,1,0,a^C0<br>E | ;plain paper length:20mm<br>feed label length :0mm<br><br>;print 10 labels<br>;2 labels per cut |  |

## 11. Serial number

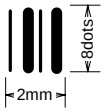
| TEXT | | | |
|---|---|---|---|
| **Example 1** | **Result** | **Example 2** | **Result** |
| ^Q10,0,0<br>^W30<br>^S6<br>^H10<br>^P10<br>^L<br>C0,0000,+2,A1<br>AB,10,10,1,1,2,0,^C0<br>E | 0000<br>0002<br>0004<br>0006<br>0008<br>0010<br>0012<br>0014<br>0016<br>0018 | ~P10<br><br>If you want to continue printing 10 more serial numbers starting from 0018, enter the command “~P10”. With this command you do not have to re-enter all the prior specifications. | 0018<br>0020<br>0022<br>0024<br>0026<br>0028<br>0030<br>0032<br>0034<br>0036 |
| **Example 3** | **Result** | **Example 4** | **Result** |
| ^Q10,0,0<br>^W30<br>^S6<br>^H10<br>^P4<br>^C2<br>^L<br>C0,0000,+2,A1<br>AB,10,10,1,1,2,0,^C0<br>E | 0000<br>0000<br>0002<br>0002<br>0004<br>0004<br>0006<br>0006 | ^Q10,0,0<br>^W30<br>^S6<br>^H10<br>^P8<br>^L<br>C0,0000,+2,A1<br>AB,10,10,1,1,2,0,abc^C0def<br>E | abc0000def<br>abc0002def<br>abc0004def<br>abc0006def<br>abc0008def<br>abc0010def<br>abc0012def<br>abc0014def |

| Barcode | |
|---|---|
| **Barcode with serial number** | **Result** |
| ^H10<br>^S6<br>^Q20,0,2<br>^W50<br>^P10<br>^L<br>C0,000,-1,A3<br>BE,20,100,3,3,100,0,1,111111^C0111<br>E | |

## 12. Graphic driver format

| Example | Description |
|---|---|
| ^Q20,2<br>^W50<br>^R20<br>~G<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<br>E | ; Left margin = 20 dots<br><br>For this example, ASCII “(“ character is 40 decimal (=40 bytes). Total 14 lines, so the graphics height is 1.75mm (14 dots)<br><br>Result<br> |

## 13. Pattern command setting

| Example | Result |
|---|---|
| ^Q,20,0,0<br>^W40<br>^S6<br>^D5<br>^L<br>Q40,10,2,8<br>GGGGGGGGGGGGGGGG<br>E | <br>Length: 2x8=16 |
| **Description** | |
| 0100011101000111<br>0100011101000111<br>0100011101000111<br>0100011101000111<br>0100011101000111<br>0100011101000111<br>0100011101000111<br>0100011101000111<br>HEIGHT = 8 DOTS<br>1 BYTE 1 BYTE<br>WIDTH = 2 BYTES<br>G : 01000111 (binary) |  |

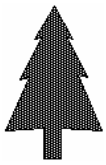
## 14. Rotate label format for printing

| Example | Description | Result |
|---|---|---|
| ^Q40,2<br>^W50<br>^S6<br>^H10<br>~R50<br>^L<br>AC,35,11,1,1,1,0,ROTATE<br>BB,20,45,2,5,50,0,1,1234567<br>E | ; Label size is 40 mm(h) x 50 mm(w); 2 mm gap<br><br>; Rotate the label format 180° for printing | |
| ~R105<br>^L<br>AC,20,10,1,1,1,0,ROTATE<br>BB,20,45,2,5,50,0,1,1234567<br>E | ; Disable the rotate function | |

## 15. Download graphic to printer's memory

Following the below steps to download graphic to printer.

1. Be prepared a graphic file (file name: TREE.PCX, file size: 922 bytes).
2. Be prepared two text files (TEST1.TXTand TEST2.TXT, see the following contents).

| TEST1.TXT | TEST2.TXT | Print Result |
|---|---|---|
| ~EP,TREE,922 | ^Q30,0,0<br>^W50<br>^S2<br>^H5<br>^L<br>Y30,50,TREE<br>E |  |

1. In DOS mode, running the following commands.

COPY TEST1.TXT PRN↵

COPY TREE.PCX PRN/B↵

COPY TEST2.TXT PRN↵

### 16. Download label and variable settings

| Example | Description |
|---|---|
| ^Ftest<br>^Q50,0,15<br>^W70<br>^H10<br>^S6<br>^E12<br>^L<br>C0,0000,+1,serial no.<br>V00,10,name<br>V01,8,barcode<br>V02,6,price<br>AE,108,306,1,1,1,0,$^V02<br>AC,39,27,1,1,1,0,S/N.^C0<br>AD,126,78,1,1,1,0,^V00<br>BA,108,135,2,5,100,0,1,^V01<br>E | ; Download label to memory card and the label name is “test”.<br><br><br><br><br><br><br>; Setting serial number is C0<br>; Setting three variables V00, V01, V02 |

### 17. Recall label format from memory

| Example 1 | Description | Result |
|---|---|---|
| ^Ktest<br>0000<br>Book<br>12345678<br>200.00<br>E<br>~P1 | Recall label format without changing the label format<br>C0 = 0000<br>V00 = book<br>V01 = 12345678<br>V02 = 200.00 | S/N.0000<br>book<br>* 12345678 *<br>$200.00 |
| **Example 2** | **Description** | **Result** |
| ^Ktest<br>1111<br>Pencil<br>12345678<br>100.00<br>E<br>^Q35,0,0<br>^S6<br>^H10<br>~P2 | Recall label format and change label format<br>C0 = 1111<br>V00 = pencil<br>V01 = 12345678<br>V02 = 100.00<br>Changing the size<br>Changing speed to 6”/sec<br>Changing darkness to 10<br>Printing the last label twice | S/N.1111<br>Pencil<br>* 12345678 *<br>$100.00<br><br>S/N.1112<br>Pencil<br>* 12345678 *<br>$100.00 |

Each time you change variable data or label format, repeat to send command from ^Kname to ~Px.

### 18. Print head test & Version list

| Example | Result |
|---|---|
| ~T | |
| ~V | # # # EZ-4206 # # #<br><br># # # VER. X.XX # # # |

## Use variable settings

| | Example | Result |
|---|---|---|
| 1. User input unit price and amount. Printer calculates total price. | ~MDELF,test1<br>^Ftest1<br>^Q60,0,0<br>^P1<br>^L<br>V00,10,Price<br>V01,10,Amount<br>V02,10,Total Price<br>V#OP*,V02,V00,V01<br>V#SET,UNPROMPT,V02<br>AC,30,110,1,1,0,0,Price: ^V00<br>AC,30,189,1,1,0,0,Amount: ^V01<br>AE,30,273,1,1,0,0,Total Price: ^V02<br>E<br><br>^Ktest1<br>100<br>3<br>E<br>~P1 | Price: 100<br>Amount: 3<br>Total Price: 300 |
| 2. Calculation sample | ~MDELF,test2<br>^Ftest2<br>^Q60,0,0<br>^L<br>V00,10,Input V00<br>V01,10,Input V01<br>V02,10,Input V02<br>V03,20,Input V03<br>V04,20,Input<br>V05,20,Input<br>V06,20,Input<br>V#OP+,V02,V01,V00<br>V#OP-,V03,V01,V00<br>V#OP*,V04,V01,V00<br>V#OP/,V05,V01,V00<br>V#OP%,V06,V01,V00<br>V#SET,UNPROMPT,V02<br>V#SET,UNPROMPT,V03<br>V#SET,UNPROMPT,V04<br>V#SET,UNPROMPT,V05<br>V#SET,UNPROMPT,V06<br>AA,47,57,1,1,0,0,V00=^V00<br>AA,47,77,1,1,0,0,V01=^V01<br>AE,38,115,1,1,0,0,V1+V0=^V02<br>AE,38,165,1,1,0,0,V1-V0=^V03<br>AE,38,215,1,1,0,0,V1*V0=^V04<br>AE,38,265,1,1,0,0,V1/V0=^V05<br>AE,38,315,1,1,0,0,V1 MOD V0=^V06<br>E<br><br>^Ktest2<br>10<br>20<br>E<br>~P1 | V00=10<br>V01=20<br><br>V1+V0=30<br>V1-V0=10<br>V1*V0=200<br>V1/V0=2<br>V1 MOD V0 = 0 |

## dBase 3 data setting

Example:
customer.dbf has following data

| NAME | ADDRESS | PHONE |
|---|---|---|
| Tom | Address of Tom | 11111111 |
| Mary | Address of Mary | 22222222 |
| John | Address of John | 33333333 |
| Joe | Address of Joe | 44444444 |
| Bob | Address of Bob | 55555555 |
| Gilbert | Address of Gilbert | 66666666 |

| Example | Description | Result |
|---|---|---|
| ^Q60,0,0<br>^P1<br>^L<br>FILEDB,OPEN,customer<br>V00,10,Prompt0<br>V#LINKDB,PHONE,V00<br>FILEDB,FIND,NAME,Mary<br>AC,79,120,1,1,0,0, Marry's phone: ^V00<br>E | Print out Mary phone number | Marry's phone: 22222222 |
| ^Q60,0,0<br>^P1<br>^L<br>FILEDB,OPEN,customer<br>V00,10,Prompt0<br>V#LINKDB,ADDRESS,V00<br>FILEDB,FIND,NAME,John<br>AC,79,120,1,1,0,0, ^V00<br>E | Print out John Address | Address of John |
| ^Q60,0,0<br>^P1<br>^L<br>FILEDB,OPEN,customer<br>V00,10,Prompt<br>V#LINKDB,NAME,V00<br>FILEDB,MOVE,LAST<br>AC,79,120,1,1,0,0,Last Name is ^V00<br>E | Print out last person name | Last Name is Gilbert |
| ^Q60,0,0<br>^P1<br>^L<br>FILEDB,OPEN,customer<br>V00,10,Prompt<br>V#LINKDB,NAME,V00<br>FILEDB,MOVE,2<br>AC,79,120,1,1,0,0,Second Name is ^V00<br>E | 4.Print second person name | Second Name is Mary |

| | | |
|---|---|---|
| ^Q60,0,0<br>^P3<br>^L<br>FILEDB,OPEN,customer<br>C0,1,+1,DB Move C<br>V00,10,name<br>V01,10,phone<br>V#LINKDB,NAME,V00<br>V#LINKDB,PHONE,V01<br>FILEDB,MOVE,C0<br>AC,79,120,1,1,0,0,^V00 Phone is ^V01<br>E | Print first, second and third person phone number | Tom Phone is 11111111<br>Mary Phone is 22222222<br>John Phone is 33333333 |

# Appendix.

## A. Barcode Details

### 1. Code 128

### BQ2, X, Y, NARROW, WIDE, HEIGHT, RTATION, READABLE, DATA

Code 128 Subset A: Included the standard uppercase alphanumeric keyboard characters, control and special characters.

Code 128 Subset B: Includes the standard uppercase, lowercase alphanumeric keyboard characters and special characters.

Code 128 Subset C: Used for double density encoding of numeric data (the set of 100 digit pairs from 00 through 99).

| Example | |
|---|---|
| Sbuset A: BQ2,8,8,2,5,40,0,0,AAPPLE | To select Code 128 Subset A, place a ASCII A before the data to be encoded. |
| Subset B: BQ2,8,8,2,5,40,0,0,BAPPLE | To select Code 128 Subset B, place a ASCII B before the data to be encoded. |
| Subset C: BQ2,8,8,2,5,40,0,0,C1234 | To select Code 128 Subset C, place a ASCII C before the data to be encoded. |
| Special character handling:<br>BQ2,8,8,2,5,40,0,0, ATEST&G | To encode FNC1 into a Code 128 Subset A, send the ASCII &G. |

| ASCII | 2 Character | Code A | Code B | Code C |
|---|---|---|---|---|
| 96 | &A | FNC3 | FNC3 | -NA- |
| 97 | &B | FNC3 | FNC2 | -NA- |
| 98 | &C | SHIFT | SHIFT | -NA- |
| 99 | &D | Code C | Code C | -NA- |
| 100 | &E | Code B | FNC | Code B |
| 101 | &F | FNC4 | Code A | Code A |
| 102 | &G | FNC1 | FNC1 | FNC1 |