EZPL Programmer's Manual

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Introduction

About EZPL

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

1. The data are stored to be processed and will not be printed out until the last printing instruction is received.
2. All the printing contents can be rotated.
3. Images can be downloaded and stored.

There are two ways to send printing commands to the printer. One is sending through the command window of (GoLabel or QLabel), the other is sending through Windows™ HyperTerminal™ via RS-232 port.

The EZPL language consists of three types of commands:

- **Setup commands** – It includes printer control instructions, configuration instructions and image downloading instructions.
- **Control commands** – It includes commands that can control the printer to take action immediately, such as cleaning memory, feeding label.
- **Label Format commands** - Define the format of data that will be presented on the label, such as Line, Rectangle, Barcode, Text and image.

Rules and syntax

EZPL commands include parameter strings associated with them:

1. The syntax of commands contains capital letters as the ID for each function.
2. The lower case letters in command represent parameters.
3. Control and Setup commands use the tilde (~) and caret (^) as prefix.
4. Label Format commands have no prefix.
5. The comma (,) is the delimiter to separate each parameter, and the CR (Carriage Return) signifies the end of every command.

Example: In “~En,name,size “ command, “E” is an identity letter of this image downloading command; “n”, “name” and “size” are three parameters.

Setup Commands

^An - Printing mode

Syntax	**^An**
Parameter	n = D, Direct thermal mode, the ribbon out sensor is disabled. n = T, Thermal transfer mode, the ribbon out sensor is enabled.
Description	1. If you want to change the print mode, you need to send the printing command to the printer for changing print mode setting. There are two ways to send printing commands to the printer. One is sending through the command window of (GoLabel or QLabel), the other is sending through Windows™ HyperTerminal™ via RS-232 port. To send printing command, make sure that the printer is on standby mode (LED light is green) and send below command to change the print mode. 2. Send "^AD" command to printer to change the print mode to Direct Thermal Mode. 3. Send "^AT" command to printer to change the print mode to Thermal Transfer Mode. When printer is on Thermal Transfer Mode, it is necessary to install the ribbon into printer. Otherwise the error message "Print Mode Error" will be triggered and the printer will not be able to print. * Note: this command will not be applied on Direct Thermal only models.
Example	^AD ^L ….. E

^Bx - Set the backward length

Syntax	**^Bx**
Parameter	x = 1~1000 (unit: mm)
Description	Set the backward length to move the position of paper. In progress If ~S,CHECK will feedback 00 If ~Z printer would turn on immediately If Dooropen → RED light would up and motor would stop at the same time even after printer cover close.
Example	Result : PC to Printer: ^B1000 Printer to action: Motor would turn backwards 1000mm

^Cx -Number of copies per label

Syntax	^Cx	
Effect & Default	Permanent , default = ^C1	
Parameter is not valid	Parameter is not processed.	
Parameter	x = 1 ~ 32767 (Number of copies) x = ^Vnn (with variable)	
Description	Set the number of copies to print for a label. Match with command ^Px or ~Px ; If you input the command ^C2 ^P3, the printer will print 6 pieces labels. If you input the command ^C3 ~P3, the printer will printer 9 pieces labels.	
Example	Send command : ^C2 ^P3 ^L C0,001,+1,Prompt AE,10,10,1,1,0,0,^C0 E Example 2: ^Flabel1 ^Q40,0,0	Print result : 001 001 002 002 003 003

	^C^V00 ^PA1 ^L C0,0000001,+1,Counter V00,15,Variable AF,108,140,1,1,0,0,^C0 AE,122,278,1,1,0,0,^V00 E ^Klabel1 00001 3 E	 00001 00001 00001 Printer will auto print 3 pieces.

^D+dddd.hh - Date calculation function

Syntax	**^D+dddd.hh**	
Parameter	dddd = days in 4 digits. Set how many days to be added to the current date. hh = hours in 2 digits. Set how many hours to be added to the current time.	
Description	This command will set the specified days and hours forward based on the printer's current date then print it.	
Example	In this sample, the printer will print current time and count the date that is 5 days and 12 hours after current time. Send command : ^Q40,0,0 ^W102 ^AT ^L Dy2-me-dd Th:m:s ~D01,01,05,12,00,00 AD,72,96,1,1,0,0,Manufactured Date: ^D ^T AD,72,190,1,1,0,0,Expiration Date: ^D+0005.12 E	Print result : Manufactured Date: 05-JAN-01 12:00 Expire Date: 05-JAN-07

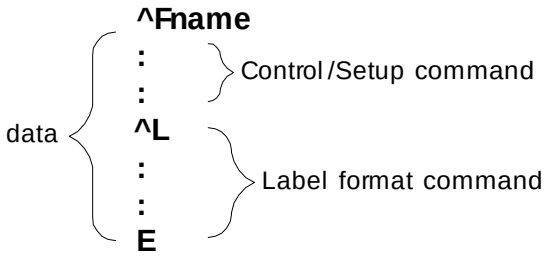
^Dx - Number of labels per cut

Syntax	**^Dx**
Parameter	x = 0, disable the cutting. x = 1 ~ 32767, number of label per cut.
Example	Send command : ^Q20,0,0 ^P6 ^D2 ^L E Print result : ^P6 = print 6 labels, ^D2 = cut once every 2 labels. It will cut 3 times in this case. Note : The last label will be cut anyway. For example, if send command ^P5 ^D2, it will cut 3 times as well.

^Ex - Stop position setting

Syntax	**^Ex**
Parameter	x = 0~40 (unit: mm)
Description	Feed the paper to specific stop position.
Example	^E12 ^L ….. E

^Fname - Download label file to printer

Syntax	**^Fname** data
Parameter	name = the name of label format (up to 20 characters) data = the data containing the label formatting command for this stored format
Description	Download label file to the memory of printer. After the download is completed, the printer will beep once (refer to page82).  Duplicate name inspection: If you use the same file name, the printer will print “REPEAT FILE NAME”, and the format will not be stored to the memory.
Example	To see ^Kname Example

^Gn - Enable/disable See-Through sensor

Syntax	**^Gn**
Parameter	n = 0, disable see-through sensor n = 1, enable see-through sensor n = 2, Auto-mode
Description	There are two types of sensor in printer: Reflective Sensor and See-through Sensor. Users can set one of them as active sensor. By default, the sensor setting is set on Auto-mode. However, sometimes the sensor may not be able to detect the label gap on special label materials. Then it would be necessary to change the sensor setting to other sensor. For example, when printing on labels with thick liner, colored liner or back graphics, the see-through sensor would need to be enabled since the reflective sensor may not work correctly. To switch between different sensors, please do as follows: 1. Make sure that the printer is on standby mode (LED light is green) and send below command to change the sensor setting. 2. Send "^G0" command to printer to set the Reflective Sensor as active sensor. 3. Send "^G1" command to printer to set the See-through Sensor as active sensor. 4. Send "^G2" command to printer to change the sensor setting to Auto-mode. *For the EZ-1000Plus series, EZ-DT series, EZ-1105 / EZ-1305 and EZPi-1000 series models, if the see-through sensor is enabled, the moveable Label Sensor must be placed in the center of the printer.

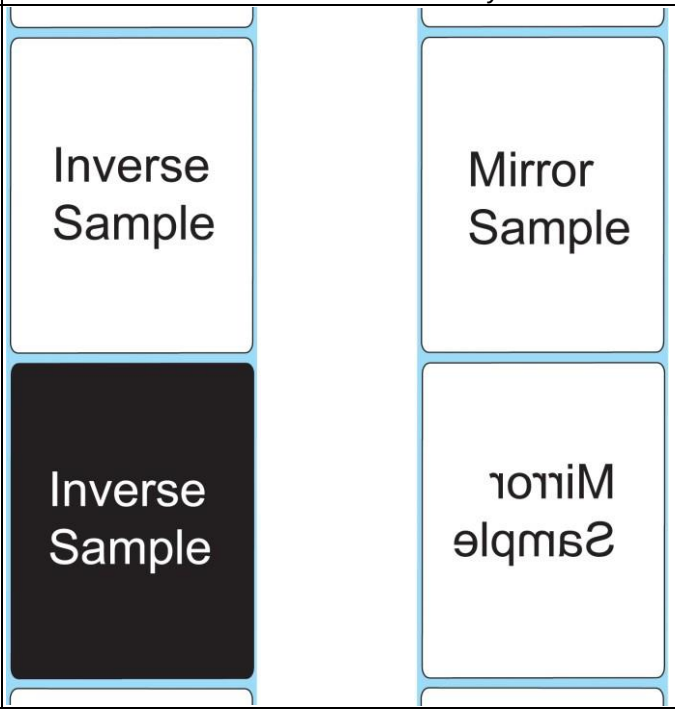
^Hx - Print darkness setting

Syntax	**^Hx**
Parameter	x = 00 ~ 19
Description	Set the darkness of printing.
Example	^H10 ^L ….. E

^Kname - Recall label format

Syntax	**^Kname**
Parameter	name = the name of recalled label format (up to 20 characters)
Description	Recall a label format stored in printer's memory (refer to page82) **^Kname** **:** } data **:** **E** **:** } Control/Setup command [option] **:** **~Px**

^Lx - The start sign of label format

Syntax	**^Lx**
Parameter	Use ^L to do normal printing; ^LI to do inverse printing; ^LM to do Mirror printing. ^LRn Whole label rotation n=0, 0°printing ; n=1, 90°printing ; n=2, 180°printing ; n=3, 270°printing (the same as ^XSET,ROTATION,n) I , M , R can be used at the same time.
Description	Define the start sign of Label format. Commands to set up the label format should be listed after ^Lx command. When rotates whole label (^Q & ^W will be the reference point), it will only handle 50 mm if set ^W50. This command will not affect by ^R.
Sample	

Syntax	**^Mx**
Parameter	x = 1~1000 (unit: mm)
Description	Set the forward length to move the position of paper. In progress If ~S,CHECK will feedback 00 If ~Z printer would turn on immediately If Dooropen → RED light would up and motor would stop at the same time even after printer cover close.
Example	Result: PC to Printer: ^M100 Printer to action: co-rotating 100mm

^NH,x – Set webpage function ON/OFF

Syntax	^NH,n
Effect & default	temporary
Parameter is not valid	Parameter is not processed.
Parameter	x = 0, webpage function OFF x = 1 ,webpage function ON (default)
Description	This command can set webpage function on/off
Example	None

^On - Label Dispenser (peel) / Applicator

Syntax	**^On**
Parameter	n = 0 , disable the Label Dispenser and Applicator n = 1 , enable the Label Dispenser, disable the Applicator n = 2 , enable the applicator, disable the Label Dispenser (applied on EZ-2000Plus / EZ-6000Plus only) (Please check with dealer whether your printer supports this function or not.)
Description	Enable or disable the Label Dispenser / Applicator. When you use this command, it should be matched with ^Ex for setting the stop position. (For the Label Dispenser setting, please refer to page78)
Example	^O1 ^L ….. E

^PAx -Auto Print

Syntax	^PAx	
Effect & default	temporary	
Parameter is not valid	Parameter is not processed.	
Parameter	x = 1~30000 (Number of copies , If you input “0”,the command will be ^PA1 .) x =^Vnn (with variable)	
Description	After the recall of label, printer will read variables and Serial Number and then print automatically for the number of copies that has been set.	
Example	Send command : ^Flabel1 ^Q40,0,0 ^PA3 ^L C0,0000001,+1,Counter V00,15,Variable AF,108,140,1,1,0,0,^C0 AE,122,278,1,1,0,0,^V00 E ^Klabel1 00001 Variable E Example2: ^Flabel1 ^Q40,0,0 ^PA^V00 ^L C0,0000001,+1,Counter V00,15,Variable AF,108,140,1,1,0,0,^C0 E ^Klabel1 00001 3 E	Printer result : 00001 Variable 00002 Variable 00003 Variable Printer will auto print 3 pieces. Printer will skip serial number. 00001 00002 00003 Printer will auto print 3 pieces Printer will skip serial number

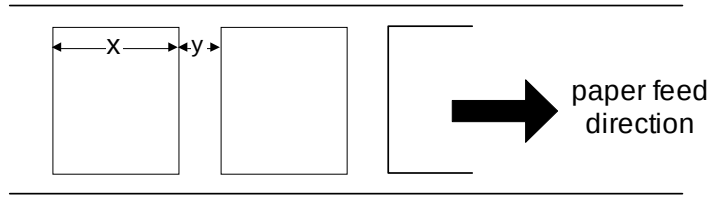
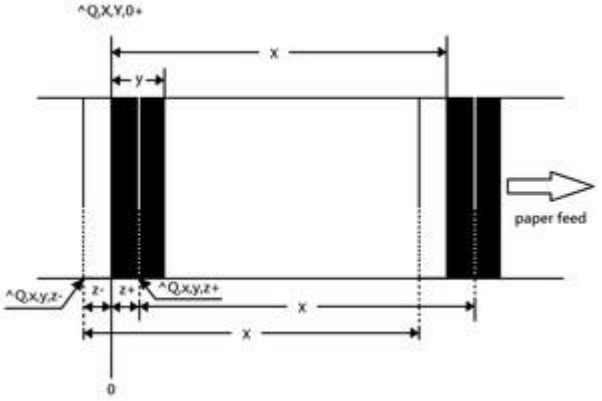
^Px - Number of pages printed

Syntax	**^Px**	
Parameter	x = 1 ~ 32767	
Description	Set the amount of copies for a printing. The Serial Number will be reset for each time the command is implemented.	
Example	Send command : ^Q40,0,0 ^P3 ^L AF,108,140,1,1,0,0,Test E	00001 Variable 00002 Variable 00003 Variable Printer will auto print 3 pieces.

^PI - Continuous printing

Syntax	**^PI**	
Parameter	None	
Description	Printer will print immediately, until the “Cancel” key is pressed or the printer is turned off. It can be paused by pressing “Pause” key otherwise printer would be keep going printing.	
Example	^Flabel2 ^Q40,0,0 ^PI ^L C0,000001,+1,Counter V00,15,Product AF,108,140,1,1,0,0,^C0 AE,122,278,1,1,0,0,^V00 E ^Klabel2 00001 Apple E	. . . 000003 Apple 000002 Apple 000001 Apple

^Qx,y(,z±) - Label length

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

^Rx - Row column adjustment

Syntax	**^Rx**
Parameter	x = 0 ~ 399 dots
Description	Set left margin
Example	^R08 (move right 1mm) ^L ….. E

^Sx - Speed setting

Syntax	**^Sx**
Parameter	x = 2 to 7 inch/sec ; 2 to 6 inch/sec ; 2 to 4 inch/sec ; 2 to 3 inch/sec
Description	Set printing speed S2 = 50.8 mm/s S3 = 76.2 mm/s S4 = 101.6 mm/s S5 = 127.0 mm/s S6 = 152.4 mm/s S7 = 177.8 mm/s In addition , special case S1 = 38.1 mm/s (To base on customer demanded)
Example	^S4 ^L ….. E

^T+hhh.mm - Time calculation function

Syntax	**^T+hhh.mm**
Parameter	hhh = hours in 3 digits (from 0 to 23 hours). Set how many hours to be added to the current time. mm = minutes in 2 digits. Set how many minutes to be added to the current time.
Description	This command will set the specified time forward based on the printer's current time then print it.
Example	In this sample, the printer will print current time and count the date that is 5 days and 12 hours after current time. ^Q100,3 ^W171 ^H10 ^P1 ^S4 ^AT ^C1 ^R0 ~Q+0 ^O0 ^D0 ^E14 ~R200 ^L Dy4-me-dd Th:m:s AD,90,154,1,1,0,0,Manufactured Day :^D ^T AD,90,248,1,1,0,0,Expiration Day :^D+0005.00 AD,90,324,1,1,0,0,Expiration Time: ^T+012.00 E
	Manufactured Day : 2005-JAN-19 02:41:03 Expiration Day : 2005-JAN-24 Expiration Time : 14:41:03

^Wx - Label width setting

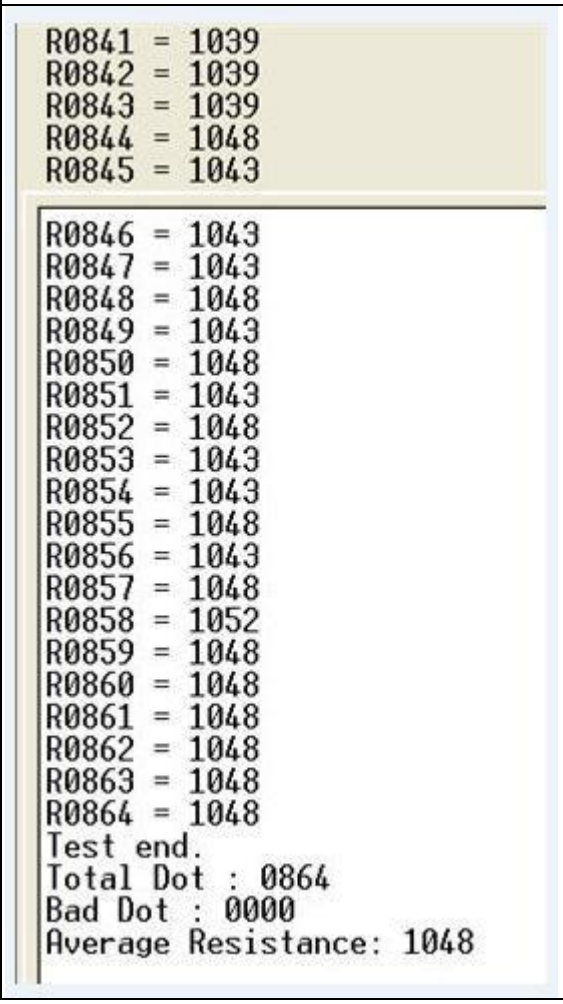
Syntax	**^Wx**
Parameter	x = label width (unit: mm), the input range is defined by the specification of printer models.
Description	Label width setting
Example	^W100 ^L ….. E

^XGET,CONFIG - Return the configure status

Syntax	**^XGET,CONFIG**
Parameter	None
Description	The printer will return configure status (the content is same as Self-Test page) from RS232 or USB and display it on Hyper Terminal.
Example	Procedure as below :

PC to Printer	^XGET,CONFIG
Printer to PC	EZ1100P G3.007 Serial port:96,N,8,1  1 DRAM installed Image buffer size:1500 KB 000 FORM(S) IN MEMORY 000 GRAPHIC(S) IN MEMORY 000 FONT(S) IN MEMORY 000 ASIAN FONT(S) IN MEMORY 000 DATABASE(S) IN MEMORY 000 TTF(S) IN MEMORY 2048 KB FREE MEMORY ^S3 ^H10 ^R000 ~R200 ^W102 ^Q100,3 ^E0 Option:^D0 ^O0 ^AT Reflective Volt:2.4 3.1 3.9(1.4_1.1) Code Page: 850

^XGET,TPHRESISTANCE - Dot detect

Syntax	**^XGET,TPHRESISTANCE**
Parameter	None
Description	Detect the resistance of each heat dot to check if there is any bad dot on thermal print head.
Example	

^XSET,ACTIVERESPONSE,n - Active response

Syntax	**^XSET,ACTIVERESPONSE,n**
Parameter	n = 0, do not return the "ERRORxx" message to PC n = 1, return the error message (default). When door open, ribbon out… or other error occur, the printer will return the "ERRORxx" message to PC
Description	Set the Active Response function on/off. The error code includes: 01 – Paper out 02 – Paper jam or missing gap 03 – Ribbon out 04 – Print head is up 05 – Rewinder full 06 – Memory is full 07 – Filename can not be found 08 – Filename duplicate 09 – Syntax error 10 – Cutter JAM 11 – CF Card not found *Note: before turning on the error code response function, the "Set immediate response" function should be turned on (send "^XSET,IMMEDIATE,1" to printer).
Example	Procedure : PC to Printer: ^XSET,ACTIVERESPONSE,1 Printer action: Door open Printer to PC: ERROR04 ERROR04 is means Door open

^XSET,ACTIVEMESSAGE,n - turn on/off auto print error message function

Syntax	**^XSET,ACTIVEMESSAGE,n**
Parameter	n = 0, disable ; = 1, enable this function.
Description	It will print error message while below error occurred: ● File System Full ● File Name Not Found ● Duplicate Name ● Command Not Recognized ● Extended Memory Not Found

^XSET,ALIAS,string - Printer alias name used for the recognition of each network printer

Syntax	**^XSET,ALIAS,string**
Parameter	Length<16Byte If does not input "string", it will response the existing setting in printer.
Description	Setup printer alias name to recognize each printer under network.

^XSET,AUTOTPHTEST,x - AUTO PRINTING SELF TEST PAGE WHEN PRINTER TURNED ON

Syntax	**^XSET,AUTOTPHTEST,x**
Parameter	x = 0 disable , = 1 enable this function
Description	Set Enable. Printer would be auto printing self-test page when turn on printer (example refer to ~T command)

^XSET,BUZZER,n - Set remind buzzer on/off

Syntax	**^XSET,BUZZER,n**
Parameter	n = 0, remind buzzer function off n = 1, remind buzzer function on
Description	This command can set printer remind buzzer on/off. When download graphic or font, printer will beep once. And use this command can turn off the remind buzzer function. But it can't set error buzzer on/off.

^XSET,CODEPAGE,n - Select Code Page

Syntax	**^XSET,CODEPAGE,n**

Parameter	n=0, CODEPAGE 850	n=1, CODEPAGE 852	n=2, CODEPAGE 437
	n=3, CODEPAGE 860	n=4, CODEPAGE 863	n=5, CODEPAGE 865
	n=6, CODEPAGE 857	n=7, CODEPAGE 861	n=8, CODEPAGE 862
	n=9, CODEPAGE 855	n=10, CODEPAGE 866	n=11, CODEPAGE 737
	n=12, CODEPAGE 851	n=13, CODEPAGE 869	n=14, WINDOWS 1252
	n=15, WINDOWS 1250	n=16, WINDOWS 1251	n=17, WINDOWS 1253
	n=18, WINDOWS 1254	n=19, WINDOWS 1255	n=20, WINDOWS 1257
Description	Set the code page.		

^XSET,ERRORPRINT,n - Set Error Reprint

Syntax	**^XSET,ERRORPRINT,n**
Parameter	n = 0 , after ERROR relieved, print the error label again and keeps printing. n = 1 , after ERROR relieved, will not print error label again and keeps printing. n = 2 , after ERROR relieved , cancel print job.
Description	Setup the process when error occurred.

^XSET,FEEDCUT,n – Set The Automatic Cutting Function After Pressing FEED Button

Syntax	^XSET,FEEDCUT,n
Parameter	n = 1 : when press feed key, printer will feed then cut label (cutter should be enable). When uses continuous paper, the feed distance will be one label. n = 0 : when press feed key, printer will not cut label (cutter function enable). When uses continuous paper, printer will stop feed paper while release feed key
Description	Setup the process when error occurred.
Example	None

^XSET,FEEDTYPE,n - Setup feed function

Syntax	**^XSET,FEETYPE,n**
Parameter	n=0, Press FEED key. Printer will be printing a blank label in standby mode. n=1, Press FEED key. Printer will be printing a previous one label in standby mode. n=2, Press FEED key. None function in standby mode.
Description	Setup feed function

^XSET,IMMEDIATE,n - Set immediate response on/off

Syntax	**^XSET,IMMEDIATE,n**
Parameter	n = 0, set immediate response function off (default) n = 1, set immediate response function on
Description	This command can set printer's immediate response function on/off. To implement commands that related to immediate response, the function should be turned on.

^XSET,KEYBOARD,n -Select different area PS2 Keyboard

Syntax	^XSET,KEYBOARD,n
effect & default	permanent , default = 0
Parameter is not valid	Parameter is not processed.
Parameter	n = 0 - US , 1 - UK , 2 - French , 3 - German , 4 - Spanish , 5 - Italian , 6 – Finnish , 7 - Dutch 8 – Belgian , 9 –Russian, 10 – Norwegian , 11 – Icelandic , 12 – Swedish,13 - Greek
Description	Change the area setting of keyboard mode. * Note: this command is only applied on printer models that support keyboard mode.
Example	Examination of Transmitting procedure: PC to Printer ^XSET,KEYBOARD,3 PC to Printer ^XGET,KEYBOARD Printer to PC 3 3 :Support German's PS2keyboard

^XSET,LABELSEARCH,n- Keep/ Not Keep Keywords While Recalling The Labels, After Printing

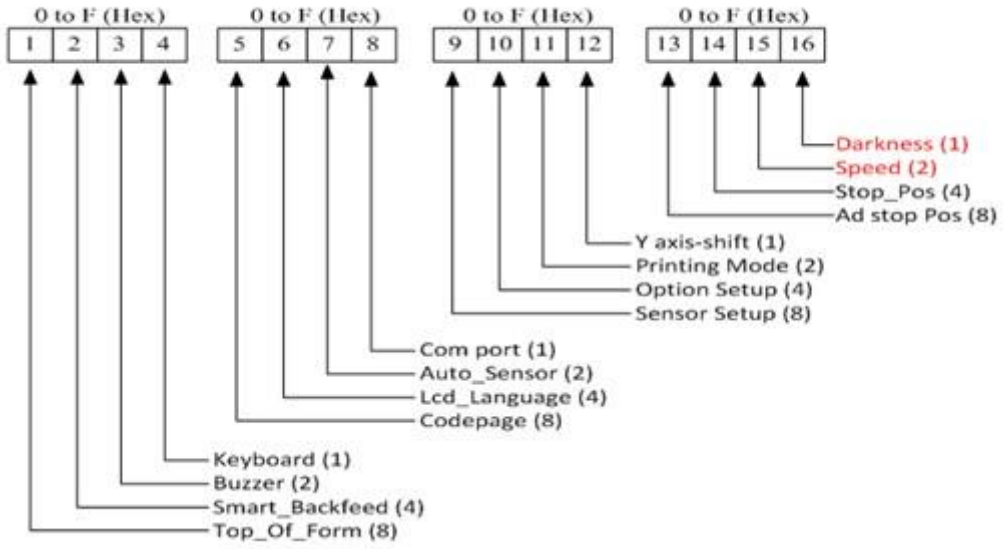
Syntax	^XSET,LABELSEARCH,n
effect & default	permanent , default = 0

parameter is not valid	Parameter is not processed.
Parameter	n = 0, Unable to continue keywords while resuming. n = 1, Enable the elimination of keywords while resuming.
Description	None
Example	None

^XSET,LCDDATETIMEFROMAT,n– Set The Displayed Format Of LCD Date & Time

Syntax	^XSET,LCDDATETIMEFORMAT,n
effect & default	temporary , reset after the computer system activates , default = 0
parameter is not valid	Parameter is not processed.
Parameter	n = 0:YYYY/MM/DD (24-Hour Clock) 1: MM/DD/YYYY(24-Hour Clock) 2: MM/DD/YYYY(12-Hour Clock) 3: DD/MM/YYYY(12-Hour Clock) 4: DD/MM/YYYY(12-Hour Clock)
Description	Set LCD
Example	None

^XSET,LOCKCMD,xxxx - Command Lock function, use only hardware modifications set

Syntax	**^XSET,LOCKCMD,xxxx**
Parameter	
Description	For value protected, user only can use LCD do any value setting.

^XSET,REWINDER,n - Set Rewinder

Syntax	**^XSET,REWINDER,n**
Parameter	n = 0, disable the rewinder n = 1, enable the rewinder
Description	Set EZ-6000Plus Rewinder enable/disable. * Note: this command is only applied on EZ-6000Plus.

^XSET,REALLENGTHPRINT,n - Adjust label length based on label content

Syntax	**^XSET,REALLENGHTPRINT,n**
Parameter	n = 0, disable n = 1, enable
Description	Adjust label length based on label content (Only support EZPL(Zebra mode).GZPL(Godex mode) in continues label)

^XSET,RECALLCRLF,n - Line feed characters include a character in recall label mode

Syntax	**^XSET,RECALLCRLF,n**
Parameter	n = 0, disable n = 1, enable
Description	Enable EZPL(Zebra mode) and GEPL(Godex mode). Line feed characters include a character in recall label mode.

^XSET,PAUSEPRINT,n – Set to pause after printing one page

Syntax	^XSET, PAUSEPRINT,n
effect	default = 0
parameter is not valid	Parameter is not processed.
Parameter	n = 0 ~ 1 n = 0, disable n = 1, enable

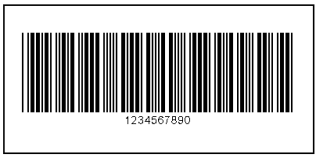
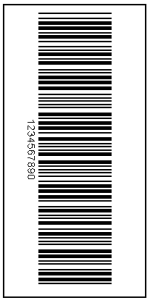
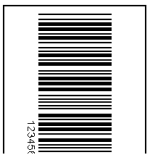
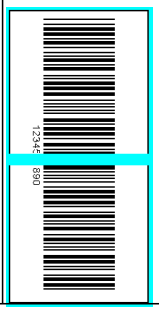
Description	Go to pause after printing one page, and continue to print next one by pressing feed key.
Example	None

^XSET,PORTACTIVE,l,s,e,u,b– Control The Reception Of Port Active / Inactive

Syntax	^XSET,PORTACTIVE,l,s,e,u,b
Effect	Permanent
Parameter is not valid	Parameter is not processed.
Parameter	L:LPT S:Serial Port E:Ethernet(The printer will restart as long as Ethernet port changes.) U:USB B:Blue Tooth
	Setting value 0: Disable 1:Enable
Description	Default : ^XSET,PORTACTIVE,1,1,1,1,1
Example	Enable: ^XSET,PORTACTIVE,1,1,1,1,1 Disable Serial Port ^XSET,PORTACTIVE,1,0,1,1,1

^XSET,ROTATION,n - Rotate whole label

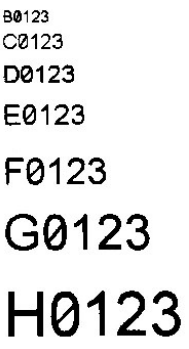
Syntax	**^XSET,ROTATION,n**
Parameter	n = 0 , rotate 0° printing ; n = 1 , rotate 90° printing ; n = 2 , rotate 180° printing ; n = 3 , rotate 270° printing
Description	When perform this command, the length and width of label format will be swapped.

Example	Print labels as below: ^Q50,3 ^W102 ^L Dy2-me-dd Th:m:s R12,8,806,386,5,5 BA,118,74,3,7,200,0,1,43546576876 E  Case 1 : Continues paper, setup ^Q50,0,0 ^W100. Rotate 90°, it becomes ^Q100,0,0 ^W50.  Case 2 : Gap paper (Label: 50(H) * 100(W) * gap 3), setup ^Q50,0,0 ^W100. Rotate 90°, it becomes ^Q100,0,0 ^W50. It will only print out 50mm (H) * 50mm (W)  Case 3 : Gap paper (Label: 50(H) * 100(W) * gap 3) ^Q50,0,0 ^W100. Rotate 90°, it becomes ^Q100,0,0 ^W50 + ^XSET,ACROSS,1 (cross label command). It will print out below labels with 100mm (H) * 50mm (W). 

^XSET,SENSING,n - Assign reflect or see-through sensor mode be a detector while using continuous label

Syntax	**^XSET,SENSING,n**
Parameter	n = 0 reflect sensor , = 1 see-through sensor , =2 none detected mode
Description	Assign reflect or see-through sensor mode be a detector while using continuous label

^XSET,SLASHZERO,n - Slashed zero

Syntax	**^XSET,SLASHZERO,n**	
Parameter	n = 0, without slash, n = 1, with slash	
Description	Set all zero to be printed as slashed zero.	
Example	^XSET,SLASHZERO,1 ^Q60,0,0 ^L AA,81,15,1,1,0,0,A0123 AB,81,41,1,1,0,0,B0123 AC,81,71,1,1,0,0,C0123 AD,81,111,1,1,0,0,D0123 AE,81,160,1,1,0,0,E0123 AF,81,230,1,1,0,0,F0123 AG,81,298,1,1,0,0,G0123 AH,81,396,1,1,0,0,H0123 E	

^XSET,SMARTBACK,n - Smart backfeed

Syntax	**^XSET,SMARTBACK,n**	
Parameter	n = 0, OFF n = 1, ON	
Description	This function can reduce the process time when Label Dispenser or Cutter been used. With this command, when the prior label is waiting for cutting or peeling, the partial contents of the next label will be printed. After the label has been cut or peeled, the printer will continue to print the rest contents of the next label.	
Example	(For Label Dispenser) ^XSET,SMARTBACK,1 ^Q100,3 ^E30 ^O1 ^P3 ^L R18,18,750,774,10,10 E	1. Printer will print out first label and part of second label 2. After taking label away, printer continues printing second label and part of third label. 3. After taking label away, printer print out third label.
	(For Cutter) ^XSET,SMARTBACK,1 ^Q100,3 ^E30 ^D1 ^P3 ^L R18,18,750,774,10,10 E	

^XSET,TEXTBLOCK,n – TEXT BLOCK Function Control

Syntax	^XSET,TEXTBLOCK,n
Effect & default	permanent default = 0
parameter is not valid	Parameter is not processed.
Parameter	=0 no text block ; =1 enable text block; =2 Line feed along with blank
Description	When activating this function, texts with variable are valid: n=0 , Variable does not align the range：The word-wrap point is set to label margin. n=1 , Variable aligns the range：The word-wrap point is set to align the range.

	n=2 , Automatic word-wrap requirement alters into: If there is a blank, the label border is still aligned.
Example	

^XSET,TOPOFFORM,n - Top of Form

Syntax	**^XSET,TOPOFFORM,n**
Parameter	n = 0, disable Top of Form function n = 1, Enable Top of Form function n = 2, it will not perform Top of Form while power on but when error or door open occurred, it will perform Top of Form. When function enabled and power on, printer will back up according to E value. n = 3, disable Top of Form function but will back up according to E value.
Description	Enable/Disable Top of Form function.
Example	When power on printer or relieved from error, 2nd label will be moved to printing line. If press feed key after power on printer or relieved from error, it will not perform Top of Form.

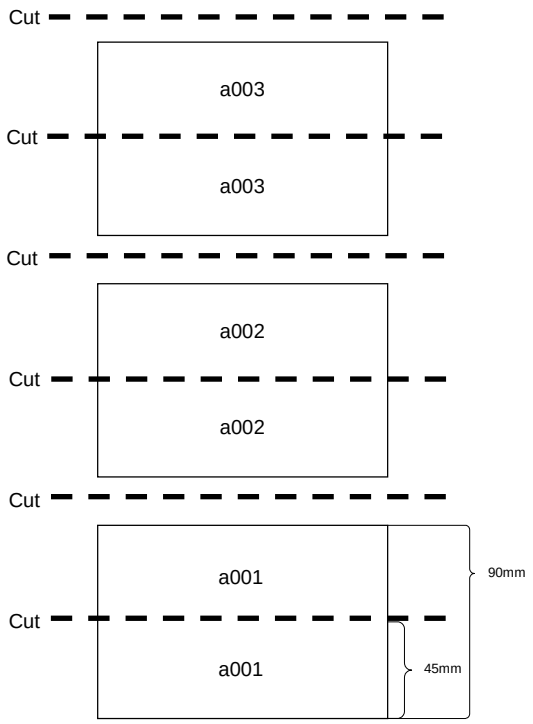
^XSET,UNPROMPT,p1 - Automatically acquire variables

Syntax	**^XSET,UNPROMPT,p1**	
Parameter	p1 : the variable code which want to acquire	
Description	Automatically acquire variables. Same as V#SET,UNPROMPT,p1	
Example	Send command : ~MDELF,T001 ^FT001 ^Q50,0,0 ^W100 ^L V00,10,Prompt V01,10,Prompt V02,10,Prompt V#OP+,V02,V00,V01 ^XSET,UNPROMPT,V02 AH,188,20,1,1,0,0,V1 = ^V00 AH,188,120,1,1,0,0,V2 = ^V01 AH,188,220,1,1,0,0,V1 + V2 = ^V02 E ^KT001 001 002 E ~P1	Print result : V1 = 001 V2 = 002 V1+V2 = 3

^XSET,WHENTOSENSING,n - Set up autosensing

Syntax	**^XSET,WHENTOSENSING,n**
Parameter	n=0 None function n=1 do the auto sensing when printer turned on n=2 After printer cover close do the auto sensing n=3 printer cover open up do the auto sensing. Printer cover closes up as well.
Description	Set up autosensing

^XSETCUT,DOUBLECUT,x - Double cut

Syntax	**^XSETCUT,DOUBLECUT,x**	
Parameter	x = 0, disable the doublecut x = offset length (offset length ＜Label length, unit: mm)	
Description	Set the printer to cut twice per label.	
Example	^XSETCUT,DOUBLECUT,45 ^Q90,3 ^E20 ^P3 ^D1 ^L C0,001,+1,A1 AC,350,144,1,1,1,0,a^C0 AC,350,544,1,1,1,0,a^C0 E	
Note	This function may decrease the service life of cutter since the adhesive of label will stain the cutter. Hence it is not recommended to use this function.	

^XSETCUT,MODE,n - Set cutter mode

Syntax	**^XSETCUT,MODE,n**
Parameter	n = 0, Full-cut mode (default) n = 1, Partial-cut mode * Note: do not set the cutter mode to Partial-cut mode when cutting with cutter module that doesn't support Partial-cut function.
Description	Set the cutter mode to Full-cut mode or Partial-cut mode

^XSETRTC,ISOWEEKNUM,n - ISO Week

Syntax	**^XSETRTC,ISOWEEKNUM,n**
Parameter	n = 0, disable the ISO Week (default) n = 1, enable the ISO Week
Description	This command can set ISO week of the year to print.
Example	The following figure shows the ISO Week for 1 January 2000 It is week 52 of year 1999, day 6 of the week, and day 1 of year 2000.

1999	1 Mon	2 Tue	3 Wed	4 Thu	5 Fri	6 Sat	7 Sun
W44	305	306	307	308	309	310	311
W45	312	313	314	315	316	317	318
W46	319	320	321	322	323	324	325
W47	326	327	328	329	330	331	332
W48	333	334	335	336	337	338	339
W49	340	341	342	343	344	345	346
W50	347	348	349	350	351	352	353
W51	354	355	356	357	358	359	360
W52	361	362	363	364	365	1	2

2000	1 Mon	2 Tue	3 Wed	4 Thu	5 Fri	6 Sat	7 Sun
W01	3	4	5	6	7	8	9
W02	10	11	12	13	14	15	16
W03	17	18	19	20	21	22	23
W04	24	25	26	27	28	29	30
W05	31	32	33	34	35	36	37
W06	38	39	40	41	42	43	44
W07	45	46	47	48	49	50	51
W08	52	53	54	55	56	57	58
W09	59	60	61	62	63	64	65

Program: with the ISO Week Date function	**Remark**
~D1,1,0, 0,0,0	Set the date and time
^XSETRTC,ISOWEEKNUM,1	
^Q50,0,0	
^L	
Dy4-mn-dd	Define the clock type
AC,58,32,1,1,0,0,Today is ^D	Print the date
Dwy1	
AC,58,132,1,1,0,0,Week of year in one digit: ^D	Print the Week of year in one digit
Dwy2	(Week of year in one digit: 52)
AC,58,194,1,1,0,0,Week of year in two digits: ^D	Print the Week of year in two digits
E	(Week of year in two digits: 52)

Program: without the ISO Week Date function	**Remark**
~D1,1,0, 0,0,0	Set the date and time
^XSETRTC,ISOWEEKNUM,0	
^Q50,0,0	
^L	
Dy4-mn-dd	Define the clock type
AC,58,32,1,1,0,0,NOT ISO week of year (^D)	Print the date
Dwy1	
AC,58,132,1,1,0,0,Week of year in one digit: ^D	Print the Week of year in one digit
Dwy2	(Week of year in one digit: 1)
AC,58,194,1,1,0,0,Week of year in two digits: ^D	Print the Week of year in two digits
E	(Week of year in two digits: 01)

^XSETRTC,LANGUAGE,n - Different language layout

Syntax	**^XSETRTC,LANGUAGE,n**	
Parameter	n = 0-English 1-German 3-Spanish 2-French 4-Italian	
Description	This command can set the language of RTC.	
Example	^XSETRTC,LANGUAGE,0 ^Q50,0,0 ^L AC,58,06,1,1,0,0,English Dw1 AC,58,046,1,1,0,0,Day-of-week 3 letter: ^D Dw2 AC,58,098,1,1,0,0,Day-of-week complete: ^D Dwn AC,58,144,1,1,0,0,Day-of-week number: ^D Dm1 AC,58,188,1,1,0,0,Month of year 3 letter: ^D Dm2 AC,58,240,1,1,0,0,Month of year complete: ^D Dmn AC,58,286,1,1,0,0,Month of year number: ^D E ^XSETRTC,LANGUAGE,1 ^Q50,0,0 ^L AC,58,06,1,1,0,0,German Dw1 AC,58,046,1,1,0,0,Day-of-week 3 letter: ^D Dw2 AC,58,098,1,1,0,0,Day-of-week complete: ^D Dwn AC,58,144,1,1,0,0,Day-of-week number: ^D Dm1 AC,58,188,1,1,0,0,Month of year 3 letter: ^D Dm2 AC,58,240,1,1,0,0,Month of year complete: ^D Dmn AC,58,286,1,1,0,0,Month of year number: ^D E	English Day-of-week 3 letter: Thu Day-of-week complete: Thursday Day-of-week number: 4 Month of year 3 letter: Mar Month of year complete: March Month of year number: 03 German Day-of-week 3 letter: Sam Day-of-week complete: Samstag Day-of-week number: 6 Month of year 3 letter: Nov Month of year complete: November Month of year number: 11

^Yb,p,d,s - RS232 serial Port communication setting

Syntax	**^Yb,p,d,s**		
Parameter	b = Baud Rate	48=4800bps	
		96=9600bps	
		19=19200bps	
		38=38400bps	
		57=57600bps	
		11=115200bps	
	p = Parity (N, O, E)	N=none parity	
		O=odd parity	
		E=even parity	
	d = Number of data bits	7	
		8	
	s = Number of stop bits	1	
		2	
Description	Serial Port communication setting		

^Z - Reset to factory default settings

Syntax	**^Z**
Parameter	^Z: default value comes from EEPROM default area.
Description	Reset to factory default. Same as ~~INTERNALCOMMAND+INIT

Control Commands

~B - Display the version message

Syntax	**~B**
Parameters	None
Description	Show the version number of firmware on Hyper Terminal.

~Dm,d,y,h,i,s - Date/Time setting

Syntax	**~Dm,d,y,h,i,s**	
Parameter	m = Month (01 to 12) d = Date (01 to 31) y = Year (last two digits of year)	h = Hour (00 to 23) i = Minutes (00 to 59) s = Seconds (00 to 59)
Description	Set real time clock of the printer. For format setting of the date, use the Daa|bb|cc command.	
Example	~D12,22,04,11,11,11 ^L Dwn AD,182,145,1,1,0,0,^D Dw2 AD,135,186,1,1,0,0,^D Dw1 AD,168,226,1,1,0,0,^D Dmn/dd/y2 AD,126,110,1,1,0,0,^D E	The following form shows the date for December 2004.

Sun.	Mon.	Tue.	We.	Thu.	Fri.	Sat.
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

The print result as below.

12/22/04
3
Wednesday
Wed

~En,name,size - Download graphic to memory

Syntax	**~En,name,size**
Parameters	n = P or p: PCX file n = B or b: BMP file n = N or n:PNG file name = Name of image (up to 20 character) size = Size of image (bytes), maximum 512K byte.
Description	Download monochrome image onto memory. Printer will beep once after downloaded completed. If the file name of graph is duplicated, the printer will show “REPEAT FILE NAME”, and the download will not be accepted (refer to page81).

~Fn – Control Printer into Keyboard Mode

Syntax	~Fn
Parameters	1: into keyboard mode to select label 0: exit keyboard mode , back to ready
Description	It should be use when you are in the process of keyboard mode.
Example	None

~G - Graphic mode

Syntax	**~G**
Parameter	None
Description	Set the printer to image-receiving mode. The image data is sent directly from host to the printing buffer (refer to page80)

~H,TTF,Xname,size<CR>data - Download true type font

Syntax	**~H,TTF,Xname,size<CR>data**
Parameter	X = from A to Z name = font name, accepted values: English alphabet and numbers size = size of font file in bytes data = binary data of TTF font file
Description	Download True Type Font to printer via command set. *Note: This command is designed for advance programmer. For general user, it is recommended to download TTF through (GoLabel or QLabel).

~H,TTF_TABLE,Xname,size<CR>data - Download Unicode Table

Syntax	**~H,TTF_TABLE,Xname,size<CR>data**
Parameter	X = from A to Z name = table name, accepted values: English alphabet and numbers size = size of font in bytes data = binary data of Unicode Table file
Description	Download the Unicode Table for printing True Type Font. *Note: This command is designed for advance programmer. For general user, it is not recommended to use this command.

~Jx - Bit-Mapped font download

Syntax	**~Jx**	
Parameters	x = character; From a ~ z or A ~ Z; the amount is up to 26 characters.	
Description	The command used for font loading is usually generated by (GoLabel or QLabel) 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 not be 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

~Kn – Response function’’ Y’’ from RS-232

Syntax	**~Kn**
Parameter	n = 0, disable. n = 1, enable.
Description	Respond a “Y” signal from RS-232 back to host after each printing is done.

~L,DBASE,x,y - Download dBase III to Printer

Syntax	**~L,DBASE,x,y** data…
Parameter	x = database name y = database size (unit: byte)
Description	This command can download dBase III file to printer.
Example	~L,DBASE,customer,364 …(Data of customer.dbf)

~L,DBASECSV,x,y - Download CSV to Printer

Syntax	**~L,DBASECSV,x,y** data…
Parameter	x = database name y = database size (unit: byte)
Description	This command can download CSV file to printer.
Example	None

~L,SERIAL,name,data - Download serial file to printer

Syntax	**~L,SERIAL,name,data…**
Parameter	name = serial file name data = serial file data
Description	Download serial file to printer.

~MCPY,s:o.x,d:o.x – Copy file

Syntax	~MCPY,s:o.x,d:o.x
Parameter	s = source device of stored object (s = Dor F) d = distination device of stored object o = object name , o also can use * for this command. x = extension , x also can use * for this command.
	= D, database = A, Asia font = C, TTF font = E, Bit-Mapped font = F, label form = G, graphic = S, serial file = T, text = B, Unicode Table
Description	Copy file
Example	~MCPY,F:*.F,D:*.F ~MCPY,D:*.G,F:

~MDEL - Format current memory (not include download font- Asian font & TTF)

Syntax	~MDEL
Parameter	None
Description	Format current memory (not include download font- Asian font & TTF), ~X4 can check status of memory.
Example	None

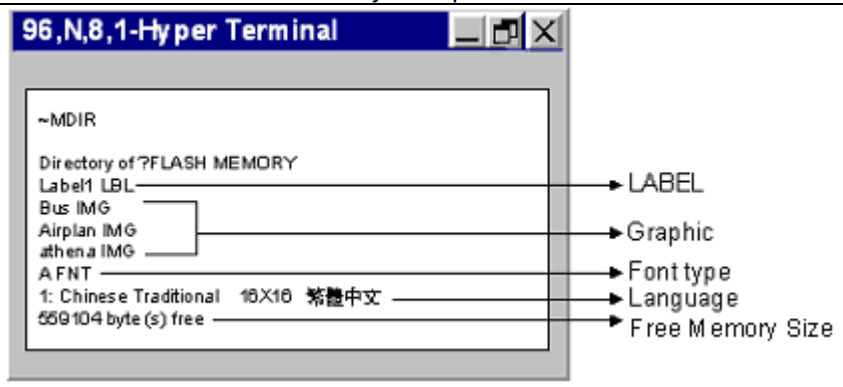
~MDEL* - Format current memory

Syntax	~MDEL*
Parameter	None
Description	Format current memory
Example	None

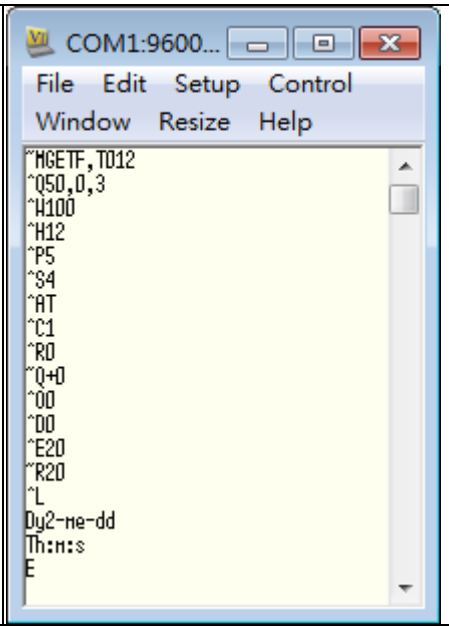
~MDELn,name - Delete specific file from memory

Syntax	**~MDELn,name**	
Parameter	n = D, database A, Asia font C, TTF font E, Bit-Mapped font F, label form G, graphic S, serial file T, text B, Unicode Table name = The name of the graphic, form, Bit-Mapped font or others. *Note: The 'name' of Asia font, TTF font and Unicode Table is ID tag.	
Description	Delete specific file from printer's memory	
Example	~MDELD,customer	Delete "customer" database.
	~MDELG,Bus	The graphic "Bus" will be deleted

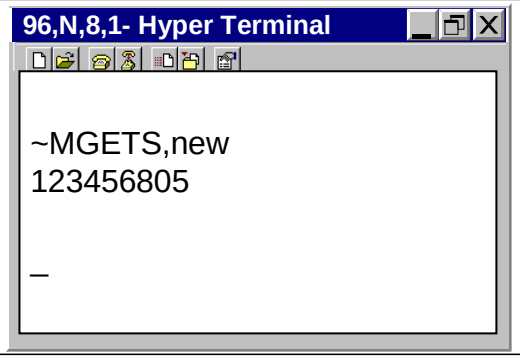
~MDIR - Get memory state from printer

Syntax	**~MDIR**
Parameter	None
Description	Show the information of memory from printer
Example	

~MGETF,name -Get Label Format File information

Syntax	~MGETF,name	
Effect & default		
Parameter is not valid	Parameter is not processed.	
Parameter	name = label format file name	
Description	Show the label format file information on Hyper Terminal	
Example	(Get the information of label format file "T012" from printer) ~MGETF,T012	

~MGETS,name - Get Serial File information

Syntax	**~MGETS,name**	
Parameter	name = serial file name	
Description	Show the serial file information on Hyper Terminal	
Example	(Get the information of serial file “new” from printer) ~MGETS,new	

~MGETT,name<CR> - 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. Then use “~MGETT,name<CR>“ command to read saved data Example: ~MGETT,text1 Hyper Terminal will show: Text file test2

~MSETT,name<CR>nnnnnnnn<data> - Save the .TXT file to printer

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

~MMOV,s:o.x,d:o.x - Move file

Syntax	~MMOV,s:o.x,d:o.x
Parameter	s = source device of stored object (s = D or F) d = distination device of stored object o = object name , o also can use * for this command. x = extension , x also can use * for this command. = D, database = A, Asia font = C, TTF font = E, Bit-Mapped font = F, label form = G, graphic = S, serial file = T, text = B, Unicode Table
Description	Move file
Example	~MMOV,F:*.F,D:*.F ~MMOV,D:*.G,F:

~Px - Print label

Syntax	**~Px**
Parameter	x = 1 ~ 32767
Description	This command will repeatedly print the specific copies of label format.

~Q±x - Row Offset Adjustment

Syntax	**~Q±x**
Parameter	X =-100 ~ +100 (unit: dots)
Description	This command is used for setting the start position of label printing. The top edge of label is considered as “0”. The “+n” move the start position downward, and the “–n” move the position upward (it can be set across 2 labels).

~Rx - Rotate printing

Syntax	**~Rx**
Parameter	x = label width (unit: mm), the input range is defined by the specification of printer models.
Description	Rotate the label format 180-degrees when printing (refer to page81). To return to the original print direction, set the x value greater than the max width of model’s specification.

~S,CHECK - Status immediate response command

<table>
<tr><td>Syntax</td><td>~S,CHECK</td></tr>
<tr><td>Parameter</td><td>None</td></tr>
<tr><td>Description</td><td>The command will show the status of printer in “aa <CR><LF>“ format.
aa = printer status information:
00 – Ready
01 – Media Empty or Media Jam
02 – Media Empty or Media Jam
03 – Ribbon Empty
04 – Printhead Up (Open)
05 – Rewinder Full
06 – File System Full
07 – Filename Not Found
08 – Duplicate Name
09 – Syntax error
10 – Cutter JAM
11 – Extended Menory Not Found
20 – Pause
21 – In Setting Mode
22 – In Keyboard Mode
50 – Printer is Printing
60 – Data in Process
*Note: Before using this command, the “^XSET,IMMEDIATE” (Set immediate response on/off) command should be turned on.</td></tr>
<tr><td>Example</td><td>Procedure:
<table>
<tr><td>PC to Printer</td><td>^XSET,IMMEDIATE,1</td></tr>
<tr><td>Printer action</td><td>Door open</td></tr>
<tr><td>PC to Printer</td><td>~S,CHECK</td></tr>
<tr><td>Printer to PC</td><td>04</td></tr>
</table>
**04: Door open</td></tr>
</table>

~S,DUMP - Enter into DUMP Mode

Syntax	**~S,DUMP**
Parameter	None
Description	When the printout result doesn't match to the label format setting, it is recommended to go into the Dump Mode to check whether any mistake in data transmission between the printer and the PC. For example, when printer receives 8 commands, yet without processing these commands, only printing out the contents of commands, this will confirm whether the commands were received correctly. To enter the Dump Mode, please do as follows: 2. Make sure that the printer is on standby mode (LED light is green). 3. Send "~S,DUMP" command to the printer. 4. Printer will automatically print "DUMP MODE BEGIN". This indicates the printer is already in Dump Mode. 5. Send other printing commands to the printer, and check if the content matches the sent commands. 6. The print width would be changed when use ^W command in the meantime. To get out from the Dump Mode, please press the FEED key, and then the printer will automatically print out "OUT OF DUMP MODE". This indicates that the printer is back to standby mode. You can also power off the printer to exit from the Dump Mode.

~S,OFFSETa,n - Setup position micro adjustment

Syntax	**~S,OFFSETa,n**
Parameter	a=X or Y n=-100 ~ +100
Description	Setup position micro adjustment

~S,SENSOR - Auto Sensing

Syntax	**~S,SENSOR**
Parameter	None
Description	Printer can automatically detect the label and store the result of detecting. By doing this, the printer will calibrate the printing position of the label and the user can do printing without setting the label length. To perform the Auto Sensing, please do as follows: 1. Check if the label is correctly loaded on the printer and make sure the printer is on standby mode (LED light is green). 2. Send "~S,SENSOR" command to the printer. The printer will start to detect the label and record the result. 3. When calibration finished, printer will be back to standby mode.

~S,n (n = FEED, PAUSE, CANCEL, BUFCLR) - Analogue press control keys

Syntax	**~S,n**
Parameter	n = FEED, same as push Feed key once. (if the media setup is plain paper, ~S,FEED = feed 1mm) n = PAUSE, same as Pause key. On the printers without LCD display, the LED will flash slowly while sending this command. Send ~S,PAUSE or ~S,FEED again, it will come back to standby status. n = CANCEL, same as Cancel key used to clear error status. n = BUFCLR, printer will stop printing immediately and clean printer buffer then stays in standby status. (Serial and Variable will be cleared as well)
Description	Current printer default = ~S,ESA (auto switch). When a printer switch to certain language, it can auto detect and switch again by rebooting printer.
Example	None

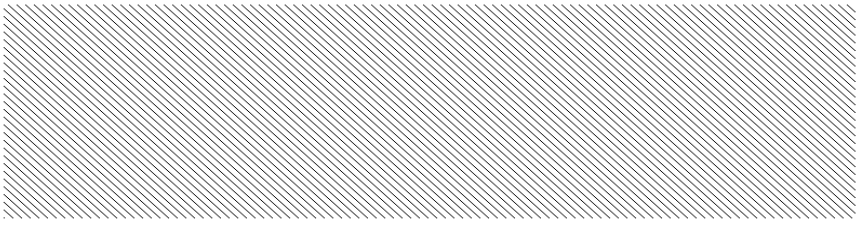
~S, ES[p1] – Change printer command language

Syntax	**~S, ES[p1]**
Parameter	n = p1 ; p1 = A or blank : auto switch ; p1 = G : EZPL ; p1 = E : GEPL ; p1 = Z : GZPL
Description	Current printer default = ~S,ESA (auto switch). When a printer switch to certain language, it can auto detect and switch again by rebooting printer.
Example	None

~S,STATUS - Status immediate response command

Syntax	**~S,STATUS**
Parameter	None
Description	Almost same as ~S,CHECK, the only difference is the response format of ~S,STATUS is “aa,nnnnn<CR><LF> aa : please check ~S,CHECK for further explanation nnnnn : remaining number of prints, range from 00000 to 99999
Example	Procedure : PC to Printer: ^XSET,IMMEDIATE,1 Printer action: Door open PC to Printer: ~S,STATUS Printer to PC: 04,00100 **04: Door open , 00100: 100 labels waiting for printing

~T - Print head testing

Syntax	**~T**
Parameter	None
Description	Print a pattern for the user to determine if the print head is damaged. The printing is based on width setting.
Example	Print resolute as below:: 

~V - Print Self-Test page

Syntax	**~V**
Parameter	None
Description	Print out the Self-Test page. The printing is based on width setting.

~Xn - Print the available space and file information in the memory

Syntax	**~Xn**
Parameter	n = 1, print label format names and available space in memory. n = 2, print graphic names and available space in memory. n = 3, print Bit-Mapped font names and available space in memory. n = 4, print the name of the label formats, graphics, fonts, Asia font, database, serial variable and available space in memory. n = 5, print Asia font names and available space in memory n = 6, print out total printing length and response through RS-232 n = 7, Print database information in memory n = 8, Print serial file name n = 9, Print download TTF information in memory
Description	Print the available space in the memory (unit: kb)
Example	Procedure :

PC to Printer	~X1
Printer to PC	FREE MEMORY SPACE 978336 KB T001.LBL 1 FORM(S) IN CF CARD

PC to Printer	~X2
Printer to PC	FREE MEMORY SPACE 978336 KB godex logo.IMG 1 GRAPHIC(S) IN CF CARD

PC to Printer	~X3
Printer to PC	FREE MEMORY SPACE 978336 KB A.FNT 1 FONT(S) IN CF CARD

PC to Printer	~X4
Printer to PC	FREE MEMORY SPACE 978336 KB New.SER 1 SERIAL(S) IN CF CARD TEST1.DBF 1 DBASE(S) IN CF CARD 1: Chinese Traditional 24x24 1 ASIAN FONT(S) IN CF CARD A.FNT 1 FONT(S) IN CF CARD godex logo.IMG 1 GRAPHIC(S) IN CF CARD T001.LBL 1 FORM(S) IN CF CARD

PC to Printer	~X5
Printer to PC	FREE MEMORY SPACE 978336 KB 1: Chinese Traditional 24x24 1 ASIAN FONT(S) IN CF CARD

PC to Printer	~X6
Printer to PC	Total printing length 00000565 METER(S)

PC to Printer	~X7
Printer to PC	FREE MEMORY SPACE 978336 KB TEST1.DBF 1 DBASE(S) IN CF CARD

PC to Printer	~X8
Printer to PC	FREE MEMORY SPACE 978336 KB new.SER 1 SERIAL(S) IN CF CARD

PC to Printer	~X9
Printer to PC	FREE MEMORY SPACE: 1597 KB A: CP850_Latin1 TTF_TABL 001 TTF TABLE(S) IN MEMORY A: Arial (True Type) TTF 001 TTF(S) IN MEMORY

~Z - Reset printer

Syntax	**~Z**
Parameter	None
Description	Reset the printer and the LED will flash once. It only applied when printer is in standby mode.

Label formatting commands

AUTOFR - Automatic form printing

<table>
<tr><td>Syntax</td><td colspan="2">AUTOFR</td></tr>
<tr><td>Parameters</td><td colspan="2">None</td></tr>
<tr><td>Description</td><td colspan="2">When use "^Fname" command to store a label form, set the form name as "AUTOFR" and save into printer's memory. The printer then can print the label in standalone mode when power on next time.</td></tr>
<tr><td rowspan="2">Sample</td><td>^FAUTOFR
^Q20,0,0
^P1
^L V00,6,Prompt
AG,260,32,1,1,0,0,^V00
E
~Z

Printer will reboot after the save the file. Yellow light stands for the printer is standby and waiting for print. Input the variable and prints labels. For instance:

APPLE
3

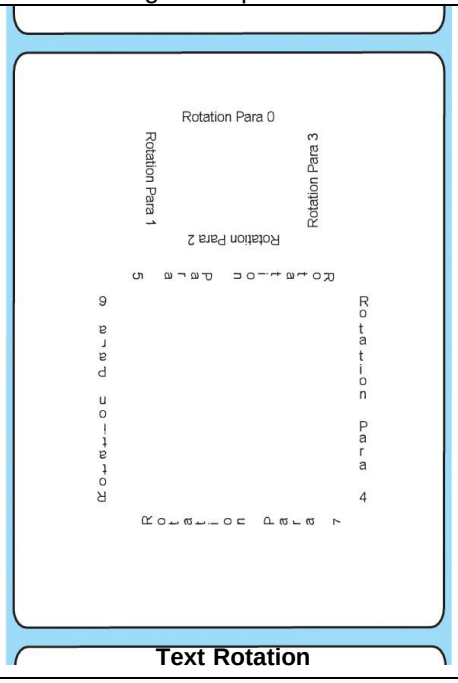
It will print 3 labels with APPLE on it.</td><td>^FAUTOFR
^Q20,0,0
^PA3
^L V00,6,Prompt
AG,260,32,1,1,0,0,^V00
E
~Z

Printer will reboot after the save the file. Yellow light stands for the printer is standby and waiting for print. Input the variable and prints labels. For instance:

APPLE

It will print 3 labels with APPLE on it.</td></tr>
<tr><td colspan="2">NOTE1 : Uses 0x13 to logout AUTOFR status. ~MDELF,AUTOFR to delete the saved file.
NOTE2 : If command included ^PAx, it would print label quantities according to “x”. No need to input print quantity.
NOTE3 : If push feed key while printer requests input variable, it equals to press “Enter” key which means input blank.</td></tr>
</table>

At,x,y,x_mul,y_mul,gap,rotationInverse,data - Text

<table>
<tr><td>Syntax</td><td colspan="3">At,x,y,x_mul,y_mul,gap,rotationInverse,data</td></tr>
<tr><td>Parameter</td><td colspan="3">t = Font type, see table below.</td></tr>
<tr><td></td><td colspan="3"><table>
<tr><th>Font</th><th>Points</th><th>Font style</th></tr>
<tr><td>A</td><td>6</td><td>Bitmap font, Code page 850</td></tr>
<tr><td>B</td><td>8</td><td>Bitmap font, Code page 850</td></tr>
<tr><td>C</td><td>10</td><td>Bitmap font, Code page 850</td></tr>
<tr><td>D</td><td>12</td><td>Bitmap font, Code page 850</td></tr>
<tr><td>E</td><td>14</td><td>Bitmap font, Code page 850</td></tr>
<tr><td>F</td><td>18</td><td>Bitmap font, Code page 850</td></tr>
<tr><td>G</td><td>24</td><td>Bitmap font, Code page 850</td></tr>
<tr><td>H</td><td>30</td><td>Bitmap font, Code page 850</td></tr>
<tr><td>I</td><td colspan="2">16x26 dots for US ASCII 8 bit</td></tr>
<tr><td>K</td><td colspan="2">OCR-B font</td></tr>
<tr><td>L</td><td colspan="2">OCR-A font</td></tr>
<tr><td>Zn, n = 1 ~ 9</td><td colspan="2">Asia font from 1 to 4</td></tr>
</table></td></tr>
<tr><td></td><td colspan="3">x = Hori of top-left position of text (unit: dot, 1mm = 8 dots in 203dpi printer; 1mm=12 dots in 300dpi printer)
y = Vert of top-left position of text (unit: dot, 1mm = 8 dots in 203dpi printer; 1mm=12 dots in 300dpi printer)
x_mu = Horizontally magnified up to 8 times as large
y_mul = Vertically magnified up to 8 times as large
gap = Distance of the character (unit: dot, 1mm = 8 dots in 203dpi printer; 1mm=12 dots in 300dpi printer)
rotationInverse = The rotation of ASCII text from 0 to 3, the Asian text rotation form 0 to 7
0→ 0° 1→ 90° 2→ 180° 3→ 270°
4→ 0° 5→ 90° 6→ 180° 7→ 270°
(0~3→rotated for all characters; 4~7→rotated individually for each character)
In addition, if the rotation parameter is followed with “I”, the text will be printed in inverse font.
To use UNICODE please setup as below:
E → UTF8 L → UTF16 LO H → UTF16 HI (UTF16 characters should be end up with 4 0x00)
Data = data string, it includes Constant, Date information (^D), Time information (^T), Serial variable (^Cx) and Variable data (^Vxx).</td></tr>
<tr><td>Description</td><td colspan="3">Prints an ASCII or ASIA text string. The ASCII text oriented form left to right, the Asian text from left to right or top to bottom.</td></tr>
<tr><td>Sample</td><td colspan="3"> 

Text Rotation
Rotation with Inverse</td></tr>
</table>

AT,x,y,w,h,g,s,d,m,data - Print built-in true type font

Syntax	**AT,x,y,w,h,g,s,d,m,data**
Parameter	x = Hori of left-top position of text (unit: dot, 1 mm = 8 dots or 12 dots) y = Vert of left-top position of text (unit: dot, 1 mm = 8 dots or 12 dots) w = The width of font (8~2000 dot) h = The height of font (8~2000 dot) g = Space between characters (0~200 dot) s = Font setting. It consists of 2 parts, one is rotation setting and the other is font style setting. The rotation setting is from 0 to 3: 0 → 0° 1 → 90° 2 → 180° 3 → 270° The font style setting is optional setting. It includes 3 types, can be set with none, one, two or three together: B → Bold T → Italic U → Underline To use UNICODE please setup as below: E → UTF8 L → UTF16 LO H → UTF16 HI (UTF16 characters should be end up with 4 0x00) d = DType, 0 → ASCII m = m = 0 → width/height AspectRatio mode m = 1 → Average width mode (refer to Further Information) data = Data to be printed *Portions of this software are copyright 2000-Feb-08 The FreeType Project (www.freetype.org).
Description	Print built-in True Type Font (TTF).
Further Information	In width/height AspectRatio mode (m = 0): When the width (w) and the height (h) of TTF are equal, the printing result of TTF will be exactly the same with Windows font. There is a formula to calculate the Windows font size from TTF size: TTFheightsize = WindowsFontsize*dpi/72 For example, if user want to print Windows font 72pt on 203dpi printer, then the TTFheightsize = 72*203/72 = 203. And the TTFwidthsize should be equal to TTFheightsize, which is 203. As a result, when the width and height of TTF both are 203, the printout will be the same with Windows font 72pt.
	In Average width mode (m = 1): The height in dot is calculated the same as width/height AspectRatio mode, but the width is the average width in dots. If width=0, a 1:1 aspect ratio font is rendered.
Sample	AT,48,92,90,90,0,0,0,0,01234ABCDE → 
	AT,50,324,90,90,0,0BTU,0,0,01234ABCDE → 

【*Note*】

For conversion: 1mm = 8 dots when printing with 203dpi printer; 1mm = 12 dots when printing with 300dpi printer.

ATt,x,y,w,h,g,s,d,m,data - Print downloaded true type font

Syntax	**ATt,x,y,w,h,g,s,d,m,data**
Parameter	t = TTF type, accepted values: from A to Z **d=1, Type A~E** ^XSET,TEXTBLOCK,n x = Hori of left-top position of text (unit: dot, 1 mm = 8 dots or 12 dots) y = Vert of left-top position of text (unit: dot, 1 mm = 8 dots or 12 dots) w = The width of font (8~2000 dot) h = The height of font (8~2000 dot) g = Space between characters (0~200 dot) s = Font setting. It consists of 2 parts, one is rotation setting and the other is font style setting. The rotation setting is from 0 to 3: 0 → 0° 1 → 90° 2 → 180° 3 → 270° The font style setting is optional setting. It includes 3 types, can be set with none, one, two or three together: B → Bold T → Italic U → Underline To use UNICODE please setup as below: E → UTF8 L → UTF16 LO H → UTF16 HI (UTF16 characters should be end up with 4 0x00) d = DType → 0: ASCII A~Z: Unicode table 1: Transform Text into Image by GoAPP m = 0 → width/height AspectRatio mode m = 1 → Average width mode (refer to Further Information) data = Data to be printed
Description	Print downloaded True Type Font.
Further Information	In width/height AspectRatio mode (m = 0): When the width (w) and the height (h) of TTF are equal, the printing result of TTF will be exactly the same with Windows font. There is a formula to calculate the Windows font size from TTF size: TTFheightsize = WindowsFontsize*dpi/72 For example, if user want to print Windows font 72pt on 203dpi printer, then the TTFheightsize = 72*203/72 = 203. And the TTFwidthsize should be equal to TTFheightsize, which is 203. As a result, when the width and height of TTF both are 203, the printout will be the same with Windows font 72pt.
	In Average width mode (m = 1): The height in dot is calculated the same as width/height AspectRatio mode, but the width is the average width in dots. If width=0, a 1:1 aspect ratio font is rendered.

Bt,x,y,narrow,wide,height,rotation,readable,data - Barcode

Syntax	Bt,x,y,narrow,wide,height,rotation,readable,data
Parameter is not valid	Parameter is not processed.

Parameter

type	Barcode	type	Barcode
A	Code 39 STD	O	Codabar
A2	Code 39 STD w check	P	Code 93
A3	Code 39 full ASCII	Q	Code 128 (auto)
A4	Code 39 full ASCII w check	Q2	Code 128 (subset A/B/C)
A5	Code 39 STD w check & *	QI	ISBT (備註1)
A6	Code 39 STD w *	R	UCC 128
A7	Logmars (備註1)	S	Post NET
A8	Code 32	S1	Planet 11 & 13 digit (備註1)
B	EAN 8	S2	Japanese Postnet (備註1)
C	EAN 8 - Add ON 2	T	ITF 14 (DUN14)
D	EAN 8 - Add ON 5	U	EAN 128
E	EAN 13	V	RPS 128
F	EAN 13 - Add ON 2	W	~~China Postal Code~~
G	EAN 13 - Add ON 5	X	HIBC (Code 39)
H	UPC A	X1	HIBC (Code 128)
I	UPC A - Add ON 2	Y	MSI 1 MOD 10
J	UPC A - Add ON 5	Y2	MSI 2 MOD 10
K	UPC E	Y3	MSI 1 MOD 11 & 10
L	UPC E - Add ON 2	Y4	MSI no digit check
M	UPC E - Add ON 5	Z	I 2 of 5 with Shipping Bearer Bars
N	I 2 of 5	1	UCC/EAN-128 K-MART
N2	I 2 of 5 with check digit	2	UCC/EAN-128 RANDOM
N3	I 2 of 5 with not readable check digit (備註1)	3	Telepen
N4	Standard 2 of 5 (備註1)	4	FIM
N5	Industrial 2 of 5 (備註1)	7	Plessey (備註1)
N6	Matrix 2 of 5 (備註2)	001	German Post Code

x = Hori. of top-left position of barcode (unit: dot, 1 mm = 8 dots or 12 dots)
y = Vert. of top-left position of barcode (unit: dot, 1 mm = 8 dots or 12 dots)
narrow (x dimension) = narrow bar from 1 ~ 10 dots(0.125 ~ 1.25 mm)
**DUN 14 narrow setting from 5 ~ 8 dots; UPC/EAN narrow setting from 2 ~ 4 dots **
wide = wide bar from 2 ~ 30 dots(0.25 ~ 0.5 mm); **CODE 39, 93, CODABAR & I 2 of 5**
height = Barcode height in dots (24 ~ 1200 dots)
rotation = rotation of barcode (0 ~ 3)
0) 0° 1) 90° 2) 180° 3) 270°
readable =
0 – human readable off
1 – below barcode, left
2 – above barcode, left
3 – below barcode, centered
4 – above barcode, centered
5 – below right
6 – above right
data = barcode data, it includes Constant, Date information (^D), Time information (^T), Serial variable (^Cx) and Variable data (^Vxx).

Description	列印各種不同條碼 , 詳見各範例 (備註1) Works with firmware versionV1.00D and V2.005 or later (備註2) Works with firmware versionV1.00G and V2.00A or later
Example	Please refer to Appendix1 to see all 1D and 2D barcodes sample and commands.

B5n,x,y,narrow,segment,height,rotation,readable,data - lay out GS1 Databar

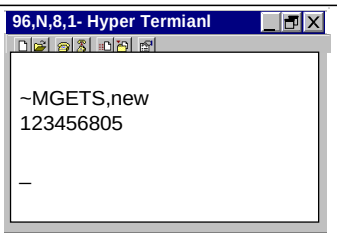
Syntax	**Bt,x,y,narrow,wide,height,rotation,readable,data**
Parameter	n = The type of GS1 Databar, see table below.

"n"	GS1 Databar type	"n"	GS1 Databar type
0	GS1 Databar Omnidirectional	4	GS1 Databar Limited
1	GS1 Databar Truncated	5	GS1 Databar Expanded
2	GS1 Databar Stacked	6	GS1 Databar Expanded Stacked
3	GS1 Databar Stacked Omnidir.		

x = Hori. of top-left position of barcode (unit: dot, 1 mm = 8 dots or 12 dots)
y = Vert. of top-left position of barcode (unit: dot, 1 mm = 8 dots or 12 dots)
narrow (x dimension) = narrow bar from 1 ~ 10 dots(0.125 ~ 1.25 mm)
Segment = the width setting of data segment from 2 ~ 22, only applied on "GS1 Data bar Expanded Stacked". When the data length exceeds the segment setting, the barcode will add more line automatically to contain all data. The maximum number of barcode lines is 11.
Height = not available yet, please always enter "0".
rotation = rotation of barcode (0 ~ 3)
0) 0° 1) 90° 2) 180° 3) 270°
readable = set to show human readable text
0 – human readable off; 1 – below barcode, left
Data = barcode data, it includes Constant, Date information (^D), Time information (^T), Serial variable (^Cx) and Variable data (^Vxx).

C#x,y,±value,z - Print count with serial file

<table>
<tr><td>Syntax</td><td colspan="2">C#x,y,±value,z</td></tr>
<tr><td>Parameter</td><td colspan="2">x = counter index
y = serial file name
±value = ±value of serial variable (up to 12-digit)
z =’0’~’9’ or ‘B’ for decimal, ‘A’ for hexadecimal, ‘C’ for 0~9,A~Z</td></tr>
<tr><td>Description</td><td colspan="2">Set print count with serial file by this command.</td></tr>
<tr><td rowspan="3">Example</td><td>~L,SERIAL,new,123456795</td><td>Download the new file to printer first</td></tr>
<tr><td>Turn printer off
Turn printer on.
Print again.

^Q60,0,0
^P5
^L
C#0,new,+1,0
AG,50,137,1,1,0,0,^C0
E</td><td>Print Result:
123456800
123456801
123456802
123456803
123456804</td></tr>
<tr><td>Key in ~MGETS, new in HyperTerminal</td><td> 
</td></tr>
</table>

Cx,ys,±value,prompt - Serial number setting

Syntax	**Cx,ys,±value,prompt**
Parameter	x = 0 to 9(up to10group), maximum combination up to 10 groups. y = select the decimal y → 0~9, set serial number as Decimal numbers, the value of "y" is included in "s" (start value of serial variable) as first digit. y → A, set serial number as Hexadecimal numbers, the value of "y" (e,g, A) is not included in "s" (start value of serial variable). y → C, set serial number as Base 36 numbers, the value of "y" (e,g, C) is not included in "s" (start value of serial variable). s = start value of serial variable (up to 29-digit). You can use the leading spaces to replace the leading zeros. ±value = ±value of serial variable (up to 28-digit) Prompt = prompt of serial variable (up to 20 characters), only applied on models with LCD or EZ-Viewer.
Description	Set the serial number
Example	^Q50,0,0 ^W100 ^H10 ^P3 ^L Dy2-me-dd Th:m:s C0,000,+1,Prompt C1, 1,+1,Prompt C2,AEE,+1,Prompt1 C3,CZYY,+1,Prompt2 AC,80,10,1,1,0,0,decimal with leading zeros: ^C0 AC,80, 80,1,1,0,0,decimal with leading spaces: ^C1 AC,80,160,1,1,0,0,hexadecimal: ^C2 AC,80,240,1,1,0,0, 0~9 A~Z: ^C3 E

decimal with leading zeros: 002
decimal with leading spaces: 3
hexadecimal: F0
0~9 A~Z: ZZ0

decimal with leading zeros: 001
decimal with leading spaces: 2
hexadecimal: EF
0~9 A~Z: ZYZ

decimal with leading zeros: 000
decimal with leading spaces: 1
hexadecimal: EE
0~9 A~Z: ZYY

Daa|bb|cc - Define date layout

Syntax	**Daa|bb|cc**		
Parameter	aa = Year y2: Year with two digits (such as 97) y4: Year with four digits (such as 1997) bb = Month me: Month in letters (JAN, FEB, ...) mn: Month in numeric (01, 02, ...) cc = day of 2 digits | = Partition, can be any ASCII character from decimal 32 to 63. Djj1: Julian calendar format(YYDD) Djj2: Julian calendar format(YDDD) Dwy1: week of year format(W) Dwy2: week of year format(WW) Dwn: day-of-week as number value Dw1: day-of-week as 3 letter abbreviation Dw2: day-of-week as complete Dm1: month of the year as 3 letter abbreviation Dm2: month of the year as a complete name		
Description	Define the date layout for print out		
Example	^Q100,0,0 ^W100 ^L Dy2-me-dd AD,36,40,1,1,0,0,^D Djj1 AD,36,80,1,1,0,0,^D Dwy1 AD,36,120,1,1,0,0,^D Dw1 AD,36,160,1,1,0,0,^D Dm1 AD,36,200,1,1,0,0,^D Dy4/mn/dd AD,36,280,1,1,0,0,^D Djj2 AD,36,320,1,1,0,0,^D Dwy2 AD,36,360,1,1,0,0,^D Dw2 AD,36,400,1,1,0,0,^D Dm2 AD,36,440,1,1,0,0,^D Dwn AD,36,530,1,1,0,0,^D AC,228,82,1,1,0,0,julian date format AC,228,124,1,1,0,0,week of year format AC,228,166,1,1,0,0,day-of-week as 3 letter abbreviation AC,228,210,1,1,0,0,month of the year as 3 letter abbreviation AC,228,318,1,1,0,0,julian date format AC,228,360,1,1,0,0,week of year format AC,228,402,1,1,0,0,day-of-week as complete AC,228,446,1,1,0,0,month of the year as a complete name AC,228,532,1,1,0,0,day-of-week as number value AC,228,40,1,1,0,0,Date layout AC,228,274,1,1,0,0,Date layout E	05-APR-15 5105 15 Fri Apr 2005/04/15 05105 15 Friday April 5	Date layout Julian date format Week of year format Day of week as 3 letter abbreviation Month of the year as 3 letter abbreviation Date layout Julian date format Week of year format Day-of-week as complete Month of the year as a complete name Day of week as number value

E - Terminate label formatting mode and print label

Syntax	**E**

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

FILEDB,OPEN,name - Open database

Syntax	**FILEDB,OPEN,name**
Parameter	name = the name of the database
Description	Open a database for printing.
Example	FILEDB,OPEN,customer

FILEDB,MOVE,n - Move data record

Syntax	**FILEDB,MOVE,n**	
Parameter	n = number n = FIRST, the first record n = LAST, the last record n = NEXT, the next record n = PRIOR, the prior record	
Description	Use variable or counter to select a specific record from the database.	
Example	FILEDB,MOVE,3 FILEDB,MOVE,FIRST FILEDB,MOVE,NEXT	Move to third record Move to first record Move to next record

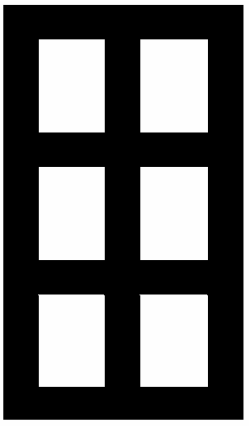
FILEDB,FIND,x,y - Searching from database

Syntax	**FILEDB,FIND,x,y**	
Parameter	x =Column name in database file y =Keyword for searching	
Description	Select a specific record form database and print it.	
Example	Download database “customer” : ^Q60,0,0 ^P1 ^L FILEDB,OPEN,customer V00,10,Prompt0 V#LINKDB,PHONE,V00 FILEDB,FIND,NAME,Mary AC,79,120,1,1,0,0, Marry’s phone: ^V00 E	Find Mary’s data and print it.

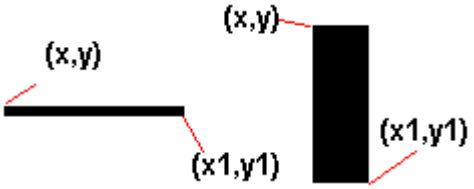
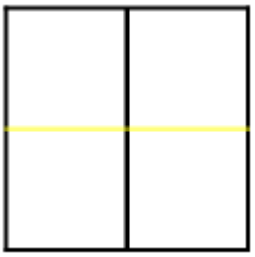
Gwxxx - Graphic command

Syntax	**Gwxxx**
Parameter	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. For example, if the image file is 50 bytes, the command is G2xxx. (2: ASCII is 50 decimal)
範例	 ^Q35,0,10 ^W70 ^H10 ^S4 ^R0 ~G G<€ @ G<@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@ G<@ G<@ G<@ G<
	@ G<@ G<@ E ~G = start Graphical receive mode

Hx,y,col_count,row_count,col_width,row_width,line_width – Table command drawing

Syntax	**Hx,y,col_count,row_count,col_width,row_width,line_width**	
Parameter	x = left-upper Hori .pos. (unit: dots) y = left-upper Vert. Pos. (unit: dots) col_count = number of columns row_count = number of rows col_width = column width row_width = row width line_width = line width	
Description	Draw a table in the label.	
Example	^Q50,0,3 ^W171 ^H10 ^P1 ^S4 ^AT ^C1 ^R0 ~Q+0 ^O0 ^D0 ^E14 ~R200 ^L Dy2-me-dd Th:m:s H20,20,2,3,20,30,10 E	

La,x,y,x1,y1 - Line command drawing

Syntax	**La,x,y,x1,y1**	
Parameter	a = o, overwrite the line on the bottom a = e, exclusive the line on the bottom x = left-up; per horizontal(Hori.) pos. (unit: dots; 1mm= 8 dots or 12 dots) y = left-upper vertical (Vert.) pos. (unit: dots; 1mm= 8 dots or 12 dots) x1 = right-bottom Hori. Pos. (unit: dots) y1 = right-bottom Vert. Pos. (unit: dots)	
Description	Define a line to render in the label *Note: The diagonal line draw is not available.	
Example	^Q50,0,0 ^W50 ^H15 ^P1 ^S2 ^L Dy2-me-dd Th:m:s R08,08,252,252,4,4 Lo,128,010,132,250 Le,008,128,252,132 Ls,008,010,4,248,250 Ls,248,010,4,008,250 E	Result 

Mx,y,sno,nos,mode,ccode,zip,class,rotation,message - Print Maxicode

Syntax	**Mx,y,sno,nos,mode,ccode,zip,class,rotation,message**
Parameter	x = Hori. of left-bottom pos. of barcode (unit: dots). y = Vert. of left-bottom pos. of barcode (unit: dots). sno = symbol number, in set of symbols: 1 ~ 8. nos = number of symbols in set of symbols: 1 ~ 8 sets. mode = mode of maxicode 2, 3, 4 or 6. ccode = 3 digits country code. zip = postal code 9 digits for US style postal code. If there is a 5 digits zip code, 4 zeros must be padded 6 digits alphanumeric zip code for non-US style postal code. class = service class, 3 digits numeric. rotation = rotation of barcode (0 ~ 3) 0) 0° 1) 90° 2) 180° 3) 270° message = 1 ~ 84 characters.
Description	Print a 2 dimensional Maxicode

Px,y,w,h,r,c,ec,len,rotation - Print PDF 417

Syntax	**Px,y,w,h,r,c,ec,len,rotation** Data
Parameters	x = Hori. of left-bottom pos. of barcode (unit: dots) y = Vert. of left-bottom pos. of barcode (unit: dots) w = Width (x dimension) of the narrowest element (bar or space) in the barcode. h = Height (y dimension) of each barcode row in the symbol. r = number of barcode rows, from 3 to 90. If you key in 0, printer will count all the rows. c = number of barcode columns, from 1 ~ 30. If you key in 0, printer will count the all columns. ec = error correction level: 0 ~ 8. len = number of encoded data bytes, including carriage returns ↵ and line feed. rotation = rotation of barcode (0 ~ 3) 0) 0° 1) 90° 2) 180° 3) 270° Data = data to be encoded (the length of the data must be equal to the set value of "len"; up to 1024 characters)
Description	Print a 2 dimensional PDF417 code

PCx,y,w,h,r,c,ec,max_len,rotation - PDF 417 with variable length data

Syntax	**PCx, y, w, h, r, c, ec, max_len,rotation** &*Data&*	
Parameter	x = Hori. of left-bottom pos. of barcode (unit: dots) y = Vert. of left-bottom pos. of barcode (unit: dots) w = Width (x dimension) of the narrowest element (bar or space) in the barcode. h = Height (y dimension) of each barcode row in the symbol. r = number of barcode rows, from 3 to 90. If you key in 0, printer will count all the rows. c = number of barcode columns, from 1 ~ 30. If you key in 0, printer will count the all columns. ec = error correction level: 0 ~ 8. max_len = max of number encoded data bytes, including carriage returns ↵ and line feed. rotation = rotation of barcode (0 ~ 3) 0) 0° 1) 90° 2) 180° 3) 270° Data = data to be encoded. The content of data must be enclosed with "&*" sign on the beginning and the end.	
Description	To adjust the PDF 417 data length by this command	
Example	^Q50,0,0 ^L PC141,104,3,5,3,3,3,50 &*0123456789 Line2 Line3 9876543210&* E	(Data read from CCD: 0123456789[CR][LF]Line2[CR][LF]Line3[CR][LF]9876543210) 

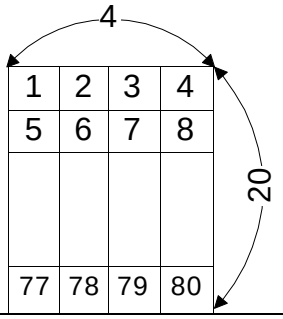
PMx,y,w,h,mode,length,rotation – Micro PDF 417

Syntax	**PMx,y,w,h,mode,length,rotation** Data
Parameter	x = Hori. of left-bottom pos. of barcode (unit: dots) y = Vert. of left-bottom pos. of barcode (unit: dots) w = Width (x dimension) of the narrowest element (bar or space) in the barcode. 0~50 unit : dots h = Height (y dimension) of each barcode row in the symbol. 0~50 unit : dots mode = 0 ~ 33. length = number of encoded data bytes, including carriage returns ↵ and line feed. 0~400 rotation = rotation of barcode (0 ~ 3) 0) 0° 1) 90° 2) 180° 3) 270° Data = data to be encoded (the length of the data must be equal to the set value of "len"; up to 1024 characters)
Description	Print a 2D Micro PDF417 code
Example	PM100,100,6,8,3,10,3 1234567890

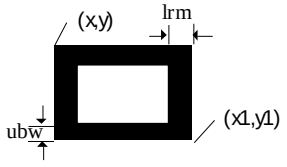
Table 9 • MicroPDF417 Mode

Mode (M)	Number of Data Columns	Number of Data Rows	% of Cws for EC	Max Alpha Characters	Max Digits
0	1	11	64	6	8
1	1	14	50	12	17
2	1	17	41	18	26
3	1	20	40	22	32
4	1	24	33	30	44
5	1	28	29	38	55
6	2	8	50	14	20
7	2	11	41	24	35
8	2	14	32	36	52
9	2	17	29	46	67
10	2	20	28	56	82
11	2	23	28	64	93
12	2	26	29	72	105
13	3	6	67	10	14
14	3	8	58	18	26
15	3	10	53	26	38
16	3	12	50	34	49
17	3	15	47	46	67
18	3	20	43	66	96
19	3	26	41	90	132
20	3	32	40	114	167
21	3	38	39	138	202
22	3	44	38	162	237
23	4	6	50	22	32
24	4	8	44	34	49
25	4	10	40	46	67
26	4	12	38	58	85
27	4	15	35	76	111
28	4	20	33	106	155
29	4	26	31	142	208
30	4	32	30	178	261
31	4	38	29	214	313
32	4	44	28	250	366
33	4	4	50	14	20

Qx,y,width,height - Pattern command

Syntax	**Qx,y,width,height** Data...	
Parameters	x = Hori. of left-bottom pos. (unit: dots). y = Vert. of left-bottom pos. (unit: dots). width = width of graphic (unit: byte) height = height of graphic (unit: dots) (data length = width x height)	
Description		Data send out 1 2 3 4 .....77 78 79 80 width = 4 ; height = 20 (data length: 4x20 = 80) (refer to page81)

Rx,y,x1,y1,lrw,ubw – Rectangle drawing

Syntax	**Rx,y,x1,y1,lrw,ubw**	
Parameter	x = left-upper Hori .pos. (unit: dots) y = left-upper Vert. Pos. (unit: dots) x1 = right-bottom Hori. Pos. (unit: dots) y1 = right-bottom Vert. Pos. (unit: dots) lrw = thickness of left, right border (unit: dots) ubw = thickness of upper bottom border (unit: dots)	
Description	Draw a rectangle in the label	

Th|m|s – Internal real-time setting

Syntax	**Th|m|s**
Parameter	h = Hour format (2 digits, 00 ~ 23) m = Minute format (2 digits, 00 ~ 59) s = Second format (2 digits, 00 ~ 59) | = Partition (It can be any separator between dec. 32 to 63 of ASCII).
Description	Define the time layout for internal real-time clock

V#ADD,name,size,prompt - Store variable with a name

Syntax	**V#ADD,name,size,prompt**	
Parameters	name = descriptive name size = number of character prompt = prompt of variable	
Description	The name of the variable can be defined by user.	
Example	~MDELF,aaa ^Faaa ^Q50,0,3 ^AD ^L V#ADD,weight,10,Weight V#ADD,date,15,Date AE,7,46,1,1,0,0,Weight is ^(weight) AE,7,86,1,1,0,0,Date is ^(date) E ^Kaaa 16 kg 11/26/2004 E ~P1	Weight is 16 kg Date is 11/26/2004

V#ADDCHKSUM,x - Add modulus 10 check code

Syntax	**V#ADDCHKSUM,x**	
Parameters	x = variable	
Description	Add the modulus 10 check code to x	
Example	Add modulus 10 check code to V00 ~MDELF,test ^Ftest ^Q60,0,0 ^L V00,16,Prompt V#ADDCHKSUM,V00 AE,47,57,1,1,0,0,Date:^V00 E ^Ktest 111222333 E ~P1	Print result Enter Variable value 111222333 Print result 1112223332

V#ADDCHKSUM43,x - Add modulus 43 check code

Syntax	V#ADDCHKSUM43,x	
Parameters	x = variable	
Description	Add the modulus 43 check code to x	
Example	Add modulus 43 check code to V00 ~MDELF,test ^Ftest ^Q60,0,0 ^L V00,16,Prompt V#ADDCHKSUM43,V00 AE,47,57,1,1,0,0,Date:^V00 E ^Ktest 111222334 E ~P1	 Print result Enter Variable value 111222333 Print result 111222334

V#LINKDB,x,y - Like a Variable name for dBase data

Syntax	**V#LINKDB,x,y**
Parameter	x = Column name of database y = Variable
Description	Set a Variable name for dBase data. Before using this command, a dBase data should opened first, and then can link dBase data to print designate data out. The number of links is limited to 10.

V#OPx,p1,p2,p3 - Variable calculation

Syntax	**V#OPx,p1,p2,p3**	
Parameters	x = +, -, *, /, % ; p1,p2,p3= variable x = +, p1=p2+p3 x = -, p1=p2-p3 x = *, p1=p2*p3 x = /, p1=p2/p3 x = %, p1=p2%p3	
Description	This command can calculate variables. *Note: the calculation result will be rounded off to integer value.	
Example	V#OP+,V00,V01,V02 V#OP-,V00,V01,V02 V#OP*,V00,V01,V02 V#OP/,V00,V01,V02 V#OP%,V00,V01,V02	V00=V01+V02 V00=V01-V02 V00=V01*V02 V00=V01/V02 V00=V01%V02

V#RENAME,name,x - Variable rename

Syntax	**V#RENAME,name,x**	
Parameters	name = new name of the variable (max 8 characters) x = variable	
Description	Rename the variable.	
Example	~MDELF,aaa ^Faaa ^Q50,0,3 ^AD ^L V00,10,Prompt V01,10,Prompt V#RENAME,weight,V00 V#RENAME,date,V01 AE,7,46,1,1,0,0,Weight is ^(weight) AE,7,86,1,1,0,0,Date is ^(date) E ^Kaaa 16 kg 11/20/2004 E ~P1	Weight is 16 kg Date is 11/20/2004

V#SETZERO,Vxx – Adjustment parameters bits with the same as parameter definition

Syntax	**V#SETZERO,Vxx**
Parameters	xx = 00 ~ 99 same as parameter definition.
Description	Adjustment parameters bits with the same as parameter definition

V#SET,FLOATFORMAT,X,Y,Vxx - handle the number of decimals

Syntax	**V#SET,FLOATFORMAT,X,Y,Vxx**	
Parameters	X : numbers after decimal point (0 ~ 127) Y = N : Rounded ; U : Round up ; = D : Round down xx = 00 ~ 99 same as parameter definition.	
Description	Use V#OPx,p1,p2,p3 and this command to perform floating point operation	
Example	Send command : ~MDELF,001 ^F001 ^Q65,0,0 ^W100 ^L Dy2-me-dd Th:m:s V00,20,V00 V01,20,V01 V02,20,V02 V03,20,V03 V04,20,V04 V05,20,V05 V06,20,V06 V#OP+,V02,V00,V01 V#OP-,V03,V00,V01 V#OP*,V04,V00,V01 V#OP/,V05,V00,V01 V#OP%,V06,V00,V01 V#SET,FLOATFORMAT,3,N,V02 V#SET,FLOATFORMAT,3,N,V03 V#SET,FLOATFORMAT,4,U,V04 V#SET,FLOATFORMAT,5,D,V05 V#SET,FLOATFORMAT,3,N,V06 V#SET,UNPROMPT,V02 V#SET,UNPROMPT,V03 V#SET,UNPROMPT,V04 V#SET,UNPROMPT,V05 V#SET,UNPROMPT,V06 AE,040,30,1,1,0,0,TEST Variable calculation AF,080,110,1,1,0,0,^V00 + ^V01 = ^V02 AF,080,190,1,1,0,0,^V00 - ^V01 = ^V03 AF,080,280,1,1,0,0,^V00 X ^V01 = ^V04 AF,080,360,1,1,0,0,^V00 / ^V01 = ^V05 AF,080,440,1,1,0,0,^V00 % ^V01 = ^V06 E ^K001 144.14 13.088 E ~P1	Print result : TEST Variable calculation 144.14 + 13.088 = 157.228 144.14 – 13.088 = 131.052 144.14 x 13.088 = 1886.5044 144.14 / 13.088 = 11.01314 144.14 % 13.088 = 1

V#SET,PROMPTONCE,Vx –only prompt the variable once while printing

Syntax	**V#SET,PROMPTONCE,Vx**
Parameters	Vx = number of Variable
Description	Printer will be asked for the variable only once when repeat print the same label format. x = variable
Example	V#SET,PROMPTONCE,V00

V#SET,THOUFORMAT,V00ab[c]

Syntax	**V#SET,THOUFORMAT,V00ab[c]**	
Parameters	a = the symbol will be displayed at Thousand point b = the symbol will be displayed at Decimal point c = the symbol will be displayed at End of number	
Description	The symbol will be displayed at Thousand point, Decimal point and End of number	
Example	Send command : ^Q50,0,0 ~MDELF,TEST ^FTEST ^L V00,10,V00 V01,10,V01 V02,10,V02 V#SET,UNPROMPT,V02 V#SET,FLOATFORMAT,2,0,V02 V#SET,THOUFORMAT,V02,,, V#OP+,V02,V00,V01 R22,14,774,378,10,10 AH,100,050,1,1,0,0,V00 = ^V00 AH,100,150,1,1,0,0,V01 = ^V01 AH,100,250,1,1,0,0,V02 = ^V02 E ^KTEST 1411.12 1333.23 ~P1 E	Print result : V00 = 1411.12 V01 = 1333.23 V02 = 2,744,35,

V#SET,UNPROMPT,x - Disable variable prompt

Syntax	**V#SET,UNPROMPT,x**	
Parameters	x = variable	
Description	This command can set the variable without prompt.	
Example	V#OP+,V00,V01,V02 V#SET,UNPROMPT,V00	Use doesn't need to input the value of V00

V#STRCPY,x,y - Copy all of variable data

Syntax	**V#STRCPY,x,y**	
Parameters	x = target variable y = source variable	
Description	Copy all data of y to x	
Example	V#STRCPY,V00,V01	Copy all of V01 data to V00

V#STRSUB,x,y,first,length - Copy part of Variable value

Syntax	**V#STRSUB,x,y,first,length**	
Parameters	x = target variable y = source variable first = the position of first character length = the number of characters	
Description	Copy part of y value to x	
Example	Copy year, month and day values respectively from a whole date variable. ~MDELF,test ^Ftest ^Q60,0,0 ^L V00,16,PromptV0 V01,16,PromptV1 V02,16,PromptV2 V03,16,PromptV2 V#STRSUB,V01,V00,5,2 V#STRSUB,V02,V00,8,2 V#STRSUB,V03,V00,0,4 V#SET,UNPROMPT,V01 V#SET,UNPROMPT,V02 V#SET,UNPROMPT,V03 AE,47,57,1,1,0,0,Date:^V00 AE,38,115,1,1,0,0,Month:^V01 AE,38,155,1,1,0,0,Day:^V02 AE,38,205,1,1,0,0,Year:^V03 E ^Ktest 2005/01/31 E ~P1	Print result: Date:2005/01/31 Month:01 Day:31 Year:2005

Vt,x,y,x_mul,y_mul,gap,rotationInverse,data - Print with downloaded character sets

Syntax	**Vt,x,y,x_mul,y_mul,gap,rotationInverse,data**	
Parameter	t = the font name; from A ~ Z To use UNICODE please setup as below: E → UTF8 L → UTF16 LO H → UTF16 HI (UTF16 characters should be end up with 4 0x00) data = Data string (up to 239 characters).	
Description	Download Bit-Mapped font to memory. All parameters are all the same with text command	
Example	VA,5,10,1,1,1,0,data	The name of font “A”

Vxx,length,prompt[,jnl][,sab] - Store variable

Syntax	**Vxx,length,prompt**
Parameter	xx = a code name of the variable, from 00 ~ 99 length = number of characters (up to 98 characters). prompt = prompt of variable (maximum up to 20 characters) j = Justification option n = l(for left), c(for center), r(for right) l = the length of entire string in millimeters (100mm for 4” printer ; 50mm for 2” printer) s = intercept option ; a = n , b = the length of intercept string a = p , b = the ending string of data
Description	Define variables for further use. If the input data characters more than the setup data length, firmware would only take the setup date length. For example, length = 3 , input date = apple . Printer will only print “app” (the first 3 words)

Wx,y,mode,type,ec,mask,mul,len,roatae<CR>data - Arrange QR code and Micro QR Code

Syntax	**Wx,y,mode,type,ec,mask,mul,len,roatae<CR>** **data**	
Parameters	x = Hori. of left-bottom pos. of barcode (unit: dots) y = Vert. of left-bottom pos. of barcode (unit: dots) mode = input mode (1 ~ 5) 1 → Numerical data mode 2 → Alpha numerical data mode 3 → 8-bit data mode* 4 → Kanji data mode 5 → Mixing mode (not available in Micro QR Code) type = barcode type (1 ~ 2) 1 → Model1 (original) 2 → Model2 (enhanced) 3 → Micro QR code ec = error correction level (L、M、Q、H) L → Low M → Medium Q → Medium high H → High (not available in Micro QR Code) mask = masking factor (0 ~ 7 or 8 for auto). When printing with Micro QR code, it must be set to "0". mul = multiple (1 ~ 40) len = number of encoded data bytes, including carriage returns ↵ and line feed. roatae =rotation of barcode (0 ~ 3) 0) 0° 1) 90° 2) 180° 3) 270° data = bar code data. *Note: if input mode is set to 8-bit data mode, the first four digits of bar code data must indicate the data length in bytes. For example, if first four digits are 0015, that means the data length of following bar code content must be 15 bytes.	
Description	Arrange QR-code by setting.	
Example	Q50,0,0 ^L W10,10,2,1,L,8,10,36,0 0123456789ABCDEFGHIJKLMNOPQRSTUV WXYZ E	Data mode: 2 Model type: 1 Error level: L Masking factor: 8 Multiple:10 Data length: 36 

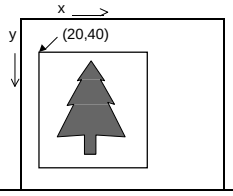
XRBx,y,enlarge,rotation,length<CR>data - Arrange DataMatrix Code

Syntax	**XRBx,y,enlarge,rotation,length<CR>** **data**
Parameters	x = Horizontal start position of barcode (unit: dots). y = Vertical start position of barcode (unit: dots). enlarge = Enlarge the DataMatrix Code 1~40 times (horizontally and vertically). rotation = rotation of barcode (0 ~ 3) 0) 0° 1) 90° 2) 180° 3) 270° length = data length (unit: bytes). data = bar code data.
Description	Arrange DataMatrix code.

XRBx,y,enlarge,rotationR,length<CR>data - Arrange Rectangular DataMatrix Code

Syntax	**XRBx,y,enlarge,rotationR,length<CR>** **data**
Parameters	x = Horizontal start position of barcode (unit: dots). y = Vertical start position of barcode (unit: dots). enlarge = Enlarge the DataMatrix Code 1~40 times (horizontally and vertically). rotationR = rotation of barcode (0R ~ 3R) 0R) 0° 1R) 90° 2R) 180° 3R) 270° length = data length (unit: bytes). data = bar code data.
Description	Arrange rectangular DataMatrix code.

Yx,y,name – Graphics file

Syntax	**Yx,y,name**	
Parameter	x = Hori. Pos. of left-upper of graphics (unit: dots) y = Vert. Pos. of left-upper of graphics (unit: dots) name = Name of graphics download, the variable data can also be accepted.	
Description	This command is for printing a graphic file that has been previously stored in printer memory.	
	Example: A graphic in printer named “Graphic1”, command Y20, 40; Graphic1 ↵ will put this graphic into label at position (20, 40).	

Zx,y,a,b,c,d,e,n<CR>data – Print Aztec Bar Code

Syntax	Zx,y,a,b,c,d,e,n<CR>data
Parameter	x = Hori. of left-bottom pos. of barcode (unit: dots). y = Vert. of left-bottom pos. of barcode (unit: dots). a = rotation of barcode (0 ~ 3) 0) 0° 1) 90° 2) 180° 3) 270° b = Magnification factor (1 to 10) 1 on 150 dpi printers 2 on 200 dpi printers 3 on 300 dpi printers 6 on 600 dpi printers c = extended channel interpretation code indicator Y = if data contains ECICs N = if data does not contains ECICs d = error control and symbol size/type indicator. If the input data is not numeric, the beginning will be 000. 0 = default error correction level 01 to 99 = error correction percentage (minimum) 101 to 104 = 1 to 4 – layer compact symbol 201 to 232 = 1 to 32 – layer full - range symbol 300 = a simple Aztec “Rune” e = menu symbol indicator Accepted Values Y = if this symbol is to be a menu (bar code reader initialization) symbol N = if it is not a menu symbol n = data length : maximum = 2000 data = bar code data
Description	Print a 2D Aztec
Example	Please refer to Appendix1 to see all 1D and 2D barcodes sample and commands.

LAN Set Commands

^NA,function[,p1] – setup SMTP

<table>
<tr><td>Syntax</td><td>^NA,function[,p1]</td></tr>
<tr><td>Parameter</td><td>Function = ENABLE: without “p1”, it wills response SMTP enables or disables status.
With “p1”. P1 = 0 disable SMTP , = 1 enable SMTP

USER : without “p1”, it will response USER string (login SMTP server account)
with “p1” = setup USER string
Ex. ^NA,USER,godex

PASS : without “p1”, it will response PASSWORD
with “p1” = setup PASSWORD 4 digits (login SMTP server password)
Ex. ^NA,PASS,0000

IP : without “p1”, it will response SMTP IP address
with “p1” = setup SMTP IP address
Ex. ^NA,IP,192.168.0.1

SUBJECT : without “p1”, it will response e-mail subject
with “p1” = setup e-mail subject
Ex. ^NA,SUBJECT,error message

FROM : without “p1”, it will response e-mail sender address
with “p1” = setup e-mail sender address
Ex. ^NA,FROM,godex@godexintl.com

TO : without “p1”, it will response e-mail receiver address
with “p1” = setup e-mail receiver address
Ex. ^NA,TO,godex@godexintl.com</td></tr>
<tr><td>Description</td><td>Refer to above Parameter explanation.</td></tr>
<tr><td>Example</td><td>Procedure :
<table><tr><td>PC to Printer</td><td>^NA,USER</td></tr><tr><td>Printer to PC</td><td>godex</td></tr><tr><td>PC to Printer</td><td>^NA,SUBJECT</td></tr><tr><td>Printer to PC</td><td>errormessage</td></tr></table></td></tr>
</table>

^NL[,TrapIP,Community] – setup SNMP

<table>
<tr><td>Syntax</td><td>^NL,TrapIP,Community</td></tr>
<tr><td>Parameter</td><td>Without “TrapIP,Community”, it will response SNMP setting
With “TrapIP,Community” = setup SNMP</td></tr>
<tr><td>Description</td><td>Setup SNMP or check SNMP setting</td></tr>
<tr><td>Example</td><td>Procedure :
<table><tr><td>PC to Printer</td><td>^NL</td></tr><tr><td>Printer to PC</td><td>192.168.0.1,public</td></tr></table></td></tr>
</table>

^NL,ENABLE,n –enable or disable SNMP

<table>
<tr><td>Syntax</td><td>^NL,ENABLE,n</td></tr>
<tr><td>Parameter</td><td>= 0 disable ; = 1 enable this function</td></tr>
<tr><td>Description</td><td>Without “n”, it will response the status of SNMP (enable or disable)
With “n” = setup SNMP enable or disable</td></tr>
<tr><td>Example</td><td>None</td></tr>
</table>

^NR[,p[,ei[,sw]]] –setup LAN response

<table>
<tr><td>Syntax</td><td>^NR[,p[,ei[,sw]]]</td></tr>
<tr><td>Parameter</td><td>p : 0 = adjust SMTP response setting ; 1 = adjust SNMP response setting.
ei : 0 – 11
0 = ERROR01 : PAPER_OUT_ID
1 = ERROR02：PAPER_JAM_ID
2 = ERROR03：RIBBON_OUT_ID
3 = ERROR04：DOOR_OPEN_ID
4 = ERROR05：STRIPPER_ERROR_ID
5 = ERROR06：MEMORY_FULL_ID
6 = ERROR07：FILENAME_NO_FOUND_ID
7 = ERROR08：FILENAME_REPEAT_ID
8 = ERROR09：SYNTAX_ERROR_ID
9 = ERROR10：DATA_LENGTH_ERROR_ID
sw : 0 = disable ; 1 = enable “ei” response function
If doesn’t input parameter or input inappropriate parameter, it will only response current status.</td></tr>
<tr><td>Description</td><td>Refer to above Parameter explanation</td></tr>
<tr><td>Example</td><td>Procedure :
<table>
<tr><td>PC to Printer</td><td>^NR</td></tr>
<tr><td>Printer to PC</td><td>SMTP : 1,1,1,1,1,1,1,1,1,1,0
SNMP : 1,1,1,1,1,1,1,1,1,1,1</td></tr>
<tr><td>PC to Printer</td><td>^NR,0</td></tr>
<tr><td>Printer to PC</td><td>SMTP : 1,1,1,1,1,1,1,1,1,1,0</td></tr>
<tr><td>PC to Printer</td><td>^NR,0,11</td></tr>
<tr><td>Printer to PC</td><td>0</td></tr>
</table></td></tr>
</table>

^NMACADDR[,addr] –setup or get MAC address information

Syntax	^NMACADDR[,addr]
Parameter	addr = MAC address
Description	Without “addr”, it will response MAC address With “addr” = setup MAC address
Example	^NMACADDR,001D9A000C16

^NS[a,b,c,d,e,f,g,h,I] –Set and request for NET connection parameters

<table>
<tr><td>Syntax</td><td>^NSa,b,c,d,e,f,g,h,i</td></tr>
<tr><td>Parameter</td><td>a: D(DHCP) or P(PERMANENT)
b: IP adress
c: subnet mask adress
d: gateway
e: reserved
f: reserved
g: reserved
h: reserved
i: port number</td></tr>
<tr><td>Description</td><td>Without parameter, it will response current network setting
With parameter = setup network</td></tr>
<tr><td>Example</td><td>Procedure :
<table>
<tr><td>PC to Printer</td><td>^NS</td></tr>
<tr><td>Printer to PC</td><td>D,192.168.0.1,255.255.255.0,192.168.0.1,,,,,9100</td></tr>
</table></td></tr>
</table>

^NW,BICONSHOW,n –Set The Display of Bluetooth Icon of LCD Main Menu

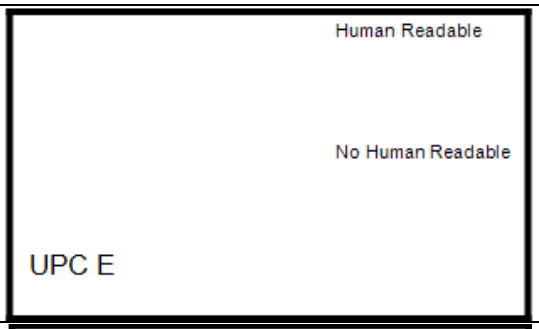
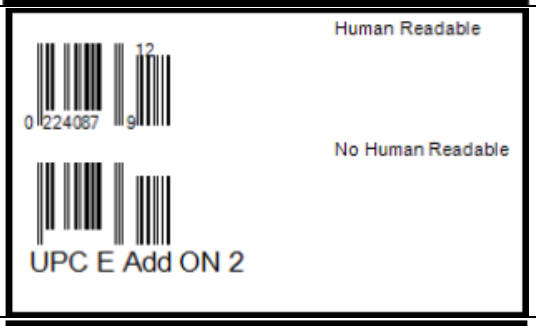
Syntax	^NW,BICONSHOW,n
effect & default	permanent , default = 1
parameter is not valid	Parameter is not processed.
Parameter	x = 0 , On the LCD main menu, BT doesn't display regardless of whether it BT card inserts or not inserts. x = 1, On the LCD main menu, BT icon displays along with the status of BT changes.
Description	Activate/deactivate the functions of LCD Bluetooth Icon
Example	^NW,BICONSHOW,1

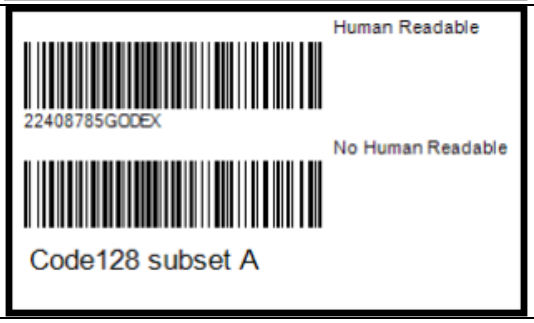
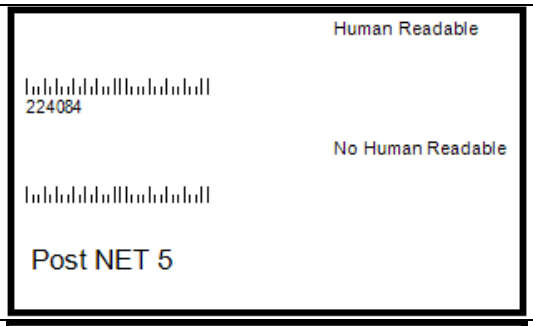
Appendix

I. Barcode Samples

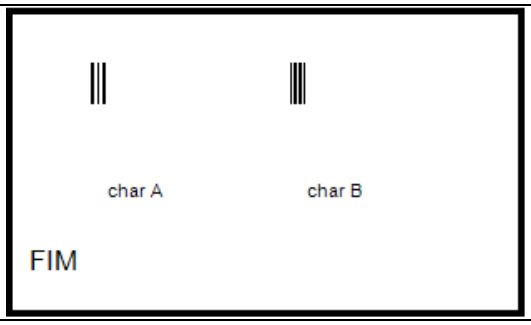
Barcode Type	Barcode Sample	Sample Commands
Code 39		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BA,30,57,2,6,80,0,1,22-.$ /+%40 BA,30,200,2,5,80,0,0,22-.$ /+%40 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,Code39 E
Code 39 with check digit		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BA2,30,57,2,6,80,0,1,22-.$ /+%40 BA2,30,200,2,5,80,0,0,22-.$ /+%40 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,Code39 with check E
EAN 8		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BB,30,57,2,5,80,0,1,22408785 BB,30,200,2,5,80,0,0,22408785 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,EAN8 E
EAN 8 - Add ON 2		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BC,30,57,2,5,80,0,1,2240878412 BC,30,200,2,5,80,0,0,2240878412 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,EAN8 Add ON 2 E
EAN 8 - Add ON 5		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BD,30,57,2,5,80,0,1,2240878512345 BD,30,200,2,5,80,0,0,2240878512345 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,EAN8 Add ON 5 E

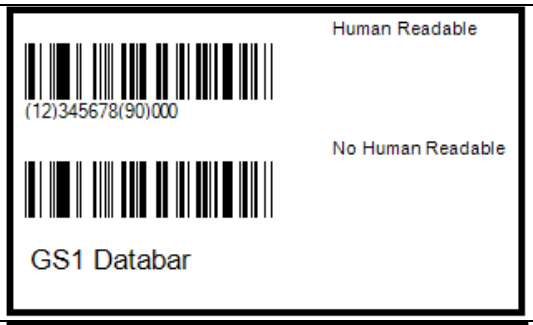
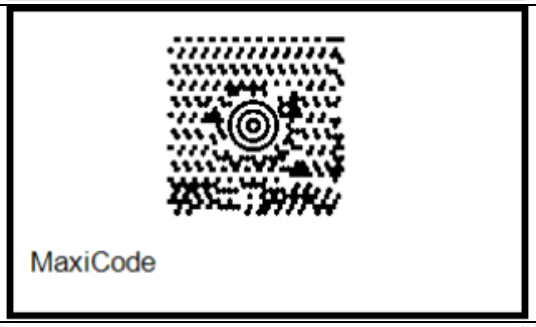
EAN 13		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BE,30,57,2,5,80,0,1,2240878500518 BE,30,200,2,5,80,0,0,2240878500518 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,EAN13 E
EAN 13 - Add ON 2		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BF,30,57,2,5,80,0,1,224087850051812 BF,30,200,2,5,80,0,0,224087850051812 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,EAN13 Add ON 2 E
EAN 13 - Add ON 5		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BG,30,57,2,5,80,0,1,224087850051812345 BG,30,200,2,5,80,0,0,224087850051812345 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,EAN13 Add ON 5 E
UPC A		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BH,30,57,2,5,80,0,1,224087855173 BH,30,200,2,5,80,0,0,224087855173 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,UPC A E
UPC A - Add ON 2		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BI,30,57,2,5,80,0,1,22408785517312 BI,30,200,2,5,80,0,0,22408785517312 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,UPC A Add ON 2 E
UPC A - Add ON 5		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BJ,30,57,2,5,80,0,1,22408785517312345 BJ,30,200,2,5,80,0,0,22408785517312345 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,UPC A Add ON 5 E

UPC E		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BK,30,57,2,5,80,0,1,2240879 BK,30,200,2,5,80,0,0,2240879 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,UPC E E
UPC E - Add ON 2		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BL,30,57,2,5,80,0,1,224087912 BL,30,200,2,5,80,0,0,224087912 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,UPC E Add ON 2 E
UPC E - Add ON 5		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BM,30,57,2,5,80,0,1,224087912345 BM,30,200,2,5,80,0,0,224087912345 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,UPC E Add ON 5 E
I 2 of 5		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BN,30,57,2,5,80,0,1,22408785 BN,30,200,2,5,80,0,0,22408785 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,I 2 of 5 E
Codabar		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BO,30,57,2,5,80,0,1,A22408785D BO,30,200,2,5,80,0,0,A22408785D AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,Codabar E
Code 93		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BP,30,57,2,5,80,0,1,22408785Godex BP,30,200,2,5,80,0,0,22408785Godex AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,Code93 E

Code 128 (auto subset A/B/C)		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BQ,30,57,2,5,80,0,1,22408785Godex BQ,30,200,2,5,80,0,0,22408785Godex AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,Code128 auto E
Code 128 (subset A/B/C)		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BQ2,30,57,2,5,80,0,1,A22408785GODEX BQ2,30,200,2,5,80,0,0,A22408785GODEX AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,Code128 subset A E
UCC 128		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BR,30,57,2,5,80,0,1,0022408785123456789 BR,30,210,2,5,80,0,0,002240878512345678 9 AB,400,25,1,1,0,0,Human Readable AB,400,180,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,UCC128 E
Post NET		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BS,30,100,2,5,80,0,1,22408 BS,30,230,2,5,80,0,0,22408 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,Post NET 5 E
ITF 14		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BT,30,57,2,5,80,0,1,012345011238 BT,30,200,2,5,80,0,0,01234011238 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,ITF14 E
EAN 128		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BU,30,57,2,5,80,0,2,0010084423744920094 1 BU,30,200,2,5,80,0,0,001008442374492009 41 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,EAN128 E

RPS 128		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BV,30,57,2,5,80,0,1,22408785224087851234545 BV,30,200,2,5,80,0,0,224087852240878512345 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,RPS128 E
China Postal Code		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BW,30,57,2,5,80,0,1,22408785 BW,30,200,2,5,80,0,0,22408785 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,China Postal Code E
HIBC		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BX,30,57,2,6,80,0,1,22-.$ /+%40 BX,30,200,2,6,80,0,0,22-.$ /+%40 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,HIBC E
Plessey		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BY,30,57,2,5,80,0,1,22408785 BY,30,200,2,5,80,0,0,22408785 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,Plessey MSI2 1 mod10 E
I 2 of 5 with Shipping Bearer Bars		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 BZ,30,57,2,5,80,0,1,2240878512345 BZ,30,200,2,5,80,0,0,2240878512345 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AC,36,300,1,1,0,0I,I 2 of 5 with Shipping Bearer Bars E

UCC/EAN-128 K-MART		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 B1,30,57,2,5,80,0,1,224087858901234567 B1,30,200,2,5,80,0,0,224087858901234567 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,UCC/EAN 128 K-MART E
UCC/EAN-128 RANDOM		
	^L Dy2-me-dd Th:m:s R8,13,631,790,8,8 B2,500,60,2,5,80,1,1,224087852240878567822408785224087 8 B2,250,60,2,5,80,1,0,224087852240878567822408785224087 8 AB,550,400,1,1,0,1,Human Readable AB,300,400,1,1,0,1,No Human Readable AD,36,720,1,1,0,0I,UCC/EAN 128 RANDAN E	
Telepen		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 B3,30,57,2,5,80,0,1,22408785 B3,30,200,2,5,80,0,0,22408785 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,Telepen E
FIM		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 B4,110,80,1,1,50,0,1,A B4,350,80,1,1,50,0,1,B AB,130,220,1,1,0,0,char A AB,370,220,1,1,0,0,char B AD,36,300,1,1,0,0I,FIM E

GS1 Databar		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 B55,30,57,2,5,80,0,1,1234567890000 B55,30,200,2,5,80,0,0,1234567890000 AB,400,25,1,1,0,0,Human Readable AB,400,170,1,1,0,0,No Human Readable AD,36,300,1,1,0,0I,GS1 Databar E
Maxicode		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 M200,50,1,1,2,840,068107317,666,0,12345 6 AD,36,300,1,1,0,0I,MaxiCode E
PDF417		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 PC50,100,3,10,3,3,3,19 &*01234567 012&* AD,36,300,1,1,0,0I,PDF 417 E
QR Code		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 W100,60,1,1,M,8,7,10,0 0123456789 W400,60,1,2,M,8,7,10,0 0123456789 AB,130,230,1,1,0,0,mode 1 AB,430,230,1,1,0,0,mode 2 AD,36,300,1,1,0,0I,QR Code E
Micro QR Code		^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 W100,80,1,3,M,0,7,10,0 0123456789 AD,36,300,1,1,0,0I,Micro QR Code E

DataMatrix (Square)	
	^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 XRB250,100,7,0,50 01234567890123456789012345678901234567890123456789 AD,36,300,1,1,0,0I,DataMatrix Code Square E
DataMatrix (Rectangular)	
	^L Dy2-me-dd Th:m:s R8,13,631,384,8,8 XRB180,100,7,0R,50 01234567890123456789012345678901234567890123456789 AD,36,300,1,1,0,0I,DataMatrix Code Rectangle E

II. Command Examples

How to construct a label using EZ-Series command:

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

Control command And 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 example is printing a label with EAN8. The 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 the printing with EZ-Series printers.

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 Label Dispenser 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
E	Label content of stop symbol

The label can be created by the following MS-DOS command:

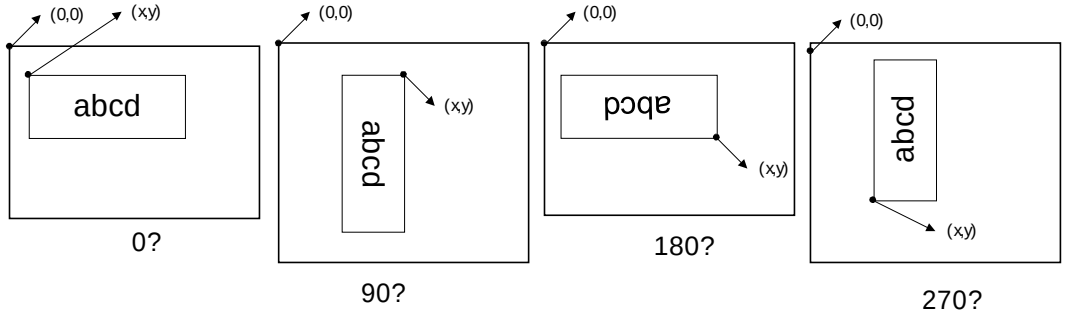
C:\>COPY EX1.TXT PRN↵

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 ^W50 ^S6 ^H10 ^R10 ~D8,27,00,8,39,36 ^L AC,10,10,1,1,1,0,PRINTER AC,10,50,1,1,1,0,^D AC,10,100,1,1,1,0,^T E	PRINTER AUG/27/00 08:39:36	^Q50,0,0 ^W50 ^S6 ^H10 ^L AC,100,30,1,1,1,0,ROTATION 0 AC,38,0,1,1,1,1,ROTATION 90 AC,260,150,1,1,1,2,ROTATION 180 AC,290,200,1,1,1,3,ROTATION 270 E	ROTATION 90 ROTATION 0 ROTATION 180 ROTATION 270

Adjusting the character spacing	Result	Asia Font	Result
^Q30,0,0 ^W50 ^S6 ^H10 ^L AC,10,10,1,1,10,0,PRINTER AC,10,100,1,1,1,0,PRINTER E	P R I N T E R PRINTER	^L AZ,100,12,1,1,0,4,中文 AZ,223,65,1,1,0,5, 中 文 AZ,60,100,1,1,0,6, 中 文 AZ,90,144,1,1,0,7,中文 E	中文 中文 中文

The data output is a default setting and user can change it with ~D command (refer to page46).
The time output format is a default setting and user can change it with T command.

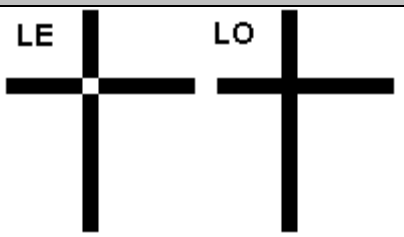
2. Barcode

Example	Result	Rotation of barcode	Result
^H10 ^S6 ^Q30,0,2 ^W60 ^L BB,20,100,3,3,100,0,1,1234567 E		^H10 ^S6 ^W25 ^Q30,0,2 ^L BE,100,20,2,4,80,1,1,123456789012 E	

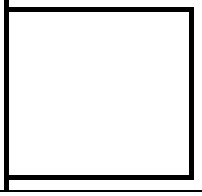
3. RTC Setting

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 ^W100 ^E32 ^H7 ^P1 ^S6 ^L Lo,212,45,311,53 Lo,244,11,252,128 Le,34,43,149,51 Le,72,8,80,121 E	; Darkness= 7 ; Speed = 6 inch/second ; Label height = 50mm, gap = 3 mm ; Label width = 100mm	

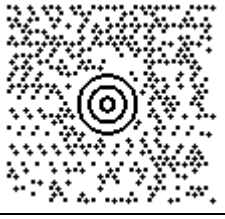
5. Rectangle printing

Example	Description	Result
^H10 ^S6 ^Q50,2 ^W70 ^L R20,20,120,120,8,8 E	; Darkness = 10 ; Speed = 6 inch/second ; Label height = 50mm, gap = 2 mm ; Label width= 70mm ; (x,y) = (20,20), (x1,y1) = (120,120) lrw = 8 dots, ubw = 8 dots	

6. PDF417

Example	Result
^Q50,0,3 ^W70 ^S6 ^H10 ^L P30,20,3,3,3,3,1,100 12345678 12345678 12345678 12345678 12345678 12345678 12345678 12345678 12345678 12345678 E	

7. Maxicode

Example	Result
^Q50,0,0 ^W70 ^S6 ^H10 ^L M30,20,1,1,2,840,068107317,8,0,123456 E	

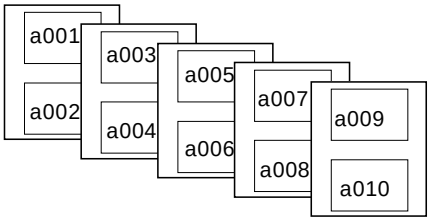
8. DataMatrix Code

Example	Result
^Q60,3 ^W80 ^H19 ^P1 ^S2 ^L XRB314,134,8,0,10 0123456789 XRB312,438,8,0R,10 0123456789 E	 

9. Label Dispenser setting

Example	Result
^Q50,2 ^W50 ^S6 ^O1 ^E8 ^P1 ^H10 ^L AD,20,20,1,1,3,0, Label Dispenser Function E	; Label height= 50mm, gap= 2mm ; Label width= 50mm ; Speed =6 inch/second ; Label Dispenser enable ; Set stop position to 8 mm ; Printing one label ; Darkness = 10 ; Label format begin sign ; Label format end and begin print

10. Cutter setting

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

11. Serial number

TEXT			
Example 1	**Result**	**Example 2**	**Result**
^Q10,0,0 ^W30 ^S6 ^H10 ^P10 ^L C0,0000,+2,A1 AB,10,10,1,1,2,0,^C0 E	0018 0016 0014 0012 0010 0008 0006 0004 0002 0000	~P10 If you want to continue printing 10 more serial numbers that is starting from 0018, enter the command "~P10". With this command you do not have to re-enter all the command in example.	0038 0036 0034 0032 0030 0028 0026 0024 0022 0020
Example 3	**Result**	**Example 4**	**Result**
^Q10,0,0 ^W30 ^S6 ^H10 ^P4 ^C2 ^L C0,0000,+2,A1 AB,10,10,1,1,2,0,^C0 E	0006 0006 0004 0004 0002 0002 0000 0000	^Q10,0,0 ^W30 ^S6 ^H10 ^P8 ^L C0,0000,+2,A1 AB,10,10,1,1,2,0,abc^C0def E	abc0014def abc0012def abc0010def abc0008def abc0006def abc0004def abc0002def abc0000def

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

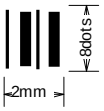
12. Graphic driver format

<table>
<tr><th>Example</th><th>Description</th></tr>
<tr><td rowspan="3">^Q20,2
^W50
^R20
~G
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
G(AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
E</td><td>

; Left margin = 20 dots

For this example, ASCII “(“character is 40 decimal (=40 bytes). Total 14 lines, so the graphics height is 1.75mm (14 dots)</td></tr>
<tr><td>Result</td></tr>
<tr><td></td></tr>
</table>

13. Pattern command setting

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

14. Rotate label format for printing

Example	Description	Result
^Q40,2 ^W50 ^S6 ^H10 ~R50 ^L AC,153,42,1,1,1,2,ROTATE BB,156,112,2,5,50,2,1,1234567 E	; Label size is 40 mm(h) x 50 mm(w); 2 mm gap ; Rotate the label format 180◦for printing	
^Q50,0,0 ~R200 ^L AC,20,10,1,1,1,0,ROTATE BB,20,45,2,5,50,0,1,1234567 E	; Disable the rotate function	

15. Download graphic to printer's memory

Following the below steps to download graphic to printer.

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

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

3. 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

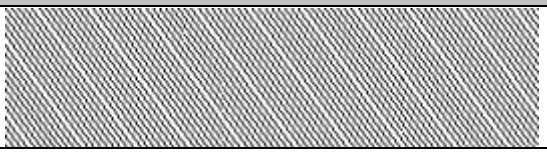
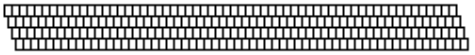
Example	Description
^Ftest ^Q50,0,15 ^W70 ^H10 ^S6 ^E12 ^L C0,0000,+1,serial no. V00,10,name V01,8,barcode V02,6,price AE,108,306,1,1,1,0,$^V02 AC,39,27,1,1,1,0,S/N.^C0 AD,126,78,1,1,1,0,^V00 BA,108,135,2,5,100,0,1,^V01 E	; Download label to memory card and the label name is “test”. ; Setting serial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

17. Recall label format from memory

Example 1	Description	Result
^Ktest 0000 Book 12345678 200.00 E ~P1	Recall label format without changing the label format C0 = 0000 V00 = book V01 = 12345678 V02 = 200.00	S/N.0000 book  * 12345678 * $200.00
Example 2	**Description**	**Result**
^Ktest 1111 Pencil 12345678 100.00 E ^Q35,0,0 ^S6 ^H10 ~P2	Recall label format and change label format C0 = 1111 V00 = pencil V01 = 12345678 V02 = 100.00 Changing the size Changing speed to 6”/sec Changing darkness to 10 Printing the last label twice	S/N.1111 Pencil  * 12345678 * $100.00 S/N.1112 Pencil  * 12345678 * $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	EZXXXX : VX.XXX Serial port :96,N,8,1  1 DRAM installed Image buffer size : 1475K 000 FORM(S) IN MEMORY 000 GRAPHIC (S) IN MEMORY 000 FONT(S) IN MEMORY 000 ASIAN FONT(S) IN MEMORY 150K BYTES FREE MEMORY ^S6 ^H8 ^R000 ~R200 ^W100 ^Q100,3 Option : ^D0 ^O0 ^AD Gap Sensor AD : 129 162 195 (3)

19. Use variable settings

	Example	Result
1. User input unit price and amount. Printer calculates total price.	~MDELF,test1 ^Ftest1 ^Q60,0,0 ^P1 ^L V00,10,Price V01,10,Amount V02,10,Total Price V#OP*,V02,V00,V01 V#SET,UNPROMPT,V02 AC,30,110,1,1,0,0,Price: ^V00 AC,30,189,1,1,0,0,Amount: ^V01 AE,30,273,1,1,0,0,Total Price: ^V02 E ^Ktest1 100 3 E ~P1	Price: 100 Amount: 3 Total Price: 300
2. Calculation sample	~MDELF,test2 ^Ftest2 ^Q60,0,0 ^L V00,10,Input V00 V01,10,Input V01 V02,10,Input V02 V03,20,Input V03 V04,20,Input V05,20,Input V06,20,Input V#OP+,V02,V01,V00 V#OP-,V03,V01,V00 V#OP*,V04,V01,V00 V#OP/,V05,V01,V00 V#OP%,V06,V01,V00 V#SET,UNPROMPT,V02 V#SET,UNPROMPT,V03 V#SET,UNPROMPT,V04 V#SET,UNPROMPT,V05 V#SET,UNPROMPT,V06 AA,38,37,1,1,0,0,V00=^V00 AA,38,77,1,1,0,0,V01=^V01 AE,38,115,1,1,0,0,V1+V0=^V02 AE,38,165,1,1,0,0,V1-V0=^V03 AE,38,215,1,1,0,0,V1*V0=^V04 AE,38,265,1,1,0,0,V1/V0=^V05 AE,38,315,1,1,0,0,V1 MOD V0=^V06 E ^Ktest2 10 20 E ~P1	V00=10 V01=20 V1+V0=30 V1-V0=10 V1*V0=200 V1/V0=2 V1 MOD V0 = 0

20. dBase III 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 ^P1 ^L FILEDB,OPEN,customer V00,10,Prompt0 V#LINKDB,PHONE,V00 FILEDB,FIND,NAME,Mary AC,79,120,1,1,0,0, Mary's phone: ^V00 E	Print out Mary's phone number	Mary's phone: 22222222
^Q60,0,0 ^P1 ^L FILEDB,OPEN,customer V00,10,Prompt0 V#LINKDB,ADDRESS,V00 FILEDB,FIND,NAME,John AC,79,120,1,1,0,0, ^V00 E	Print out John Address	Address of John
^Q60,0,0 ^P1 ^L FILEDB,OPEN,customer V00,10,Prompt V#LINKDB,NAME,V00 FILEDB,MOVE,LAST AC,79,120,1,1,0,0,Last Name is ^V00 E	Print out last person name	Last Name is Gilbert
^Q60,0,0 ^P1 ^L FILEDB,OPEN,customer V00,10,Prompt V#LINKDB,NAME,V00 FILEDB,MOVE,2 AC,79,120,1,1,0,0,Second Name is ^V00 E	Print second person name	Second Name is Mary

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

About 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	
Subset 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: 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

Revision	Sections changed from previous release			Doc. date	Prepared
A	First Edition			2010/11/23	Chard Hu
B	Add “*” to CODE 39			2011/08/15	Chard Hu
Revision	Sections changed from previous release			Doc. date	Prepared
C	**ADD**	**CANCEL**	**MODIFICATION**	2012/10/19	Betty Tsou
	^Z	^Bx	^An		
	^XSET,ACTIVEMESSAGE,n	^Mx	^D+dddd.hh		
	^XSET,ALIAS,string	^XSET,CF_FORMAT,1	^Dx		
	^XSET,ERRORPRINT,n	^XSET,LANGUAGE,n	^Fname		
	^XSET,FEEDCUT,n	^XSET,LOCKCMD,xxxx	^Gn		
	^XSET,HEATOFFSET,n	^XSET,MEMORY,n	^L		
	^XSET,ROTATION,n	^XSET,PASSWORD,n,x	^On		
	^XSET,UNPROMPT,p1	^XSET,UNICODE,n	^PI		
	~MCPY	^XSET,USBETHERNET,n	^Qx,y(,z		
	~MDEL*	~G	^Sx		
	~MMOV	Xx,y,narrow,data	^XGET,CONFIG		
	~S,STATUS	XRx,y,narrow,rotate,data	^XSET,ACTIVERESPONSE,n		
	~X6		^XSET,CODEPAGE,n		
	~X9		^XSET,ERRORPRINT,n		
	PMx,y,w,h,r,c,ec,max_len,rotation		^XSET,HEATOFFSET,n		
	V#ADDCHECKSUM43,x		^XSET,KEYBOARD,n		
	V#SET,FLOATFORMAT,X,Y,Vnn		^XSET,ROTATION,n		
	V#SET,PROMPTONCE,p1		^XSET,TOPOFFORM,n		
	V#SET,THOUFORMAT,V00ab[c]		^XSET,UNPROMPT,p1		
	Zx,y,a,b,c,d,e,n		^Yb,p,d,s		
	^NA,function[,p1]		~S,CHECK		
	^NL[,TrapIP,Community]		~S,n		
	^NL,ENABLE,n		~S,STATUS		
	^NR[,p[,ei[,sw]]]		~T		
	^NMACADDR[,addr]		~V		
	^NS[a,b,c,d,e,f,g,h,i]		~Xn		
	Firmware reversion difference between V1.xxx and G3.xxx		At,x,y,x_mul,y_mul,gap,rotationInverse,data		

Revision	Sections changed from previous release			Doc. date	Prepared
	ADD	**CANCEL**	**MODIFICATION**		
D	^XSET,AUTOTPHTEST,x			2013/08/08	Betty Tsou
	^XSET,FEEDTYPE,n				
	^XSET,PAGEDELAY,n				
	^XSET,REALLENGHTPRINT,n				
	^XSET,RECALLCRLF,n				
	^XSET,SENSING,n				
	^XSET,SPEEDDOWN,n				
	^XSET,TOPOFFORM,n				
	^XSET,WHENTOSENSING,n				
	~S,OFFSETa,n				
	~S, ES[p1]				
	~PCB,MODELNAME[n],name				
	V#SETZERO,Vxx				

Revision	Sections changed from previous release			Doc. date	Prepared
	ADD	**CANCEL**	**MODIFICATION**		
E	^XSET,LOCKCMD,xxxx	^XSET,HEATOFFSET,n		2013/08/19	Betty Tsou
		^XSET,PAGEDELAY,n			
		^XSET,SPEEDDOWN,n			
		Firmware reversion difference between V1.xxx and G3.xxx			