^CI – Change International Font/Encoding

Description Zebra printers can print fonts using international character sets: U.S.A.1, U.S.A.2, UK, Holland, Denmark/Norway, Sweden/Finland, Germany, France 1, France 2, Italy, Spain, and several other sets, including the Unicode character set.

The ^CI command enables you to call up the international character set you want to use for printing. You can mix character sets on a label.

A character within a font can be remapped to a different numerical position.

In x.14 version of firmware and later, this command allows character remapping when parameter a = 0-13.

Format ^CIa,s1,d1,s2,d2,...

Parameters	Details
a = desired character set **Note** • These parameters are only valid when parameter **a =** 1 - 13	Accepted values 0 - 12 are Zebra Code Page 850 with specific character replacements. For details, see *International Character Sets* on page 156 and/or *Zebra Code Page 850 — Latin Character Set* on page 1167. *Accepted Values:* 0 = Single Byte Encoding - U.S.A. 1 Character Set 1 = Single Byte Encoding - U.S.A. 2 Character Set 2 = Single Byte Encoding - U.K. Character Set 3 = Single Byte Encoding - Holland Character Set 4 = Single Byte Encoding - Denmark/Norway Character Set 5 = Single Byte Encoding - Sweden/Finland Character Set 6 = Single Byte Encoding - Germany Character Set 7 = Single Byte Encoding - France 1 Character Set 8 = Single Byte Encoding - France 2 Character Set 9 = Single Byte Encoding - Italy Character Set 10 = Single Byte Encoding - Spain Character Set *(parameter details continued on next page)*

a. The encoding is controlled by the conversion table (*.DAT). The correct table must be present for the conversion to function. The table generated by ZTools™ is the TrueType fonts internal encoding (Unicode).
b. Shift-JIS encoding converts Shift-JIS to JIS and then looks up the JIS conversion in JIS.DAT. This table must be present for Shift-JIS to function.
c. Supports ASCII transparency for Asian encodings. 7F and less are treated as single byte characters. 80 to FE is treated as the first byte of a 2 byte character 8000 to FEFF in the encoding table for Unicode.
d. The ^CI17 command has been deprecated, along with the ^F8 and ^F16 commands that are required for the ^CI17 command to function. The recommended replacement is the ^CI28-30 commands.

Parameters	Details
a = desired character set (continued) .14↑ Values 28 to 30 are only supported in firmware version V60.14.x, V50.14.x, or later. .16↑ Values 31 to 36 are only supported in firmware version x.16.x or later.	11 = Single Byte Encoding - Miscellaneous Character Set 12 = Single Byte Encoding - Japan (ASCII with Yen symbol) Character Set 13 = Zebra Code Page 850 (see page 1167) 14 = Double Byte Asian Encodings [a] 15 = Shift-JIS [b] 16 = EUC-JP and EUC-CN [a] 17 = Deprecated - UCS-2 Big Endian [d] 18 to 23 = Reserved 24 = Single Byte Asian Encodings [a] 25 = Reserved 26 = Multibyte Asian Encodings with ASCII Transparency [a] and [c] 27 = Zebra Code Page 1252 (see page 1172) 28 = Unicode (UTF-8 encoding) - Unicode Character Set 29 = Unicode (UTF-16 Big-Endian encoding) - Unicode Character Set 30 = Unicode (UTF-16 Little-Endian encoding) - Unicode Character Set 31 = Zebra Code Page 1250 (see page 1170) is supported for scalable fonts, such as Font 0, or a downloaded TrueType font. Bitmapped fonts (including fonts A-H) do **not** fully support Zebra Code Page 1250. This value is supported only on Zebra G-Series™ printers. 33 = Code Page 1251 34 = Code page 1253 35 = Code Page 1254 36 = Code Page 1255 *Initial Value at power-up:* 0
s1 = source 1 (character output image)	*Accepted Values:* decimals 0 to 255
d1 = destination 1 (character input)	*Accepted Values:* decimals 0 to 255
s2 = source 2 (character output image)	*Accepted Values:* decimals 0 to 255
d2 = destination 2 (character input)	*Accepted Values:* decimals 0 to 255
... = continuation of pattern	Up to 256 source and destination pairs can be entered in this command.

a. The encoding is controlled by the conversion table (*.DAT). The correct table must be present for the conversion to function. The table generated by ZTools™ is the TrueType fonts internal encoding (Unicode).

b. Shift-JIS encoding converts Shift-JIS to JIS and then looks up the JIS conversion in JIS.DAT. This table must be present for Shift-JIS to function.

c. Supports ASCII transparency for Asian encodings. 7F and less are treated as single byte characters. 80 to FE is treated as the first byte of a 2 byte character 8000 to FEFF in the encoding table for Unicode.

d. The ^CI17 command has been deprecated, along with the ^F8 and ^F16 commands that are required for the ^CI17 command to function. The recommended replacement is the ^CI28-30 commands.

.14↑ 80 to FF could mean quad byte in GB18030. The ^CI26 command can also be used to support the GB 18030 and Big5 HKSCS encodings. The GB 18030 uses the GB18030.DAT encoding table and BIG5 HKSCS uses the BIG5HK.DAT encoding table.

.14↑ The ^CI17 command has been deprecated, along with the ^F8 and ^F16 commands that are required for the ^CI17 command to function. The recommended replacement is the ^CI28-30 commands.

.14↑ We recommend that a ^CI command (or Unicode BOM) is included at the beginning of each ZPL script. This is important when ZPL scripts with different encodings are being sent to a single printer. To assist in the interleaving of encoding schemes, the printer maintains two encoding states (^CI0 - 28 and ^CI29 - 30). It automatically acknowledges when it should switch encoding states, allowing it to distinguish between encodings, and maintains a ^CI for each, but endianess is shared.

Example • This example remaps the Euro symbol (21) decimal to the dollar sign value (36) decimal. When the dollar sign character is sent to the printer, the Euro symbol prints:

ZPL II CODE	GENERATED LABEL
^XA ^CI0,21,36 ^FO100,200^A0N50,50^FD$0123^FS ^XZ	€0123

The font selected determines the shape and resolution of the printed symbol.

International Character Sets

Hex	23	30	40	5B	5C	5D	5E	60	7B	7C	7D	7E
CI0	#	0	@	[	¢	]	^	`	{	¦	}	~
CI1	#	0	@	⅓	¢	⅔	^	`	¼	½	¾	~
CI2	£	0	@	[	¢	]	^	`	{	¦	}	~
CI3	ƒ	0	§	[	IJ	]	^	`	{	ij	}	~
CI4	#	0	@	Æ	Ø	Å	^	`	æ	ø	å	~
CI5	Ü	0	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
CI6	#	0	§	Ä	Ö	Ü	^	`	ä	ö	ü	ß
CI7	£	0	à	[	ç	]	^	`	é	¦	ù	è
CI8	#	0	à	â	ç	ê	î	ô	é	ù	è	û
CI9	£	0	§	[	ç	é	^	ù	à	ò	è	ì
CI10	#	0	§	¡	Ñ	¿	^	`	{	ñ	ç	~
CI11	£	0	É	Ä	Ö	Ü	^	ä	ë	ï	ö	ü
CI12	#	0	@	[	¥	]	^	`	{	¦	}	~
CI13	#	0	@	[	\	]	^	`	{	¦	}	~

Note • `^CI 13 =` US keyboard

Comments The *space* character cannot be remapped for any font.