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Z-MODE Supported Command List

●: Conditionally supported

◎: Fully supported

○: Partly supported

×: Not supported. When the command is received, the printer ignores it, not causes an error.

※: Supported by the interpreter (High speed conversion)

Category of function	Zebra command	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
1	^A	Scalable/Bitmapmed Font	○	Designates a font Font size adjustment (Default)	Font size and font are not identical, but they can be adjusted by using the Z-MODE setting tool. When an outline font is specified, if any other print data exists in the same print area, the printout becomes faulty. (due to the restriction of TPCL drawing.)
1	^A@	Use Font Name to Call Font	○	Designates a font name. Same as above.	Font size and font are not identical, but they can be adjusted by using the Z-MODE setting tool. When an outline font is specified, if any other print data exists in the same print area, the printout becomes faulty. (due to the restriction of TPCL drawing.) Referable font names are those specified for 0 - 9 and A - Z in the Font Conversion Table.
2	^B0	Aztec Bar Code	×	Aztec Bar Code	
2	^B1	Code 11	×	Code 11 Bar Code	
2	^B2	Interleaved 2 of 5	◎	Interleaved 2 of 5 Bar Code	
2	^B3	Code 39	◎	Code39 Bar Code	When no data is specified (^FD^FS), the printer does not print a bar code. (Zebra printer prints "***".) Data up to 123 digits can be printed, but data exceeding 123 digits is not printed. (Zebra printer discards 102nd digits or later.)
2	^B4	Code 49	×	Code49 Bar Code	
2	^B5	Planet Code	×	Planet Code Bar Code	

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
2	^B7	PDF417	◎	PDF417 Bar Code	<p>If the parameters of the number of columns and the number of rows are both omitted, the printer will print data based on the aspect ratio. However, the print result does not match since the calculation method (table?) for the number of columns is different from Zebra's.</p> <p>When the above parameters are both set but the values are too big, the Zebra printer does not print a code. However, TEC printer prints a code by expanding the row, as a result, the print result does not match.</p> <p>When the orientation is set to 180 degrees or 270 degrees, the coordinate of origin is shifted. TEC TPCL firmware places the coordinate of origin at a logical position.</p> <p>We consider the specification of TEC to be correct, and do not modify the specification according to Zebra's.</p> <p>When large size data (e.g. 1850 alphabets/binary 1469 bytes) is sent, TEC printer cannot print some data but the Zebra printer can.</p>
2	^B8	EAN-8	◎	EAN-8 Bar Code	<p>Max. acceptable parameter value is different.</p> <p>When "Print interpretation line above code" is designated, Zebra printer prints a bar code with the interpretation line being centered above the code (within the bar code width), while the B-SX prints the start and stop codes outside the guide bars.</p>
2	^B9	UPC-E	◎	UPC-E Bar Code	<p>Max. bar code height is different.</p> <p>When "Print interpretation line above code" is designated, Zebra printer prints a bar code with the interpretation line being centered above the code (within the bar code width), while the B-SX prints the start and stop codes outside the guide bars.</p>
2	^BA	Code 93	◎	Code93 Bar Code	<p>A code smaller than 0x20 (SP), such as "&A"SOH, or a code unlisted in the Full ASCII table of ZPL, such as "(K", is unconverted and passed to the TPCL as it is.</p> <p>&A --> decoded to '&' and 'A'. (K --> decoded to '(' and 'K'.</p>
2	^BB	CODABLOCK	×	CODABLOCK Bar Code	
2	^BC	Code 128	◎	Code 128 Bar Code	<p>Max. bar code height is different.</p> <p>When the INC/DEC feature is specified, the font type for the interpretation line (data under bar code) cannot be specified. (Font types for the interpretation line under and above bar code are fixed to Font A and Font E, respectively.)</p>

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
2	^BD	UPC Maxi Code	○	UPC Maxi Code Bar Code	In the case of Mode2: The B-SX does not print a bar code if data less than 15 digits is specified.
2	^BE	EAN-13	◎	EAN-13 Bar Code	Max. bar code height is different. When "Print interpretation line above code" is designated, Zebra printer prints a bar code with the interpretation line being centered above the code (within the bar code width), while the B-SX prints the start and stop codes outside the guide bars.
2	^BF	Micro PDF417	◎	MicroPDF417 Bar Code	The height of one module is max. 10 mm.
2	^BI	Industrial 2 of 5	◎	Industrial 2 of 5 Bar Code	
2	^BJ	Standard 2 of 5	×	Standard 2 of 5 Bar Code	
2	^BK	ANSI Codabar	◎	ANSI Codabar Bar Code	
2	^BL	LOGMARS	×	LOGMARS Bar Code	
2	^BM	MSI	◎	MSI Bar Code	
2	^B0	Aztec Bar Code	×	Aztec Bar Code	
2	^BP	Plesey	×	Plesey Bar Code	
2	^BQ	QR Code	◎	QR Code Bar Code	
2	^BR	RSS	○	RSS Bar Code	Only the following RSS families are supported. 1 = RSS14 2 = RSS14 Truncated 3 = RSS14 Stacked 4 = RSS14 Stacked Omnidirectional 5 = RSS Limited 6 = RSS Expanded
2	^BS	UPC/EAN Extensions	◎	UPC/EAN Extensions	
2	^BT	TLC39	×	TLC39 Bar Code	

Category of function	Zebra command	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
2	^BU	UPC-A	◎	UPC-A Bar Code	Max. bar code height is different. When "Print interpretation line above code" is designated, Zebra printer prints a bar code with the interpretation line being centered above the code (within the bar code width), while the B-SX prints the start and stop codes outside the guide bars.
2	^BV	BC412	×	BC412 Bar Code	
2	^BX	Data Matrix	○	Data Matrix Bar Code	The printer pattern differs, but a scanning result becomes the same. Control characters of "~" and "^", and any codes that cannot be entered by the keys are not supported.
2	^BY	Bar Code Field Default Instruction	◎	Bar Code Field Default	
2	^BZ	POSTNET	○	POSTNET Bar Code	Zebra printer also prints 6-digit, 8-digit, and 12-digit data, while the TPCL only prints 5-digit, 9-digit, and 11-digit data. (Note on the number of digits is described in the External Equipment Interface Specification.) POSTNET bar code is supposed to be 5-digit, 9-digit, or 11-digit data due to its purpose of use, the printer does not print a bar code of any data other than 5-digit, 9-digit, or 11-digit data.
4	^CC, ^CC	Change Caret	◎	Changes the caret character.	Supported character codes are different from the Zebra's.
4	^CD, ^CD	Change Delimiter	◎	Changes the delimiter character.	Supported character codes are different from the Zebra's.
1	^CF	Change Alphanumeric Default Font	◎	Change Alphanumeric Default Font	In the case of outline font, when the character height or width exceeds 85mm, it will be rounded to 85mm. (The ZPL enables setting the value up to the media length, but the value is rounded to 1500 dots.)
1	^CI	Change International Font	○	Changes the character set.	Only CP850(CI0-13), CP1252(CI27), and UNICODE(CI28) are supported.
4	^CM	Change Memory Letter Designation	×	Changes the letter specifying the drive.	

Category of function	Zebra command	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
4	^C0	Cache On	○	Changes the size of the character cache.	The command is ignored, but the cache is used for TTF drawing.
4	^CT, ^CT	Change Tilde	◎	Changes the tilde character.	Supported character codes are different from the Zebra's.
2	^CV	Code Validation	×	Checks bar code data and prints the results.	
1	^CW	Font Identifier	○	Assigns a font identifier to additional font.	Font name is recognized by the name consisting of the drive name, file name, and file extension. Only the font names listed in the Font Change Table in the default setting file can be referenced. If it does not match to that in the default setting file, this command is ignored. By using the Z-MODE Setting Tool, the information of the font used in a ^CW command is required to be added.
1	~DB	Download Bitmap Font	×	Downloads bit map fonts.	
3	^DD	Download Direct Bitmap	×	Draws a bitmap.	ZM400 does not work.
1	~DE	Download Encoding	×	Downloads the conversion table for Unicode.	
5	^DF	Download Format	○	Saves formats.	Drive assignment is different from Zebra. R: RAM E: FROM B: ATA card A: ATA card The characters that can be saved by any of the DF to XZ commands is max. 512k byte.

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
5	~DG	Download Graphic	○	Saves graphic data.	Drive assignment is different from Zebra. R: RAM E: FROM B: ATA card A: ATA card
5	~DN	Abort Download Graphic	×	Aborts the graphic mode	
1	~DS	Download	×	Downloads a Scalable font.	
1	~DT	Download TrueType® Font	●	Downloads a TrueType font.	It is possible to support this function by saving TTF font in an ATA card under the name which meets the TPCL specification. Addition of the font information by using the Z-MODE Setting Tool is required.
1	~DU	Download Unbounded (TrueType® Font)	○	Downloads 2-byte font	It is possible to support this function by saving TTF font in an ATA card under the name which meets the TPCL specification. Addition of the font information by using the Z-MODE Setting Tool is required. A part of the TrueType fonts can be downloaded (Max. 7 types) They are not adjustable by using the Z-MODE Setting Tool. Refer to the Z-MODE Specification.
5	~DY	Download Objects	○	Downloading fonts or graphics.	Drive assignment is different from Zebra. R: RAM E: FROM B: ATA card A: ATA card AR-compressed is not supported. Only the PNG files generated by Zebra printer in Base64 format are supported. Only the following objects can be downloaded. BMP, GRF, PNG, and TTF
99	^EB	New/Unknown	×		No description in the manual. This seems to be an RFID-related command, but there is no change in the Zebra printer behavior.
5	^EF, ~EF	Initialize/Erase Stored Formats	◎	Erases stored format	All formats saved in the RAM and FROM are erased. Only the used areas of the FROM are erased in units of block.

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
5	^EG, ~EG	Erase Download Graphics	◎	Erases saved graphic	Independent of the parameters, the saved graphic data are erased from the all drives. (No designation of file extension)
6	^FA	Field Allocate	◎	Details unknown.	Only the specified number of digits is printed. The maximum number of data digits is 255 characters due to the limitation of the TPCL.
6	^FB	Field Block	○	Prints the text into a defined block type format.	Combination of ^FP (Field parameter) and ^TB (Text block) may cause improper printer action. If a width exceeding the max. width is specified, data will be wrapped around. Also, this is affected by the wrap around.
6	^FC	Field Clock (for Real Time Clock)	×	Prints the date and time.	The B-SX has no RTC function.
6	^FD	Field Data	◎	Defines the data string for the field.	Max. number of data digits is 252 digits.
99	^FE	New/Unknown	×		No description in the manual. Zebra printer does not change the behavior regardless of presence or lack of the command.
6	^FH	Field HEX	◎	Specifies a HEX mode data.	The code applicable to the HEX indicator differs from Zebra's. One byte hex. code before a ^FS, like "_F" is also converted. (Zebra does not convert it.)
99	^FI	New/Unknown	○		No description in the manual. Zebra printer does not print the data that comes immediately after "FI".
1	^FL	Font Linking	×	Links multiple fonts.	
6	^FM	Multiple Field Origin Locations	×	Specifies the coordinates of multiple PDF417 or MicroPDF to be printed.	

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
6	^FN	Field Number Instruction	◎	Designates a field number.	Although the field number ranges from 0 to 9999, only 200 items can be registered at the maximum. Max. number of characters per field is 253 bytes.
6	^FO	Field Origin	◎	Designates the coordinate of a field.	In the case of Zebra printer, the position or size of each data differs depending on whether ^MU or ^JM command comes before ^FO, ^FT, LH, LS, LT, LL, or PW command or after. In the case of TEC printer, the position or size differs label by label. Since the printer behavior when "auto" is selected for justification is unknown, specifying "auto" will cause left alignment. After a ^FS command is received, both X and Y coordinates turn to 0.
6	^FP	Field Parameter	◎	Character string rotation	Combination of ^FP command and ^FB command may cause improper operation. Max. inter-character gap is 99 dots. (For TTF, 512 dots)
6	^FR	Field Reverse Print	◎	Reverses the color of the field.	When diagonal lines, circles, or rounded rectangles are reverse printed, the overlapping portions are filled out in black. When a rounded rectangle is reverse printed, the overlapping portions of each side and a rounded corner are filled out.
6	^FS	Field Separator	◎	Denotes the end of the field definition.	
6	^FT	Field Typeset	◎	Designating the coordinate of a field.	In the case of Zebra printer, the position or size of each data differs depending on whether ^MU or ^JM command comes before ^FO, ^FT, LH, LS, LT, LL, or PW command or after. In the case of TEC printer, the position or size differs label by label. When "0" (less than character height) is set for the Y coordinate, the lower left corner will become the reference point, which looks like data is protruding out of the base line, so the printer does not print. (Zebra printer prints by shifting characters one by one.) When X coordinate or Y coordinate is omitted, the printer behavior differs between TEC and Zebra. Since the printer behavior when "auto" is selected for justification is unknown, specifying "auto" will cause left alignment. After a ^FS command is received, both X and Y coordinates turn to 0.
6	^FV	Field Variable Data	○	Field variable data	Print results are not guaranteed if the media length differs between the 1st and the 2nd labels and when ^MCY is specified. The max. number of characters per field is 253.

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
6	^FW	Field Orientation	◎	Field rotation	Since the printer behavior when "auto" is selected for justification is unknown, specifying "auto" will cause left alignment.
6	^FX	Comment	◎	Adds "non printing" information comments or statements.	
3	^GB	Graphic Box	◎	Draws a rectangle.	Print result of rounded corner rectangles of which lines are thick does not look like the same as Zebra's.
3	^GC	Graphic Circle	◎	Draws a circle.	When a value is larger than 300.0mm, it will be rounded down to 300.0mm. If a value after converted into dots is not divisible by 2, +1 is added to the value. When the X-coordinate is specified out of the range of the print head width, data is wrapped around. (Zebra printer does not print the excess part.) Zebra printer prints a line with the width of 2 if the line width is set to a value less than 2 or omitted. In such case, the B-SX prints a line with the width of 1.
3	^GD	Graphic Daigonal Line	◎	Draws a diagonal line.	The way a diagonal line becomes thicker differs from the Zebra's, depending on the angle of the line.
3	^GE	Graphic Ellipse	◎	Draws an ellipse.	When the width or height is larger than 300.0mm, it will be rounded down to 300.0mm. If a value after converted into dots is not divisible by 2, +1 is added to the value. Zebra printer prints a line with the width of 2 if the line width is set to a value less than 2 or omitted. In such case, the B-SX prints a line with the width of 1. If the width (or height) is set to 3 or less or omitted, Zebra printer ignores this value and prints a dot. In such case, the B-SX prints an ellipse with the width (or height) of 1 and the height (or width) of the specified value.
3	^GF	Graphic Field	○	Draws graphics.	The compression type C (compressed binary) is not supported. Even if the CRC of B64/Z64 format is improper, the printer reads data and continues to print. (Zebra printer does not print or an error results.) Even if a ^FS command does not come after the data of ^GF command, the command will be effective and the printer prints a graphic. (Zebra printer does not print.) The upper limit of the value for parameter "d" is 1249 (9999÷8) due to the restriction of the TPCL. If a value exceeding 1249 is set, no graphic will be printed.

Category of function	Zebra command	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
3	^GS	Graphic Symbol	◎	Prints registered graphical symbols, such as ® and ©.	Since these symbols are registered as bitmap fonts, the magnification ratio from 0.5 to 9.5, in units of 0.5 is supported.
8	~HB	Battery Status	(○)	Sends a battery condition. (For the mobile printers)	Fixed values are sent by using the BASIC application. "00.00,00.00,00"
8	~HD	Head Temperature Information	×	Sends the printer information to the host.	
8	^HF	Host Format	×	Uploads the saved formats to the host.	
8	^HG	Host Graphic	○	Uploads saved graphic data to the host.	R: Upload from the RAM. E: Upload from the FROM. B: Upload from the ATA. A: Upload from the ATA. This instruction is notified to the all interfaces of USB, RS-232C, and TCP. In the case Centronics interface is used, no response is returned.
8	^HH	Configuration Label Return	×	Sends the setup information of the printer to the host.	
8	~HI	Host Identification	○	Sends the printer information.	Version information and cutter information are created based on the printer's internal data. "B-SX5-300dpi,C5.31,12,8192KB,CUTTER DETECTED" "B-SX5-300dpi,C5.31,12,8192KB" "B-SX4-200dpi,C5.31,8,8192KB,CUTTER DETECTED" "B-SX4-200dpi,C5.31,8,8192KB" In the case Centronics interface is used, no response is returned. It is also possible to send the values saved in the default setting file to the host.
10	^HL,~HL	Return RFID Data Log to Host	×	Uploads the log of the RFID Read/Write/Lock information.	
8	~HM	Host Memory Status	○	Returns the printer memory size .	Only the free space of the RAM is supported. When the size is 8193 or greater, it will be rounded off to 8192. "8192,8192,8192" In the case Centronics interface is used, no response is returned. It is also possible to send the values saved in the default setting file to the host.

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
8	~HQ	Host Query	○	Sends the counter values, such as the running distance, and the print head maintenance data.	Parameters of MA, MI, OD, PH,ES, HA,JT,PP,SN and UI are supported. In the case Centronics interface is used, no response is returned. It is also possible to send the values saved in the default setting file to the host.
10	^HR	Calibrate RFID Transponder Position	●	Determines the position of an RFID tag against the R/W and sends the result to the host.	
8	~HS	Host Status Return	○	Returns a print status	The label length may not match the value specified by ^LL due to dot/mm conversion error. A part of the fixed value is sent. It is also possible to send the values saved in the default setting file to the host.
8	^HT	Host Linked Fonts List	×	Returns the setting value for the ^FL.	
8	~HU	Return ZebraNet Alert Configuration	○	Returns the ZebraNet Alert Configuration	The following fixed values are returned. "B,C,Y,Y,ADMIN@COMPANY.COM,0" "J,F,Y,Y,,0" "C,F,Y,Y,,0" "H,C,Y,N,ADMIN@COMPANY.COM,0" "N,C,Y,Y,ADMIN@COMPANY.COM,0" Though this is a real-time command, it will not be processed until a next command (caret or tilda) is received. In the case of the Centronics interface, no response is returned.
8	^HV	Host Verification	○	Sends the value set for the ^RT, ^RF, and ^FN commands to the host.	This command becomes effective only after the data of ^FN is fixed. If this command is sent before that, it will be invalid. (In the case of Zebra, the result of this command is sent after the data of ^FN command is fixed.) The max. length of obtained data is 252 characters. The data is returned to the interface that received the ^HV command. However, when the ^HV command was sent via the Centronics, the data will be sent to the RS-232C.

Category of function	Zebra command	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
8	^HW	Host Directory List	○	Returns a list of the saved objects.	A wildcard character (*) cannot be used in a file name. Wildcard character (?) is not supported. Free space is just a guide. In the case Centronics interface is used, no response is returned. In the case Z: driver is selected, the fixed value is returned.
8	^HY	Upload Graphics	○	Uploads saved graphics to the host.	Drive assignment is different from Zebra. R: Upload from the RAM. E: Upload from the FROM. B: Upload from the ATA. A: Upload from the ATA. This instruction is notified to the all interfaces of USB, RS-232C, and TCP. In the case Centronics interface is used, no response is returned.
8	^HZa	Display All Description Information	×	Returns the all printer information. (XML format)	
8	^HZf	Format Parameter	×	Returns the format information (XML format)	
8	^HZl	Object Directory Listing	×	Returns the directory information of the object (XML format).	
8	^HZo	Individual Object Data Information	×	Returns the information of each object. (XML format)	
8	^HZr	Status Information	×	Returns the printer status information (XML format).	
5	^ID	Object Delete	○	Deletes objects, graphics, fonts, and stored formats from storage areas.	Drive assignment is different from Zebra. R: RAM E: FROM B: ATA card A: ATA card A wildcard character (*) cannot be used in a file name. For details of the use of the wild card (*/?), refer to the Z-MODE Specification. When deleting the fonts, the TTF area in the FROM will be deleted regardless of the selection of the drive.
5	^IL	Image Load	○	Loads label image (graphic). (Overlay function)	Drive assignment is different from Zebra. R: RAM E: FROM B: ATA card A: ATA card In the case extension = PNG, data is processed as PNG file format only if the PNG file was generated by Zebra printer. (Other PNG files may not be processed correctly.)

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
5	^IM	Image Move	○	Loads a graphic data.	Drive assignment is different from Zebra. R: RAM E: FROM B: ATA card A: ATA card In the case extension = PNG, data is processed as PNG file format only if the PNG file was generated by Zebra printer. (Other PNG files may not be processed correctly.)
5	^IS	Image Save	○	Saves a drawn image.	Drive assignment is different from Zebra. R: RAM E: FROM B: FROM A: FROM In the case extension = PNG, data is saved in binary format. PNG file format is not acceptable. (Zebra saves data in PNG format.) The address where data save is started is dependent on the BASIC system mode and GRAPHIC POSITION. (In the case of speed-oriented designation, the print position misaligns by 8 dots at the maximum.) When precise print position is required, choose "PRECISE POSITION", and when high speed printing is required, choose "SPEED-ORIENTED". In the case the RAM is used for saving image data, the max. capacity is approx. 4.5MB (B·SX4) or 12MB (B·SX5). In the case of an image with 600-dot height and the print head width, the max. number of images is approx. 80 (B·SX4) or 130 (B·SX5). This value changes depending on the storage size of other data. If data size exceeds the max. capacity, a message "RAM MEMORY FULL !" will be displayed on the LCD and such data will not be saved.
4	~JA	Cancel All	×	Cancels the all format commands in the buffer sent before JA command.	
5	^JB	Initialize Flash Memory	○	Initializes the flash memory.	Drive assignment is different from Zebra. A=Option Flash memory B=ATA card E=initial Flash memory
5	~JB	Reset Optional Memory	○	Initialization of a battery type memory card.	Drive assignment is different from Zebra. B=ATA card

Category of function	Zebra command	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
7	~JC	Set Media Sensor Calibration	○	Adjustment of the label length and the sensor	<p>A calibration is performed. The label length set is temporarily saved. (The amount of a paper feed by the [FEED] key is changed.) Turning OFF and back to ON restores the feed amount to the previous value. When "NONE" is set for the sensor in the Z-MODE setting tool, the printer does nothing. The printer performs a calibration, but if it does not normally finish before the printer feeds the max. label length, a paper jam occurs.</p> <p>Priority: B-SX system mode setting > Zebra system mode > Issue or Feed command</p> <p>An issue command cannot change the sensor type and ribbon type obtained by performing a calibration in the Z-MODE. The printer performs a calibration based on the currently set sensor value. The max. acceptable label length for calibration is supposed to be 990mm. When the automatic calibration is enabled on the B-SX, the calibration in the Z-MODE is not activated. To activate the calibration in the Z-MODE, the automatic calibration on the B-SX must be disabled.</p>
9	~JD	Enable Communications Diagnostics	×	Starts dump of the receive data.	
9	^JE	Disable Diagnostics	×	Stops dump of the receive data.	
9	~JE	Disable Diagnostics	×	Starts dump of the receive data	
7	~JF	Set Battery Condition	(×)	Changes the operation mode under low battery condition. (For the mobile printers)	
9	~JG	Graphing Sensor	×	Prints a graph of the sensor value.	
9	^JH	Early Warning Settings	×	Specifies the warning message indication (Label, ribbon, print head)	
9	^JI, ~JI	Start ZBI (Zebra BASIC Interpreter)	×	No description in the manual.	
7	^JJ	Set Auxiliary Port	×	Specifies the printer action when a verification device or an applicator is connected.	
7	~JK	Delayed Cut	○	Delayed Cut	<p>Paper cut However, a cut operation is available only when "D (Delay cut)" is selected for the "PRINT MODE(^MM). And the paper can be cut only while or after the last page of one print job is printed. If a command is sent before the last page of one print job is printed, the command will be ignored.</p>

Category of function	Zebra command	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
7	~JL	Set Label Length	○	Automatic setting of a label size	<p>The printer feeds labels. ([ESC]T command of TPCL is sent.) No sensor adjustment is performed.</p> <p>The label length set is temporarily saved. (The amount of a paper feed by the [FEED] key is changed.)</p> <p>Turning OFF and back to ON restores the feed amount to the previous value.</p> <p>When "NONE" is set for the sensor in the Z-MODE setting tool, the printer does nothing.</p> <p>When the label length set is larger than the max. label length, the printer also feeds labels (and stops at a gap or black mark.) (Zebra printer results in an error.)</p> <p>If the sensor type specified in the Z-MODE setting tool is not suitable for the actually loaded paper, a paper jam occurs.</p>
6	^JM	Set Dots/Millimeter	○	<p>Sets dots/mm.</p> <p>Other parameters than A and B need to be supported.</p> <p>24,12,8,6,4,3</p>	<p>When dots/mm is set to B by this command, the printer prints data as twice as large as the actual size. (When data is enlarged by a MU command, the data is further doubled.)</p> <p>In the case of Zebra printer, the position or size of each data differs depending on whether ^MU or ^JM command comes before ^FO, ^FT, LH, LS, LT, LL, or PW command or after. In the case of TEC printer, the position or size differs label by label.</p> <p>TEC printer prints an image ignoring the specified field width (Zebra printer prints an image as far as it falls within the field, and does not print the excess parts.). When an image is enlarged, TEC printer does not print the excess parts.</p>
7	~JN	Head Test Fatal	◎	Stops printing when a broken element is detected.	When the printer receives this command, it notifies a Head Broken Dots Check Command of TPCL ({HD01 }) at the print head test interval specified by JT.
7	~JO	Head Test Non-Fatal	◎	Continues printing when a broken element is detected.	When the printer receives this command, it does not notify a Head Broken Dots Check Command of TPCL ({HD01 }) at all. (This feature is activated as default.)
7	~JP	Pause and Cancel Format	×	Places the printer into Pause mode and clears the format currently being processed.	
9	~JQ	Terminate Xebra BASIC Interpreter	×		
7	~JR	Power On Reset	◎	Power-on reset	

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
7	^JS	Sensor Select	◎	Designates a sensor.	A= Paper feed with the sensor specified by ^MN command. R= Paper feed with the reflective sensor T= Paper feed with the transmissive sensor In the case of ^MNN, ^JS will be ignored. (No paper feed) The paper feed type differs depending on the parameter setting for LABEL TYPE in the Z-mode.
7	~JS	Change Backfeed	×	Specifies the action of back feed.	
9	^JT	Head Test Interval	○	Specifies the interval (or print count) of the print head broken	Only the first parameter of Test Interval is supported. When only one replicate is designated for Pq command, a print head test is performed at the specified interval. However, when 2 or more replicates is designated, a print head test is performed only one time before printing.
9	^JU	Configuration Update	○	Saves current settings, reloads the default values, or recalls last saved values.	F = The system mode is initialized to the default values and reset by a power on. N = Not supported. R = Restores to the settings saved in the system mode. S = Overwrites the system mode settings by the current settings. (Save)
9	^JV	Configuration Update	×		
7	^JW	Set Ribbon Tension	●	Sets the ribbon tension.	Done by the TEC system mode menu.
7	~JX	Cancel Current Partially Input Format	×	Cancels a format that is currently being sent to the printer.	
7	^JZ	Reprint After Error	○	Specifies whether to reprint the label printed while an error occurred after a recovery from the error.	Toshiba TEC printer feeds the labels when it recovered from an error.
7	~KB	Kill Battery (Battery Discharge Mode)	(×)	Battery discharge (For the mobile printers)	
11	^KC	Set Cilent Identifier(Optional 61)	×		
6	^KD	Date/Time Format (for Real Time Clock)	×	Specifies the format of the date and time (RTC). Displays the time on the LCD.	The B-SX has no RTC function.

Category of function	Zebra command	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
9	^KL	Define Language	○	Designates a language displayed on the LCD.	1: English 2: Spanish 3: French 4: German 5: Italian 10: Spanish 2 11: Dutch Default: 1 Note) The changed setting is applied after a restart of the printer.
9	^KN	Define Printer Name	×	Sets a printer name (printed on the configuration label, etc.)	
9	^KP	Define Password	×	Sets a password for the control panel.	
9	^LF	List Font Links	×	Prints a list of the link of fonts.	
6	^LH	Label Home	◎	Sets the coordinate of origin on a label.	In the case of Zebra printer, the position or size of each data differs depending on whether ^MU or ^JM command comes before ^FO, ^FT, LH, LS, LT, LL, or PW command or after. In the case of TEC printer, the position or size differs label by label.
6	^LL	Label Length	◎	Specifies the label length.	In the case of Zebra printer, the position or size of each data differs depending on whether ^MU or ^JM command comes before ^FO, ^FT, LH, LS, LT, LL, or PW command or after. In the case of TEC printer, the position or size differs label by label. The printable area becomes 2mm shorter than the size specified by the ^LL command.
6	^LR	Label Reverse Print	◎	Reverses the color of the all fields.	When the reverse print is applied to slant lines, circles, or rounded rectangles are reversed, they are printed in white over black. However, overlapped area is printed in black. Also, in the case of reverse print of rounded rectangles, the areas where lines and rounded corner are overlapping with each other are printed in black.
6	^LS	Label Shift	◎	Shifts the coordinate to the left.	In the case of Zebra printer, the position or size of each data differs depending on whether ^MU or ^JM command comes before ^FO, ^FT, LH, LS, LT, LL, or PW command or after. In the case of TEC printer, the position or size differs label by label.
6	^LT	Label Top	◎	Moves the entire label format position on the label.	
9	^MA	Set Maintenance Alerts	×	Sets the cycle of the print head replacement or cleaning. Notifies the time of replacement or cleaning by issuing a label.	
6	^MC	Map Clear	◎	Specifies whether to clear the current label image after printing or not.	

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
6	^MD	Media Darkness	◎	Sets the print tone. (Relative value to the system setting value)	Since the print tone setting range for the TEC printer is -10 to +10, the setting range for a command, -30 to +30, is adjusted. When the parameter, Tone adjust (MD) command ON/OFF, in the Z-MODE is set to DISABLE, the command will be ignored.
7	^MF	Media Feed	○	Designates the feed action at a power on time or print head close.	F: Feed ([ESC]T command) C: Calibration L: Feed ([ESC]T command) N: No operation S: Calibration
9	^MI	Set maintenance Information Message	×	Sets the print data for the replacement/cleaning notification label.	
7	^ML	Maximum Label Length	◎	Sets the maximum label length. (For calibration)	Acceptable setting range (in the case of 203-dpi print head) 51mm to 989 mm (408 dots to 7912 dots) (In the case of 300-dpi print head) 50 mm to 975 mm (600 dots to 11700 dots)
7	^MM	Print Mode	○	Designates a printing mode	Only the following values are acceptable for the desired mode. T = Tear-off P = Peel-off A = Applicator C = Cutter D = Delayed cutter
7	^MN	Media Tracking	◎	Specifies a media sensor.	The value set for the parameter in the Z-MODE is the initial value. When the parameter, Label type command ON/OFF, in the Z-MODE is set to DISABLE, the command will be ignored and the value set in the Z- MODE becomes effective.
9	^MP	Mode Protection	×	Locks the control panel operation.	
99	^MS	New/Unknown	×		No description in the manual. Zebra printer does not change the behavior regardless of presence or lack of the command.

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
7	^MT	Media Type	◎	Selects thermal transfer or direct thermal.	<p>The value set for the parameter in the Z-MODE is the initial value. When the parameter, Media type command ON/OFF, in the Z-MODE is set to DISABLE, the command will be ignored and the value set in the Z-MODE becomes effective.</p> <p>The setting of the command will change depending on the default setting of the parameter setting in the Z-MODE.</p> <p>Command : Default : Setting MTD : WITHOUT RIBBON H : WITHOUT RIBBON H MTD : Other than WITHOUT RIBBON H : WITHOUT RIBBON MTT : WITH RIBBON SAVE : WITH RIBBON SAVE MTT : Other than WITH RIBBON SAVE : WITH RIBBON</p>
6	^MU	Mode Units	○	Changes the unit of measure (dot, mm, inch) and converts dots per inch of the print head.	<p>In the case of Zebra printer, the position or size of each data differs depending on whether ^MU or ^JM command comes before ^FO, ^FT, LH, LS, LT, LL, or PW command or after. In the case of TEC printer, the position or size differs label by label.</p> <p>TEC printer prints an image ignoring the specified field width (Zebra printer prints an image as far as it falls within the field, and does not print the excess parts.). When an image is enlarged, TEC printer does not print the excess parts.</p> <p>In the case a conversion result becomes 1.5 times, like 200-dpi is converted to 300-dpi, the result is ignored. If a value other than dot is set in a font set command, the font may not printed in the correct size.</p>
9	^MW	Modify Heading Warning	(×)	RS422/485 Turns on or off the indication of the warning of overheating print head.	
11	^NB	Search for Wired Print Server during Network	×		
9	^NC	Select the Primary Network Device	×	Specifies the primary network device. (In the case more than one device is set.)	
9	~NC	Network Connect	(×)	RS485	
9	^ND	Change Network Settings	×	Sets the network settings (wireless/wired)	
9	^NI	Network ID Number	(×)	RS485	
11	^NN	Set SNMP	×		
11	^NP	Set Primary/Secondary Device	×		
9	^NR	Set All Network	(×)	RS485	
9	^NS	Change	×	Sets the wired network.	

Category of function	Zebra command	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
11	^NT	Set SMTP	×		
9	^NT	Set Currently	(×)	RS485	
11	^NW	Set Web Authentication Timeout Value	×		
6	^PA	Advanced Text Properties	×	Turns on/off of the extended layout for text.	
7	^PF	Slew Given Number of Dot Rows	○	Paper feed for designated number of dots.	Zebra printer does not print anything if the value which is larger than the label length (^LL) is specified, but TEC printer does. Zebra printer feeds a blank area at high speed, but TEC printer does not change the feed speed.
7	^PH, ^PH	Slew to Home Position	○	Feeds one label.	When the printer, which is connected to a host with the Centronics, is paused, the command can be sent to a Zebra printer but not to a TEC printer. When a ^PH is sent while printing, Zebra printer performs a feed, but TEC printer ignores everything. The ^PH causes the printer to feed a label on receipt of the command. The ^PH causes the printer to feed a label after processing the command being sent is completed.
6	^PM	Printing Mirror Image of Label	◎	Prints the entire printable area of the label as a mirror image.	
6	^PO	Print Orientation	◎	Specifies the print direction (bottom first or top first)	
7	^PP, ^PP	Programmable Pause	○	Pause after printing (batch, real)	~PP command pauses after the printer completes printing under way. ^PP command pauses after the processing of commands being sent to the printer is
7	^PQ	Print Quantity	○	Sets the print count.	Issue count is from 1 to 9999. Cut interval is from 0 to 100. The range of the replicant quantity is 1 to 100.

Category of function	Zebra command	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
7	^PR	Print Rate	○	Specifies the speed of printing, slew, and reverse feed.	SX4 1 = 3ips A or 2 = 3ips B or 3 = 3ips C or 4 = 6ips 5 = 127 6ips D or 6,7 = 6ips E or 8 = 10ips 9 = 10ips 10 = 10ips 11 = 10ips 12 = 10ips 13~19 = 3ips SX5 1 = 3ips A or 2 = 3ips B or 3 = 3ips C or 4 = 5ips 5 = 127 5ips D or 6,7 = 8ips E or 8 = 8ips 9 = 8ips 10 = 8ips 11 = 8ips 12 = 8ips 13~19 = 3ips
7	^PR	Applicator	×	Reprints a label.	
7	^PS	Print Start	◎	Release from the pause state.	Only while the printer is in pause state, the pause is released. When the printer is not in pause, this command will be ignored.
6	^PW	Print Width	◎	Specifies the print width.	In the case of Zebra printer, the position or size of each data differs depending on whether ^MU or ^JM command comes before ^FO, ^FT, LH, LS, LT, LL, or PW command or after. In the case of TEC printer, the position or size differs label by label.
10	^RA	Read AFI or DSFID Byte	×	Reads AFI and DSFID by using an RA command, and sends to the host by using an HV command.	The module is not supported.
10	^RB	Define EPC Date Structure	◎	Specifies the tag format for EPC data.	
10	^RE	Enable/Disable E.A.S. Bit	×		The module is not supported.

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
10	^RF	Read or Write RFID Format	○	Writes or reads RFID tags.	Only the TID 8 byte tag can be read. Result of the tag read, "Print" or "Return to the host", is 256 bytes. Reserved area cannot be read. In the case of tag read: When the tag read does not succeed after having retrieved for the max. number of times, the printer cannot be restarted. When the tag read/write does not succeed after having retrieved for the max. number of times, the printer stops resulting in an error.
10	^RI	Get Tag Unique ID	○	Reads 32-bit TID of GEN2 tags.	Parameter "s" is ignored. When a value exceeding 10 is set for the parameter "r", it is automatically corrected to 10. Result of the tag read, "Print" or "Return to the host", is 256 bytes. When the tag read does not succeed after having retrieved for the max. number of times, the printer cannot be restarted. When the tag read does not succeed after having retrieved for the max. number of times, the printer stops resulting in an error.
10	^RM	Enable RFID Motion	○	Specifies whether to issue RFID media or not.	When RFID tag is not issued: Retry of data write or data read is not performed. Void pattern is not printed when data write or data read failed.
10	^RN	Detect Multiple RFID Tags Encoding Field	●		Done by the TEC system mode.
9	^R0	Reset Advanced Counter	○	Resets the values of the maintenance counter (The number of times RFID read/write succeeded/failed.)	Only the RFID counter clear is supported. Though this is a real-time command, it will not be processed until a next command (caret or tilda) is received.
10	^RQ	Quick Write EPC Data and Passwords	○		
10	^RR	Specify RFID Retries for Read/Write	○		

Cate gory of func tion	Zebra comm and	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
10	^RS	Set Tag Type	○		<p>Tag type</p> <p>In the case of the UHF module (U1, U2, U3) 1=EPC Class 0 (U1) 3=EPC Class 1 64-bit (U1,U3) 4=EPC Class 1 96-bit (U1,U3) 8=EPC Class1,Generation2 (U1,U2,U3) 9=ISO 18000-06B (U1) When the U1 module is installed and a value other than above is specified, the tag type is set to EPC Class 1. When the U2 or U3 module is installed and a value other than above is specified, the tag type is set to EPC Class 1 Generation 2.</p> <p>In the case of the HF module (H1, H2) Cor2=TagIt (H1) Dor3=Icode (H1) For5=ISO 15693 (H1,H2) When a value other than above is specified, the tag type is set to ISO 15693.</p>
10	^RT	Read Tag	○	Remains for compatibility with the old version	<p>USER data is read. Parameter "s" is ignored. When a value exceeding 10 is set for the parameter r, it is automatically corrected to 10. Result of the data read, "Print" or "Return to the host", is 256 bytes.</p> <p>When the tag read does not succeed after having retried for the max. number of times, the printer cannot be restarted. When the tag read does not succeed after having retried for the max. number of times, the printer stops resulting in an error.</p>
10	^RV	Report RFID Encoding Results	◎		
10	^RW	Set RFID Read and Write Power Levels	●		Done by the TEC system mode.
10	^RZ	Set RFID Tag Password and Lock Tag	○		<p>When the Access Code and the Password do not match, void pattern is printed. An Access Code is required to be set to lock the tag. When the Access Code is other than "All zeros" and "Lock" is specified, the designated block is locked.</p>
9	^SC	Set Communications	○	Sets RS-232C parameters.	Done by the BASIC application.

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
9	^SD	Set Darkness	◎	Sets the print tone. Supported by a fine adjustment by key operation. It is possible to enable or disable the function.	The value changed by an SD command is retained even after the power is turned off and on. Since the print tone setting range for the TEC printer is -10 to +10, the setting range for a command, -30 to +30, is adjusted. A value below or exceeding the setting range will be rounded to the minimum or maximum value, respectively. When the parameter, Tone adjust (SD) command ON/OFF, in the Z-MODE is set to DISABLE, the command will be ignored. This command will not be processed until a next caret is received.
1	^SE	Select Encoding	×	Specifies an encode table.	
6	^SF	Serialization Field (with a standard ^FD string)	○	Designates consecutive fields (alpha-numeric increment)	^SF command can set up to 32 fields in one label format (392 fields for Zebra), and data volume of up to 40 digits (For Zebra, up to the max. limit of FD.) In the bar code serial field, only the data which can be incremented/decremented is serialized. (shortly, 2D codes, POSTNET, and UPC/EAN are not supported.) Since the converter changes the number of digits of Code128 (because a control code is added.), increment/decrement is not performed. The bar codes of which number of digits is automatically changed by the converter and RFID data are not supported.
9	^SI	Set Sensor Intensity	×	Sets the sensor sensitivity.	
6	^SL	Set Mode/Language (for Real Time Clock)	×	Designates an RTC mode and language.	The B-SX has no RTC function.
6	^SN	Serialization Data	○	Increment/decrement of numerals Current problems need to be solved.	INC/DEC cannot be used for the all 2-D codes, POSTNET, UPC/EAN. ^SN in ^FN cannot increment/decrement bar codes only.
6	^SO	Set Offset (for Real Time Clock)	×	Designates an offset of the RTC.	The B-SX has no RTC function.
7	^SP	Start Print	×	Allows printing. (Before drawing one label image.)	
8	^SQ	Halt ZebraNet ALERT	○	Cancels a transmission of an error status.	Only the statuses supported by TPCL are effective. The applicable interfaces are RS-232C and LAN only.
9	^SR	Set Head	×	Sets the print head resistance.	

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
9	^SS	Set Media Sensors	×	Sets the sensor value.	
9	^ST	Set Time/Date (for Real Time Clock)	×	Sets the date and time for the RTC.	The B-SX has no RTC function.
8	^SX	Set ZebraNet ALERT	○	Sets an error status transmission.	Only the statuses supported by TPCL are effective. The applicable interfaces are RS-232C and LAN only. A "Print end" message is notified when the number of labels specified by the ^PQ command has been printed. If, however, a print head test interval has been specified by the ^JT command, the message is notified each time one label is printed. It is not possible to obtain more than one error information, such as head broken element, at the same time.
9	^SZ	Set ZPL	×	Sets the ZPL/ZPL II.	
7	~TA	Tear-Off Adjust Position	○	Fine adjusts the stop position The current tear-off mode method needs to be checked again. (Forward feed and automatic forward feed fine adjustment?)	This command will not become effective until a next caret is received.
6	^TB	Text Blocks	○	Designates a word wrap or rotation of the text in a specified area.	When a ^FB (field block) is specified, the printer may not operate properly. The printer behaves differently from the Zebra printer in the case of auto line feed or word-wrap.
5	^TO	Transfer Object	×	Copies objects between the memory devices.	
11	^WA	Set Antenna Parameters	×		
9	~WC	Print Configuration Label	○	Prints the system settings information	A diag. test print of the TPCL is performed. However, the diag. test is not conducted for the following. EXP.I/O, EX.232C, and RFID
9	^WD	Print Directory on Label	×	Prints a list of built-in fonts, built- in bar codes, and saved objects.	
11	^WE	Set WEP Mode	×		
10	^WF	Encode AFI or DSFID Byte	×		The module is not supported.

Category of function	Zebra command	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
11	^WI	Change Wireless Network Settings	×		
11	^WL	Set LEAP Parameters	×		
11	^WL	Print Network Configuration Label	×		
11	^WP	Set Wireless Password	×		
9	^WQ	Write Query	×	Prints the maintenance counter	
11	^WR	Set Transmit Rate	×		
11	^WR	Reset Wireless Radio Card and Print Server	×		
11	^WS	Set Wireless Radio Values	×		
10	^WT	Write Tag	○		When the access password has been programmed in the TEC system mode, the write protect parameter is ignored.
10	^WV	Verify RFID Encoding Operation	○		When the access password has been programmed in the TEC system mode, an error tag check is not performed.
11	^WX	Configure Wireless Securities	×		
4	^XA	Start Format	◎	Indicates the start of a new label format.	Even if an Xa command is received, other commands are processed.
7	^XB	Suppress Backfeed	×	Suppresses a forward feed.	
5	^XF	Recall Format	◎	Loads stored format.	Drive assignment is different from Zebra's. R: RAM E: FROM B: ATA card A: ATA card When omitted, the format is searched from R, E, B, and A, in order.

Cate gory of func tion	Zebra comma nd	Zebra command function	SX4/5 C5.7	Command functions	Remarks (restrictions) C5.7
5	^XG	Recall Graphic	◎	Loads saved graphic data.	Drive assignment is different from Zebra's. R: RAM E: FROM B: FROM A: FROM When omitted, R: is designated. (Zebra searches the drive in order of R, E, B, and A.)
4	^XZ	End Format	◎	Indicates the end of a label format.	While a label format is being saved by a DF command, the data save is started. While a label format is being recalled by an XF command, recalling of the data is completed. When printable data exists, an issue command is sent.
7	^ZZ	Printer Sleep	(×)	Automatic shut down	

◎	63
○	67
●	5
No. of supported	135
×	91
Total	226