Programmer’s Manual
DEC PPL2
for LA printers

Table of Contents

DEC PPL2 Quick Reference 3
Conventions 4
Positioning Controls and Tabs 5
Sheet Size and Margins 8
Type Size and Spacing, Managing Implicit Cursor Motion 9
Font Management and Attribute Selection 10
Selecting Character Sets 12
SCS Final Characters 14
SCS Final Characters for Fallback Character Sets 16
Reports 17
Miscellaneous 19
Barcode Printing 21
Sixel Graphics Device Control String Envelope 24
Sixel Graphics Protocol Selector Ps1 24
Sixel Graphics Grid Size defined by Pn3 25
Sixel Graphics Control Codes 25
Standard 8-bit Code Table (Left Half) 27
Standard 8-bit Code Table (Right Half) 28
Designating and Invoking Character Sets 29
National Replacement Character sets 30
National Replacement Character sets (cont.) 31
IBM Proprinter Quick Reference 32
EPSON ESC/P2 Quick Reference 40
Character Sets 50
DEC Character Set Tables 50
Generic Character Set Tables 65
IBM Character Set Tables 76
IBM Character Set 1 76
IBM Character Set 2 77
EPSON Character Set Tables 78
Retrieving Access to Configuration 87

DEC PPL2 Quick Reference

This section contains basic information on the DEC PPL2 commands supported in the printer.

The commands are listed by function, in the following order:

- Positioning Controls and Tabs
- Sheet size and margins
- Type size and spacing, managing implicit cursor motion
- Font management and attribute selection
- Selecting character sets
- Reports
- Miscellaneous
- Barcode printing
- Graphics

Please refer also to your printer documentation (user guide) for information about supported commands. They may differ from the described sequences and codes herein.

This guide is intended for use in conjunction with the *Digital Ansi-compliant Printing Protocol Level 2 Programming Reference Manual* and the *Digital Ansi-compliant Printing Protocol Level 2 Programming Supplement*. These are referred to simply as the Programming Reference Manual and the Programming Supplement, respectively.

The following table explains some of the conventions used.

A pair of numbers separated by a slash (/) character indicates Column/Row notation. This notation refers to the location of a character in a standard code table, such as ASCII.

Spaces appear between characters in sequences for clarity; they are not part of the format. Space is designated as "*SP*" when it is part of the format of a command or sequence.

The following conventions are used in the command listings:

Conventions

Code	Description
ESC	Escape (1/11), introduces an escape sequence.
CSI	Control Sequence Introducer (9/11), introduces a control sequence. CSI can also be represented by the equivalent escape sequence *ESC [* (1/11 5/11).
DCS	Device Control String (9/0), introduces a device control string. DCS can also be represented by the equivalent escape sequence *ESC P* (1/11 5/0)
ST	String Terminator (9/12) indicates the end of a control string. ST can also be represented by the equivalent escape sequence *ESC* \ (1/11 5/12).
P_n	Numeric parameter, or number of units that specify a distance or quantity pertaining to the escape sequence, control function or control string.
P_s	Selective parameter or one that identifies a list of options pertaining to the specific command. If ">" (3/14) or "?" (3/15) occurs at the beginning of a string of parameters, the following parameters are Digital private parameters. ">" or "?", if present must occur only once at the beginning of the parameter string.
I_n	Intermediate character - component of an escape sequence, control sequence or control string.
F	Final character - component of an escape sequence, control sequence or control string
SP	Space (2/0)
	C0 Control Characters are given in figure "Standard 8-bit Code Table (Left Half)".
	C1 Control Characters are given in figure "Standard 8-bit Code Table (Right Half)". In the 7-bit environment, C1 Control Characters can be sent with an escape sequence provided in the following tables.
	Both numeric and selective parameters are interpreted as unsigned decimal integers, with the most significant digit sent first. For instance, the value 16 is coded as "16" (3/1 3/6). Leading zeros are allowed but are ignored. Plus and minus signs are not allowed.

Positioning Controls and Tabs

Mnemonic	Function	Command	Remarks
BS	Backspace	0/8	C0 Control Code
CR	Carriage Return	0/13	C0 Control Code
FF	Form Feed	0/12	C0 Control Code
HT	Horizontal Tab	0/9	C0 Control Code
LF	Line Feed	0/10	C0 Control Code
VT	Vertical Tab	0/11	C0 Control Code
HTS	Horizontal Tab Set, at current position	8/8	*C1 Control Code* 7-bit environment: *ESC H*
IND	Index	8/4	*C1 Control Code* 7-bit environment: *ESC D*
NEL	Next Line	8/5	*C1 Control Code* 7-bit environment: *ESC E*
PLD	Partial Line Down	8/11	*C1 Control Code* 7-bit environment: *ESC K* Advance paper 1/12 in.
PLU	Partial Line Up	8/12	*C1 Control Code* 7-bit environment: *ESC L* Reverse paper 1/12 in.
VTS	Vertical Tab Set, at current position	8/10	*C1 Control Code* 7-bit environment: *ESC J*
DECCAHT	Clear All Horizontal Tabs	ESC 2	
DECCAVT	Clear All Vertical Tabs	ESC 4	
DECSHTS	Set Horizontal Tab Stops	CSI P_n ; ... ; P_n u	P_n = tabstop position (max. 16)
DECSVTS	Set Vertical Tab Stops	CSI P_n ; ... ; P_n v	P_n = tabstop position (max. 16)

Mnemonic	Function	Command	Remarks
DECHTS	Horizontal Tab Set	ESC 1	
DECVTS	Vertical Tab Set	ESC 3	
TBC	Tab Clear	CSI P_s ; ... ; P_s g	P_s=0: Clear horiz. Tab at active position P_s=1: Clear vert. tab at active position
PLD	Partial Line Down	8/11	*C1 Control Code* 7-bit environment: *ESC K* Advance paper 1/12 in.
PLU	Partial Line Up	8/12	*C1 Control Code* 7-bit environment: *ESC L* Reverse paper 1/12 in.
VTS	Vertical Tab Set, at current position	8/10	*C1 Control Code* 7-bit environment: *ESC J*
DECCAHT	Clear All Horizontal Tabs	ESC 2	
DECCAVT	Clear All Vertical Tabs	ESC 4	
DECSHTS	Set Horizontal Tab Stops	CSI P_n ; ... ; P_n u	P_n = tabstop position (max. 16)
DECSVTS	Set Vertical Tab Stops	CSI P_n ; ... ; P_n v	P_n = tabstop position (max. 16)
DECHTS	Horizontal Tab Set	ESC 1	
DECVTS	Vertical Tab Set	ESC 3	

Mnemonic	Function	Command	Remarks
TBC	Tab Clear	CSI P_s ; ... ; P_s g	P_s=0: Clear horiz. Tab at active position P_s=1: Clear vert. tab at active position P_s=2 or 3: Clear all horiz. tabs P_s=4: Clear all vert. tabs
HPA	Horizontal Position Absolute	*CSI* P_n '	P_n = position to move to
HPR	Horizontal Position Relative	*CSI* P_n *a*	P_n = position of columns down
VPA	Vertical Position Absolute	*CSI* P_n *d*	P_n = position to move to
VPR	Vertical Position Relative	*CSI* P_n *e*	P_n = number of lines down

Sheet Size and Margins

Mnemonic	Function	Command	Remarks
DECSLPP	Set Lines per Physical Page	CSI P_n t	P_n = number of lines per pages
DECVPLA	Set Vertical Page Length Alignment	CSI P_{n1}; P_{n2} - u	P_{n1} = Position of the origin from top of form (in 1/72 in.) $P_{n\ 2}$ = Paper length in 1/720 in.
DECSLRM	Set Left and Right Margins	CSI P_{n1}; P_{n2} s	P_{n1} = left margin P_{n2} = right margin
DECHPWA	Set Page Width Alignment	CSI P_{n1}; P_{n2} " s	P_{n1}* = origin P_{n2}* = paper width
DECSTBM	Set Top and Bottom Margins	CSI P_{n1}; P_{n2} r	P_{n1} = top margin P_{n2} = bottom margin

* Units are in 1/12 inch

Type Size and Spacing, Managing Implicit Cursor Motion

Mnemonic	Function	Command	Remarks	
DECAWM	Autowrap Mode	CSI ? 7 h CSI ? 7 l	Set autowrap mode Reset autowrap mode	
DECCRNLM	Carriage Return/ New Line Mode	CSI ? 40 h CSI ? 40 l	CR acts as New Line CR acts as Carriage Return	
DECPSP	Proportional Spacing Mode	CSI ? 27 h CSI ? 27 l	Sets proportional spacing mode Resets proportional spacing mode	
DECSHORP	Set Horizontal Pitch	CSI P_s w	P_s = 0: 10 CPI P_s = 1: 10 CPI P_s = 2: 12 CPI P_s = 3: 13.3 CPI P_s = 4: 16.5 CPI P_s = 5: 5 CPI P_s = 6: 6 CPI P_s = 7: 6.65 CPI	P_s = 8: 8.25 CPI P_s = 9: 15 CPI P_s = 11: 17.1 CPI P_s = 12: 8.6 CPI P_s = 13: 18 CPI P_s = 14: 9 CPI P_s = 15: 10 CPI P_s = 16: 20 CPI
GSM	Graphic Size Modification	CSI Pn_1 ; Pn_2 SP B	P_{n1} = 100: Normal height characters P_{n1} = 200: Double height P_{n1} = 300: Triple height P_{n1} = 400: Quadruple height P_{n2} = 100: Normal width characters P_{n2} = 200: Double width P_{n2} = 300: Triple width P_{n2} = 400: Quadruple width	
LNM	Line Feed/ New Line Mode	CSI 2 0 h CSI 2 0 l	LF acts as new line. LF acts as line feed.	

* LPcm = Lines per centimeter

Font Management and Attribute Selection

Mnemonic	Function	Command	Remarks
SGR	Select Graphic Rendition Selecting Font	CSI P_s m	P_s = 10 : Courier P_s = 11 : Roman P_s = 12 : Sans Serif P_s = 13 : Prestige P_s = 14 : Script P_s = 15 : Courier P_s = 16 : Orator P_s = 17 : Optional card font (not available) P_s = 18 : OCR-A P_s = 19 : OCR-B P_s = ?12 : Data Block
SGR	Select Graphic Rendition Selecting Attributes	CSI P_s m	P_s = 0: Turn off all attributes, standard and private P_s = 1: Bold on P_s = 3: Slant on P_s = 4: Underline on; double underline off P_s = 9: Strike-through on P_s = 21: Double underline on, underline off P_s = 22: Bold off P_s = 23: Slant off P_s = 24: Any underline off

Mnemonic	Function	Command	Remarks
			P_s = 29: Strike-through on P_s = 30: Print Text in black P_s = 31: Print text in red P_s = 32: Print text in green P_s = 33: Print text in yellow P_s = 34: Print text in blue P_s = 35: Print text in magenta P_s = 36: Print text in cyan P_s = 37: Print text in "white" (no printing) P_s = 39: Print text in black P_s = 53: Overline on P_s = 55: Overline off P_s = ?0: All private attributes off P_s = ?4: Superscript on, sub-script off P_s = ?5: Subscript on, super-script off P_s = ?6: Overline on P_s = ?24: Superscript and sub-script off P_s = ?26: Overline off

Selecting Character Sets

Mnemonic	Function	Command	Remarks
ASCEF	Announce Subset of Code Extension Facilities	ESC SP L ESC SP M ESC SP N	ASCII in G0 and GL. ISO Latin-1 in G1 and GR. Same as ESC SP L ASCII in G0 and GL.
DECAUPSS	Assign User Preference Supplemental Set	DCS P_s ! u D ... D ST	P_s = 0: 94-char.set P_s = 1: 96-char.set D ... D:SCS designating sequence.
SS2	Single Shift 2	C1 Control Code	Take the next character from G2
		7-bit environment: *ESC N*	
SS3	Single Shift 3	C1 Control Code	Take the next character from G3
		7-bit environment: *ESC O*	
LS0	Locking Shift 0 (or Shift In)	SI	Invoke G0 into GL
LS1	Locking Shift 1 (or Shift Out)	SO	Invoke G1 into GL
LS2	Locking Shift 2	ESC n	Invoke G2 into GL
LS3	Locking Shift 3	ESC o	Invoke G3 into GL
LS1	Locking Shift 1 Right	ESC ~	Invoke G1 into GR
LS2	Locking Shift 2 Right	ESC }	Invoke G2 into GR
LS3	Locking Shift 3 Right	ESC |	Invoke G3 into GR

Mnemonic	Function	Command	Remarks
SCS	Select Character Set	ESC I_1 I_2 F	I_1 = "(": Invoke 94-char.set into G0 I_1 = ")": Invoke 94-char.set into G1 I_1 = "*": Invoke 94-char.set into G2 I_1 = "+": Invoke 94-char.set into G3 I_1 = "-": Invoke 96-char.set into G1 I_1 = ".": Invoke 96-char.set into G2 I_1 = "/": Invoke 96-char.set into G3 I_2F = final characters from "SCS Final Characters".

SCS Final Characters

Character Set	I_2 F Designator Characters	
94-Character Sets		
British	A	4/1
ASCII	B	4/2
DEC Dutch	4	3/4
DEC Finnish	5	3/5
French	R	5/2
DEC French-Canadian	9	3/9
German	K	4/11
DEC Hebrew Supplemental	"4	2/2, 3/4
DEC 7-Bit Hebrew	%=	2/5, 3/13
ISO Italian	Y	5/9
Legal	%4	2/5, 3/4
JIS Katakana	I	4/9
JIS Roman	J	4/10
DEC Norwegian/Danish	6	3/6
ISO Spanish	Z	5/10
DEC Swedish	7	3/7
DEC Swiss	=	3/13
Norwegian/Danish	'	6/0
DEC Supplemental	%5	2/5, 3/5
DEC Technical	>	3/14
DEC Special Graphics	0	3/0
DEC Portuguese	%6	2/5, 3/6

SCS Final Characters (cont.)

Character Set	I_2 F Designator Characters	
94-Character Sets		
DEC 7-Bit Turkish	%2	2/5, 3/2
DEC 8-Bit Turkish Supplemental	%0	2/5, 3/0
DEC 8-Bit Greek Supplemental	"?	2/2, 3/15
User Preference Supplemental	<	3/12
Download Character Set	SP@	2/0, 4/0
User Preference Supplemental	I_2 F Designator Characters	
96-Character Sets		
ISO Latin-1 Supplemental	A	4/1
ISO Latin-2 Supplemental	B	4/2
ISO Latin-Greek Supplemental	F	4/6
ISO Latin-Hebrew Supplemental	H	4/8
ISO Latin-Cyrillic Supplemental	L	4/12
ISO Latin-5 Supplemental	M	4/13
ISO Latin-9 Supplemental (*)	b	6/2
User Preference Supplemental	<	3/12
Dowloaded Character Set	SP@	2/0, 4/0

*) Contains the Euro Symbol (€)

SCS Final Characters for Fallback Character Sets

Character Set Conventions	F Designator Character	
Fallback to DEC Finnish	C	4/3
Fallback to DEC French Canadian	Q	5/1
Fallback to DEC Norwegian/Danish	E	4/5
Fallback to DEC Swedish	H	4/8

Reports

Mnemonic	Function	Command	Remarks
DA	Device Attributes	CSI Ps c	Request Device Attributes Report. Ps must be 0.
DAR	Device Attributes Report	ESC [? P_{s1}; P_{s2} ; ... ; P_{sn} c (printer to host)	P_{s1} = 72 P_{s2}-P_{sn} describe extensions. See the Programming Supplement.
DA2	Secondary Device Attributes	CSI > P_s c	P_s must be 0.
DA2R	Secondary Device Attributes Report	ESC [> P_{s1} ; P_{s2} ; P_{s3} ; P_{s4} ; P_{s5} c (printer to host)	P_{s1} = 69 P_{s2} = firmware revision x 10 P_{s3} = 0 (or 1 *reserved*) P_{s4} = 20 P_{s5} = firmware edit revision

Reports (cont.)

Mnemonic	Function	Command	Remarks
DECLANS	Load ANSWERBACK without Password	DCS P_{s1} v encoded_mess_string ST	Message is Hex. encoded.
DECLANS	Load ANSWERBACK with Password	DCS P_{s1};P_{n2};P_{n3}v encoded_mess_string ST	P_s = 1 : No password - Do not store message. P_s = 2: No password - Store message: P_s = 3: Password – Store P_{n2}: Old password P_{n3}: New password Default password: 0 Password range: 0 - 9999
ENQ	Send ANSWERBACK Message	0/5	C0 Control Code
DECRFS	Request Font Status	CSI Ps " {	P_s must be 3
DSR	Device Status Request	CSI Ps n	P_s = 0 or 5: Request extended DSR P_s = ?1: Disable unsolicited reports P_s = ?2: Enable brief unsolicited reports, send extended report P_s = ?3: Enable/send extended unsolicited reports
DSR	Device Status Report	Brief: CSI P_s n Extended: brief, followed by CSI ? P_{n1} ; P_{n2} ; ... ; P_{nn} n	P_s = 0: No errors P_s = 3: Error See the *Programming Supplement* for extended report.

Miscellaneous

Mnemonic	Function	Command	Remarks
BEL	Bell	0/7	C0 Control Code
DECSCL	Select Conformance Level	CSI Ps1 " p	P_s = 0: reset native level P_s = 71: reset - DEC PPL1 P_s = 72: reset - DEC PPL2
DECSTR	Soft Terminal Reset	CSI ! p	Reset to initial state
RIS	Reset to initial state	ESC c	Reset to initial state
DECIPEM	IBM Proprinter Protocol Mode	CSI ? 58 h CSI ? 58 l	Deprecated function
ROCS	Return from Other Coding System	ESC % @	Return to DEC PPL2 mode
SOCS	Select Other Coding System	ESC % = ESC % SP 2	IBM Proprinter Protocol EPSON Protocol
CRM	Control Representation Mode	CSI 3 h CSI 3 l	Print hex representation for all characters Reset
DECFNVR2	Load Factory NVR Settings	CDS P_s ; P_{s2} " s data_string ST	P_{s1} = 0: omitted, default P_{s1} = 1: Store current state (data ignored) P_{s1} = 2: Modify with following data, store P_{s1} = 3: Load NVRAM, modify, store P_{s1} = 4: Load Factory Defaults, modify, store P_{s2} = 0: omitted, default P_{s2} = 1: data is ASCII encoded setup P_{s1} ; P_{s2} ; ... ; P_{si} ; ... P_{si}: index of the value for parameter i P_{si} = 0 or omitted: leave unchanged

Miscellaneous

Mnemonic	Function	Command	Remarks
DECASFC	Automatic Sheet Feeder Control	CSI P_s ! v	P_s = 0: No change, eject paper P_s = 1-3: Tray n (reserved) P_s = 4: Front1 Tractor feeding P_s = 5: Front2 Tractor feeding P_s = 99: Manual feed
DECSITF	Select Input Tray Failover	CSI P_{s1} ; P_{s2} ; ... ; P_{sn} SP w	$P_{s\ 1}$ = 0: Disable all composite input trays $P_{s\ 1}$ = 1: Define composite tray n P_{s2}-P_{sn} = n: Add tray n to the composite definition
DECPHGC	Printhead Gap Control	CSI P_s - s	P_s = 0: Automatic Gap Control (AGC) P_s = 1-5 : Programmable Copy Control mode(PCC) - number of copies
DECUPM	Unidirectional Print Mode	CSI ? 41 h CSI ? 41 l	Selects unidirectional printing Selects bi-directional printing
SnC1R /DEC*C1	C1 Transmit /Receive	ESC SP 6 ESC SP 7 ESC SP F ESC SP G	Process 7-bit, drop 8th but Process 7-bit and 8-bit Transmit 8-bit as 7-bit equivalents Transmit 8-bit (not supported)

Barcode Printing

Mnemonic	Function	Command	Remarks
DECBAR	Start or Stop Bar Codes	ESC % SP 0 ESC % @	Start bar code. Stop bar code.
DECSBCA	Select Bar Code Attributes	CSI P_{s1} ; P_{s2} ; … ; P_{s9} ' q	
	Parameter	**Description**	**Value**
	P_{s1}	Bar Code System	0, 2: Code 3 of 9 1: Interleaved 2 of 5 4: EAN 8 5: EAN 13 7: Codabar a/t 8: Codabar b/n 9: Codabar c/* 10: Codabar d/e 11: UPC-A 12: UPC-E 13: Postnet 14: Industrial 2 of 5 15: Code 93 (not supported) 16: MSI mod 10/10 17: Code 128 (EAN 128) 18: Matrix 2 of 5
	P_{n2}	Width of narrow bars in decipoints	Supported values: 8 to 45 (default = 10) Not applicable to UPC, EAN and Postnet systems.

Barcode Printing (cont.)

Mnemonic	Function	Command	Remarks
	Parameter	**Description**	**Value**
	P_{n3}	Width of quiet zones in decipoints	Supported value: 180.
	P_{n4}	Width of wide bars in decipoints	For EAN, UPC, supported values are in the range 20 to 158 (default is 25). P_{n4} is not used for Code 93, MSI 10/10 and Code 128 systems. Postnet bar code style is fixed to 0,0217" for bars and to 0,0255" for spaces. Pitch is 21,18 bars/inch.
	P_{n5}	Ignored	
	P_{n6}	Height of bars in decipoints	Min = 60 Max = 2400 Default = 120
	P_{n7}	Ignored	
	P_{n8}	Orientation	0, 1 or none : Horizontal symbol from left to right (portrait)
			3: Vertical symbol from bottom to top (landscape - not applicable for EAN 8 & 13, UPC A & E
	P_{s9}	Human Readable Characters	0, 1: No HRC 2, 3, 4: Print HRC in OCR B Ignored for Postnet

Notes on Barcode Printing

After printing bar code, appropriate positioning control commands, must be sent to print additional barcode strings, text or graphics.
In the following examples, HPA Pn command positions the Active Position at column Pn, VPA Pn command positions the Active Position at line Pn.

1. Two barcodes Code 39 on the same line:

DECSBCA	CSI 0;;;;;;;;'q
DECBAR(start) data DECBAR(stop) HPA Pn	ESC % SP0 data ESC % @ CSI Pn ‘
DECBAR (start) data DECBAR (stop)	ESC % SP0 data ESC % @

2. Two barcodes Code 39 on the same line:

DECSBCA	CSI 0;;;;;;;;'q
DECBAR(start) data DECBAR(stop) VPA Pn	ESC % SP0 data ESC % @ CSI Pn d
DECBAR (start) data DECBAR (stop)	ESC % SP0 data ESC % @

Sixel Graphics Device Control String Envelope

Mnemonic	Function	Command
DCS	**String Introducer**	
P_{s1}; P_{n2} ; P_{n3} q	Protocol Selector	P_{s1}: macro parameter, select horizontal grid size and pixel aspect ratio. See Table "Sixel Graphics Protocol Selector P_{s1}" (below). P_{s2}: ignored. P_{n3}: horizontal grid size - overrides P_{s1} for horizontal grid size - aspect ratio unchanged. See Table "Sixel Graphics Grid Size defined by P_{n3}" (next page).
sixel data	Picture data	Includes sixel printable characters and sixel control codes. See Table "Sixel Graphics Control Codes" (next page).
ST	String Terminator	Exit Sixel Graphics mode and return to text mode.

Sixel Graphics Protocol Selector P_{s1}

Ps1 Value	Horizontal Grid Size (inches)	Aspect Ratio (Vert:Hor)*
0, 1 or none	1/144	2
2	1/360	5
3, 4	1/180	2.5
5, 6, 7, 8	1/144	2
9	1/72	1
> 9	1/144	2

* Vertical Grid Size = 1/72 inch, unless modified by P_{n3} or DECGRA.

Sixel Graphics Grid Size defined by P_{n3}

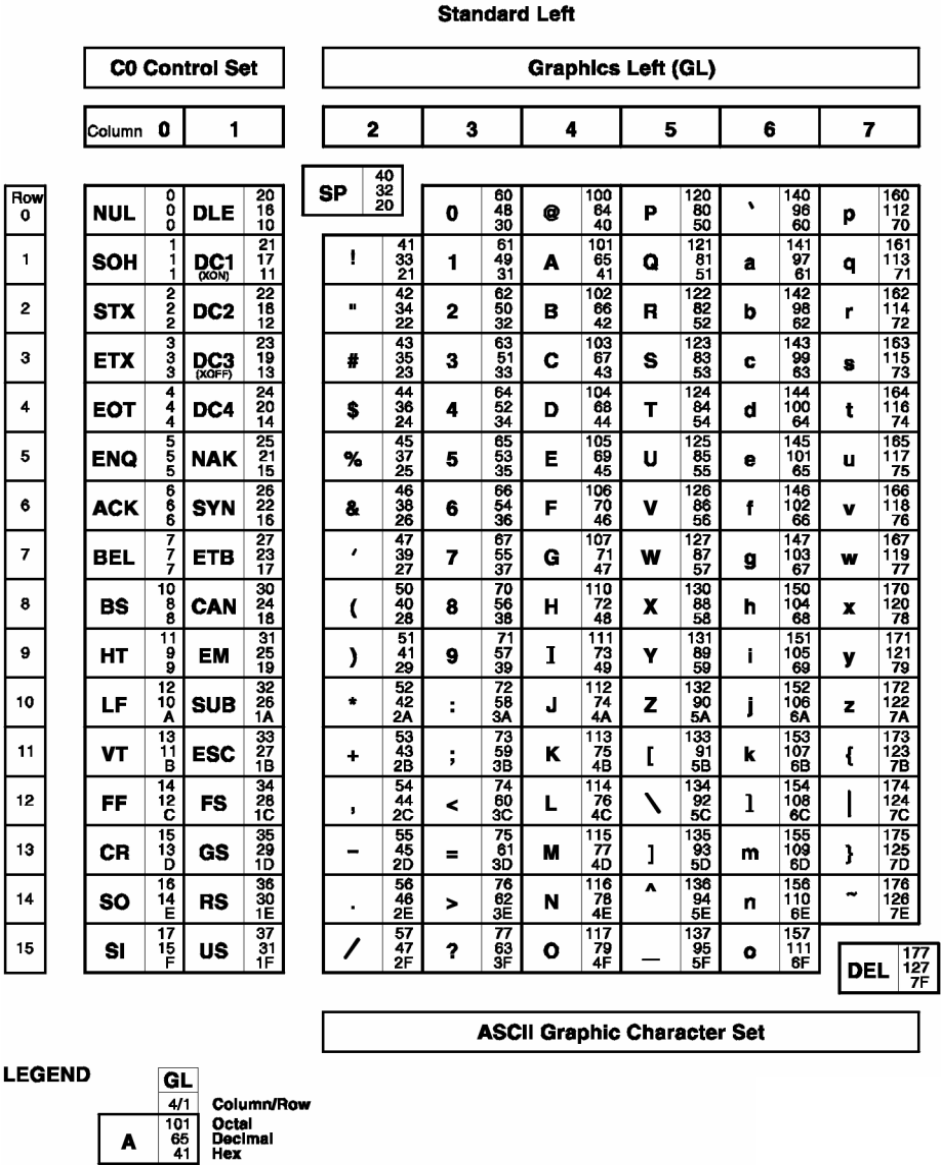
Pn 3 Value	HGS:VGS (dpi) by Aspect Ratio (defined by P_{s1})			
	1:1	2:1	2.5:1	5:1
0 or none	No change to HGS and VGS defined by P_{s1}			
1, 2	360:360	360:180	360:144	360:72
3, 4	180:180	180:90	180:72	180:36
5, 6, 7	144:144	144:72	180:72	180:36
8, 9	90:90	90:45	90:36	180:36
10 - 15	72:72	72:36	90:36	180:36
16, 19	45:45	72:36	90:36	180:36
> 20	36:36	72:36	90:36	180:36

Sixel Graphics Control Codes

Mnemonic	Function	Command	Remarks
DECGRA	Set Raster Attributes	" (2/2)	Defines the pixel aspect ratio. Followed by parameters P_{n1} ; P_{n2} ; P_{n3}; P_{n4} P_{n1}: Pixel aspect ratio numerator (A) P_{n2}: Pixel aspect ratio denominator (R), where 0 < A/R < 1.5 corresponds to 1:1 1.5 ≤ A/R << 2.25 corresponds to 2:1 2.25 ≤ A/R << 3.75 corresponds to 2.5:1 3.75 ≤ A/R corresponds to 5:1 P_{n3} and P_{n4} : ignored
DECGRI	Graphics Repeat Introducer	! (2/1)	Followed by a numeric value P_n and a sixel data to be repeated P_n times.

Mnemonic	Function	Command	Remarks
DECGCR	Graphics Carriage Return	$ (2/4)	Returns active positions to graphics left margins
DECGNL	Graphics Next Line	- (2/13)	Returns active position to graphics left margin on the following line
DECGCI	Graphics Color Introducer	# (2/3)	Assigns a color to a color number or selects a predefined color number. Followed by parameters P_c ; P_u ; P_x ; P_y; P_z P_c: Color number (0-255) P_u: Universal coordinate system selector: 1=HLS, 2=RGB P_x, P_y, P_z: color coordinates.
	Parameter Characters	0-9 (3/0) - (3/9)	Numeric parameters - used on the above control codes
	Parameter Separator	; (3/11)	Separates parameters - used on the above control codes
	Sixel Data	(3/15 – 3/14)	Sixel printable characters. The printer substracts the offset (3F hexadecimal) from the received code, assigning each of the remaining low-order six bits to a grid position: LSB = top pixel MSB = bottom pixel Examples: ? (3/15): blank character @ (4/0): print only top pixel A (4/1) : print second-from-top pixel ~ (7/15): print one full column

Standard 8-bit Code Table (Left Half)



Standard Left

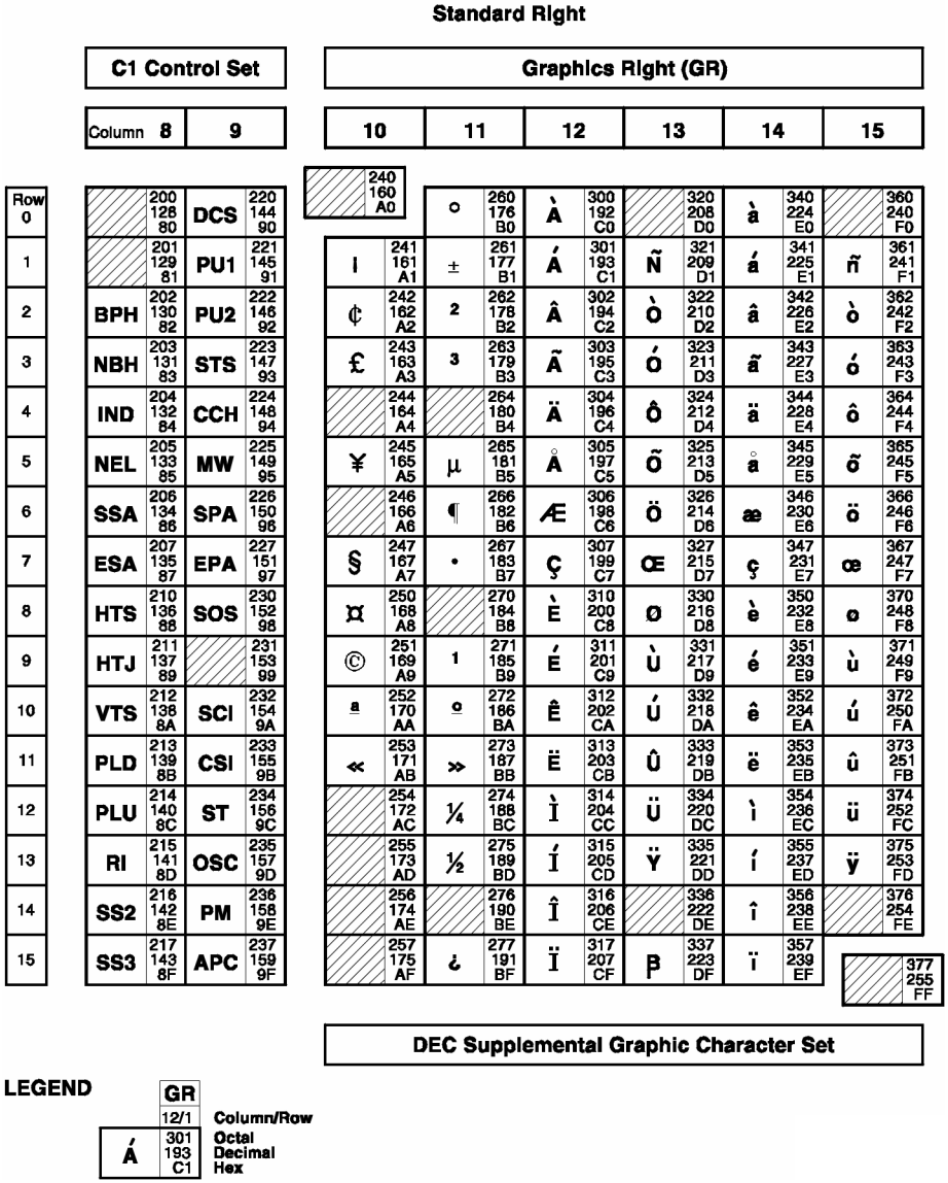
	C0 Control Set				Graphics Left (GL)													
Column	0		1		2		3		4		5		6		7			
Row 0	NUL	0 0 0	DLE	20 16 10	SP	40 32 20	0	60 48 30	@	100 64 40	P	120 80 50	`	140 96 60	p	160 112 70		
1	SOH	1 1 1	DC1 (XON)	21 17 11	!	41 33 21	1	61 49 31	A	101 65 41	Q	121 81 51	a	141 97 61	q	161 113 71		
2	STX	2 2 2	DC2	22 18 12	"	42 34 22	2	62 50 32	B	102 66 42	R	122 82 52	b	142 98 62	r	162 114 72		
3	ETX	3 3 3	DC3 (XOFF)	23 19 13	#	43 35 23	3	63 51 33	C	103 67 43	S	123 83 53	c	143 99 63	s	163 115 73		
4	EOT	4 4 4	DC4	24 20 14	$	44 36 24	4	64 52 34	D	104 68 44	T	124 84 54	d	144 100 64	t	164 116 74		
5	ENQ	5 5 5	NAK	25 21 15	%	45 37 25	5	65 53 35	E	105 69 45	U	125 85 55	e	145 101 65	u	165 117 75		
6	ACK	6 6 6	SYN	26 22 16	&	46 38 26	6	66 54 36	F	106 70 46	V	126 86 56	f	146 102 66	v	166 118 76		
7	BEL	7 7 7	ETB	27 23 17	'	47 39 27	7	67 55 37	G	107 71 47	W	127 87 57	g	147 103 67	w	167 119 77		
8	BS	10 8 8	CAN	30 24 18	(	50 40 28	8	70 56 38	H	110 72 48	X	130 88 58	h	150 104 68	x	170 120 78		
9	HT	11 9 9	EM	31 25 19	)	51 41 29	9	71 57 39	I	111 73 49	Y	131 89 59	i	151 105 69	y	171 121 79		
10	LF	12 10 A	SUB	32 26 1A	*	52 42 2A	:	72 58 3A	J	112 74 4A	Z	132 90 5A	j	152 106 6A	z	172 122 7A		
11	VT	13 11 B	ESC	33 27 1B	+	53 43 2B	;	73 59 3B	K	113 75 4B	[	133 91 5B	k	153 107 6B	{	173 123 7B		
12	FF	14 12 C	FS	34 28 1C	,	54 44 2C	<	74 60 3C	L	114 76 4C	\	134 92 5C	l	154 108 6C	|	174 124 7C		
13	CR	15 13 D	GS	35 29 1D	-	55 45 2D	=	75 61 3D	M	115 77 4D	]	135 93 5D	m	155 109 6D	}	175 125 7D		
14	SO	16 14 E	RS	36 30 1E	.	56 46 2E	>	76 62 3E	N	116 78 4E	^	136 94 5E	n	156 110 6E	~	176 126 7E		
15	SI	17 15 F	US	37 31 1F	/	57 47 2F	?	77 63 3F	O	117 79 4F	_	137 95 5F	o	157 111 6F	DEL	177 127 7F		

ASCII Graphic Character Set

LEGEND

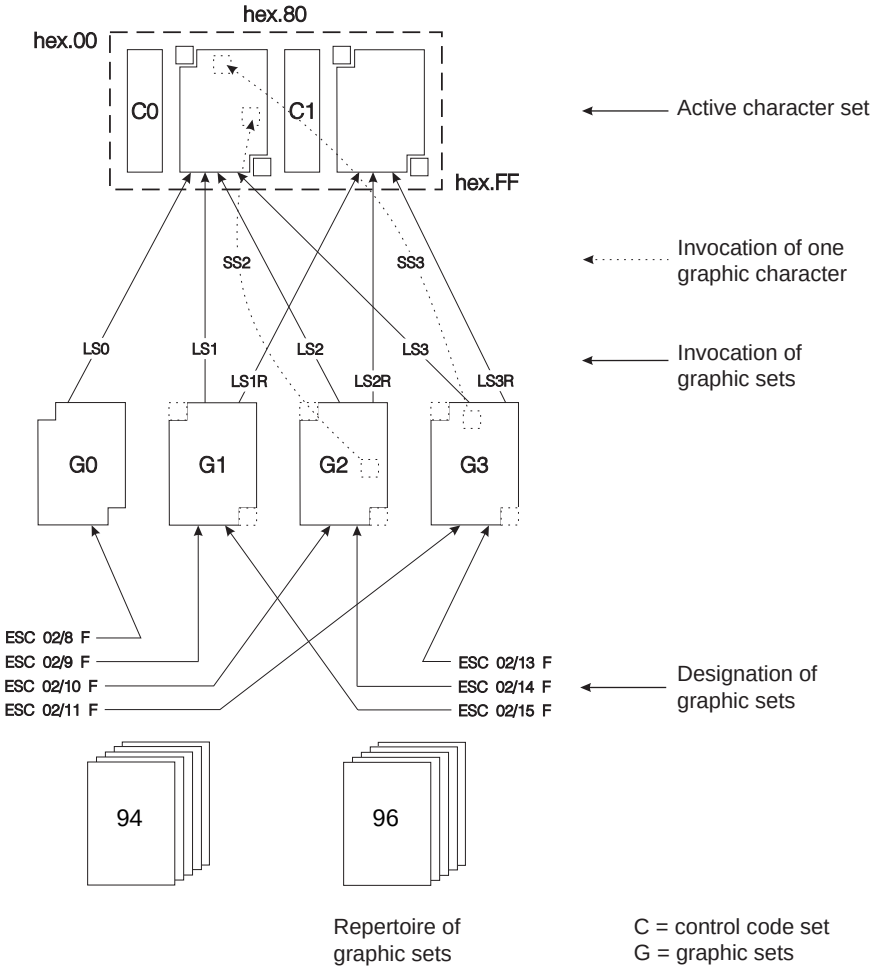
GL	
4/1	Column/Row
A 101 65 41	Octal Decimal Hex

Standard 8-bit Code Table (Right Half)



Designating and Invoking Character Sets

Graphic description of locking shift/single shift



National Replacement Character sets

Location	US	National Replacement Character Sets						
	ASCII	British	DEC Finnish	French	DEC French-Canada	German	ISO Italian	JIS Roman
2/3	#	£		£			£	
4/0	@			à	à	§	§	
5/11	[		Ä	°	â	Ä	º	
5/12	\		Ö	ç	ç	Ö	ç	¥
5/13	]		Å	§	ê	Ü	é	
5/14	^		Ü		î			
6/0	'		é		ô		ù	
7/11	{		ä	é	é	ä	à	
7/12	|		ö	ù	ù	ö	ò	
7/13	}		å	è	è	ü	è	
7/14	~		ü	trema	û	ß	ì	_

National Replacement Character sets (cont.)

Location US National Replacement Character Sets

	ASCII	DEC Norw.-Danish	ISO Spanish	DEC Swedish	Norw.-Danish	DEC Dutch	DEC Swiss	DEC Portuguese
2/3	#		£			£	ù	
4/0	@	Ä	§	É		3/4	à	
5/11	[	Æ	¡	Ä	Æ	ÿ	é	Ã
5/12	\	Ø	Ñ	Ö	Ø	1/2	ç	Ç
5/13	]	Å	¿	Å	Å	|	ê	Õ
5/14	^	Ü		Ü			î	
5/15	_						è	
6/0	'	ä		é			ô	
7/11	{	æ	°	ä	æ	trema	ä	ã
7/12	|	ø	ñ	ö	ø	f	ö	ç
7/13	}	å	ç	å	å	1/4	ü	õ
7/14	~	ü		ü		'	û	

IBM Proprinter Quick Reference

This section describes the printer commands for the IBM Proprinter protocol. Asterisks in the "Function" column indicate extended commands that are not supported by the original printer. See the *Programmer's Reference Manual* for detailed information on using these commands.

Function	Command
Print Mode Control	
Double strike printing on.	ESC G
Double strike printing off.	ESC H
Emphasized printing on.	ESC E
Emphasized printing off.	ESC F
Double width printing (one line) on.	ESC SO
Double width printing (one line) off.	DC4
Double width printing on/off.	ESC W *(n)*
(on: *n*=1, off: *n*=0)	
Double height/double width characters	ESC [@ l h m_1 ... m_4
l = 4, h = 0, m_1 = 0, m_2 = 0 m_3 controls the height and line spacing m_3 Height Spacing 0 Unchanged Unchanged 1 Normal Unchanged 2 Double Unchanged 16 Unchanged Single 17 Normal Single 18 Double Single 32 Unchanged Double 33 Normal Double 34 Double Double	

Function	Command
Print Mode Control (cont.)	
m_4 controls character width: m_4 Width 0 Unchanged 1 Single width 2 Double width	
Compressed printing.	SI or ESC SI
Sets 10 cpi and disables compressed printing.	DC2
Subscript or superscript printing on. (Subscript: *n*=1, superscript: *n*=0)	ESC S *(n)*
Subscript or superscript printing off.	ESC T
Underline on/off (on: *n*=1, off: *n*=0)	ESC -*(n)*
Overscore printing (on: *n*=1, off: *n*=0).	ESC _ *(n)*
Horizontal Control	
Space	SP
Backspace	BS
Carriage return	CR
Sets 12 cpi pitch	ESC :
Proportionally spaced characters on/off (on: *n* = 1, off: *n* = 0)	ESC P (*n*)

Function	Command
Vertical Control	
Line Feed	LF
Form Feed	FF
Advance paper n base units ($1 \leq n \leq 255$) set with the ESC [\ command	ESC J (n)
Set line spacing to 1/8 lines	ESC 0
Set line spacing to 7/72 inch	ESC 1
Set line spacing to n base units ($1 \leq n \leq 255$) set with the ESC [\ command	ESC 3 (n)
Set line spacing to n/180 inch (in AGM) ($1 \leq n \leq 255$)	ESC 3 (*n*)
Preset line spacing to n/72 inch	ESC A (*n*)
Preset line spacing to n/60 inch (in AGM)	ESC A (*n*)
Set line spacing to 1/6 inch or to the value preset by line spacing command ESC A (*n*)	ESC 2
Change graphics line spacing base to 1/216 or 1/180 inch (for ESC J and ESC 3). Default value is 1/216" (1/180" in AG Mode) $m_1 = 4$, $m_2 = 0$, $0 \leq t_1 \leq 255$, $0 \leq t_2 \leq 255$, $t_3 = 0$, $t_4 = 180$ or 216	ESC [\ (m_1)(m_2)(t_1) ... (t_4)

Function	Command
Tabulation	
Horizontal tab execution	HT
Set horizontal tabs	ESC D (t_1) ... (t_{28}) NUL
The values of n_1 to n_k in this command are the ASCII values of the print columns (at the current character width) at which tabs are to be set. ($1 \leq n \leq 255$)	ESC *d* (n_1)(n_2)
Clear all horizontal tabs	ESC D NUL
Move print position right by n/120 inch	ESC d (n_1) (n_2)
($0 \leq n_1, n_2 \leq 255$) ($n = n_1 + n_2$ x 256)	
Vertical tab execution	VT
Set vertical tabs	ESC B (t_1) ... (t_{64}) NUL
Reset tabs to default values	ESC R
Page Formatting	
Set left margin at column n and right margin at column m ($0 \leq n, m \leq 255$)	ESC X (n) (m)
Set perforation skip by n lines ($1 \leq n \leq 255$)	ESC N (n)
Perforation skip off	ESC O
Set page length to n lines ($1 \leq n \leq 255$)	ESC C (n)
Set page length to n inches ($1 \leq n \leq 22$)	ESC C NUL (n)

Function	Command
Color Selection	
Select print color n = 0: Black 1: Magenta (red) 2: Cyan (blue) 3: Violet 4: Yellow 5: Orange 6: Green	ESC r (*n*)
Character Set Control	
Select character set 1.	ESC 7
Select character set 2.	ESC 6
Print $n_1 + n_2$ x 256 characters from all-character set (chars.: codes of characters to print, $0 \leq chars \leq 255$)	ESC \ *(n_1) (n_2) (chars.)*
Print a character from all-character set (char.: a code of character to print, $0 \leq chars \leq 255$)	ESC ^ (char)
Selects a code page table n. ($0 < n_1, n_2 < 255$) ($n = n_1 + n_2$ x 256), ($0 \leq c_1, c_2 < 255$) c_1 c_2 Code Page ID 0 210 Code Page 210 0 220 Code page 220 1 181 Code page 437 3 82 Code page 850 3 84 Code page 852 3 85 Code page 853	ESC [T (n_1) (n_2) 00 (c_1) (c_2)

Function			Command
Character Set Control (cont.)			
c_1	c_2	Code Page ID	
3	87	Code page 855	
3	89	Code page 857	
3	90	Code page 858 (contains the Euro Symbol)	
3	92	Code page 860	
3	93	Code page 861	
3	94	Code page 862	
3	95	Code page 863	
3	96	Code page 864	
3	97	Code page 865	
3	98	Code page 866	
3	101	Code page 869	
33	128	Mazowia	
33	149	ISO 8859-7	
23	27	ISO 8859-15 (contains the Euro Symbol)	
35	79	ISO Latin 1T	
35	59	Code Page 437 Greek	
35	73	ABICOMP	
35	74	BRASCII	
35	76	Code MJK	
35	77	Bulgarian	
Clear one line of data			CAN
Select printer			DC1
Deselect printer (ignore input)			ESC Q #

Function		Command
Downloading		
Select resident or downloaded font		ESC I (*n*)
Resident		Downloaded
0	10 cpi Draft	4
2	10 cpi LQ	6
3	Proportional	7
8	12 cpi Draft	12
10	12 cpi LQ	14
16	17 cpi Draft	20
18	17 cpi LQ	22
Create download font		ESC = (n_1) (n_2) ID (m_1) (m_2) (*data*)
Bit Image Graphics		
Single-density graphics		ESC K (n_1) (n_2) (*data*)
Double density graphics		ESC L (n_1) (n_2) (*data*)
High-speed double density graphics		ESC Y (n_1) (n_2) (*data*)
High resolution graphics		ESC Z (n_1) (n_2) (*data*)
Select graphics mode (in AG mode only)		ESC * (*m*) (c_1) (c_2) (*data*)
High density dot graphics printing		ESC [g (*l*) (*h*) (*m*) (n_1) ... (n_k) *(data*)
Cut Sheet Feeder Control		
Select bin 1		ESC EM 1
Select bin 2		ESC EM 2
Select bin 3		ESC EM 3
Eject single sheet		ESC EM R
Park current path		ESC EM 8
Load current path		ESC EM 9
Select and load Front2 Path		ESC EM B

Function	Command
Miscellaneous	
Select and load Front1 Path	ESC EM F
Select and load ASF bin 1	ESC EM 15
Select and load ASF bin 2	ESC EM 16
Select and load ASF bin 3	ESC EM 17
Sound the bell	BEL
Unidirectional printing on/off (on: *n* = 1, off: *n* = 0)	ESC U (*n*)
Add a line feed to all carriage returns (on: *n*=1, off: *n*=0)	ESC 5 (*n*)
Printer offline	ESC j
Select default settings	ESC [K (n_1) (n_2) (*i*) (*ID*) (p_1) (p_2)

EPSON ESC/P2 Quick Reference

This section describes the printer commands for the Epson ESC/P2 protocol. Asterisks in the "Function" column indicate extended commands that are not supported by the original printer. See the *Programmer's Reference Manual* for detailed information on using these commands.

Function	Command
Print Mode Control	
Double strike printing on.	ESC G
Double strike printing off.	ESC H
Emphasized printing on.	ESC E
Emphasized printing off.	ESC F
Italic printing on.	ESC 4
Italic printing off.	ESC 5
Select character style *n* = 0: Normal 1: Outlined 2: Shaded 3: Outline and shadowed	ESC q (n)
One-line double-width characters on.	SO or ESC SO
One-line double-width characters off.	DC4
Double width characters on/off.	ESC W *(n)*
(on: *n*=1, off: *n*=0)	
Double height characters on/off.	ESC w *(n)*
(on: *n*=1, off: *n*=0)	
Compressed printing.	SI or ESC SI
Compressed printing off.	DC2

Function	Command
Print Mode Control (cont.)	
Subscript or superscript printing on.	ESC S *(n)*
(Subscript: *n*=1, superscript: *n*=0)	
Subscript or superscript printing on.	ESC T
Underline on/off (on: *n*=1, off: *n*=0)	ESC -*(n)*
Select line $n_1 = 3$, $n_2 = 0$, $d_1 = 1$ d_2 = 1: Underline 2: Strikethrough 3: Overscore d_3 = 0: Cancel line selection 1: Single line 2: Double line 5: Single-dotted line 6: Double-dotted line	ESC (- (n_1) (n_2) (d_1) (d_2) (d_3)
Select printing style This command allows you to combine various printing styles. The value of *n* is the sum of the values of the styles you want to combine. n = 0: 10 cpi 1: 12 cpi 2: Proportional spacing 4: Condensed 8: Bold 16: Double height 32: Double width 64: Italics 128: Underline	ESC ! (*n*)

Function	Command
Horizontal Control	
Space	SP
Backspace	BS
Carriage return	CR
Set 12 cpi	ESC M
Set 10 cpi.	ESC P
Set 15 cpi.	ESC g
Proportionally spaced characters on/off (on: $n = 1$, off: $n = 0$)	ESC p (n)
Set inter-character space to n/120 inch (for draft) or n/180 inch (for letter and proportional) ($1 \leq n \leq 127$)	ESC SP (n)
Set character pitch to ($n_1 + n_2$ x 256)/360 inch ($0 \leq n_1 \leq 255$) ($0 \leq n_2 \leq 4$)	ESC c (n_1) (n_2)
Select character pitch (specify unit of pitch)	ESC (U (n_1) (n_2) (d)
$n_1 = 1$, $n_2 = 0$	
d = 10 : 10/3600 inch = 1/360 inch	
d = 20: 20/3600 inch = 1/180 inch	
d = 30: 30/3600 inch = 1/120 inch	
d = 40 : 40/3600 inch = 1/90 inch	
d = 50: 50/3600 inch = 1/72 inch	
d = 60: 60/3600 inch = 1/60 inch	
Vertical Control	
Line Feed	LF
Form Feed	FF

Function	Command
Vertical Control (cont.)	
Advance paper n/180 inch ($1 \leq n \leq 255$)	ESC J (n)
Set line spacing to 1/8 inch	ESC 0
Set line spacing to n/180 inch ($1 \leq n \leq 255$)	ESC 3 (n)
Set line spacing to n/60 inch ($1 \leq n \leq 127$)	ESC A (n)
Set line spacing to 1/6 inch	ESC 2
Set line spacing to 1/360 inch	ESC + (n)
Tabulation	
Horizontal tab execution	HT
Set horizontal tabs. The values of n_1 to n_k in this command are the ASCII values of the print columns (at the current character width) at which tabs are to be set. ($1 \leq n \leq 255$) ($1 \leq k \leq 32$)	ESC D (n_1) ... (n_k) NUL
Move print position right by n/120(*1) inch (for draft) or n/180(*1) inch (for letter) right from left margin (n = n_1 + n_2 x 256)	ESC $ (n_1)(n_2)
Move print position n/120(*1) inch (for draft) or n/180(*1) inch (for letter) left or right from the current position (n = n_1 + n_2 x 256)	ESC \ (n_1)(n_2)
Vertical tab execution	VT
Set vertical tabs. The values of n_1 to n_k in this command are the ASCII values of the print columns (at the current character width) at which tabs are to be set. ($1 \leq n \leq 255$) ($1 \leq k \leq 16$)	ESC B (n_1) ... (n_k) NUL

*1 The value depends on the pitch set by the ESC (U command.
*2 The value depends on the pitch set by the ESC (U command. The default is 1/360 inch.

Function	Command
Tabulation (cont.)	
Move to dot line $(d_1 + d_2 \times 256)/360^{(*2)}$ inch $n_1 = 2$, $n_2 = 0$ $(1 \leq d_1 \leq 255)$ $(1 \leq d_2 \leq 127)$	ESC (V (n_1) (n_2) (d_1) (d_2)
Vertical relative move by $(d_1 + d_2 \times 256)/360^{(*1)}$ inch $n_1 = 2$, $n_2 = 0$ $(1 \leq d_1 \leq 255)$ $(1 \leq d_2 \leq 127)$ $-32768 \leq d_1 + d_2 \times 256 \leq 32768$	ESC (v (n_1) (n_2) (d_1) (d_2)
Page Formatting	
Set right margin to column n $(1 \leq n \leq 255)$	ESC Q (n)
Set left margin to column n $(1 \leq n \leq 255)$	ESC l (n)
Set top and bottom margins from top of page $n_1 = 4$, $n_2 = 0$ Top margin = $(t_1 + t_2 \times 256)/360$(*2) inch $(0 \leq t_1 \leq 255)$ $(1 \leq t_2 \leq 127)$ Bottom margin = $(b_1 + b_2 \times 256)/360$(*2) inch $(0 \leq b_1 \leq 255)$ $(0 \leq b_2 \leq 127)$	ESC (c (n_1) (n_2) (t_1) (t_2) (b_1) (b_2)
Set perforation skip by n lines $(1 \leq n \leq 127)$	ESC N (n)
Perforation skip off	ESC O
Set page length to n inches	ESC C (n)
Reset page length	ESC C NUL (n)
Set page length to $(d_1 + d_2 \times 256)/360$(*1) inch $n_1 = 2$, $n = 0$ $(0 \leq d_1 \leq 255)$ $(0 \leq d_2 \leq 127)$	ESC (C (n_1) (n_2) (d_1) (d_2)

*1 The value depends on the pitch set by the ESC (U command.

*2 The value depends on the pitch set by the ESC (U command. The default is 1/360 inch.

Function	Command
Color Selection	
Select print color *n* = 0: Black 4: Yellow 1: Magenta (red) 5: Orange 2: Cyan (blue) 6: Green 3: Violet	ESC r (*n*)
Character Set Control	
Select character set 1	ESC 7
Select character set 2.	ESC 6
Select the active character set assigned with the ESC t (n) command) ($0 \leq n \leq 3$)	ESC R (*n*)
Select international character set *n* = 0: USA 1: France 2: Germany 3: United Kingdom 4: Denmark I 5: Sweden 6: Italy 7: Spanish I 8: Japan 9: Norway 10: Denmark 2 11: Spanish 2 12: Latin America 13: Korea 64: Legal	ESC R (*n*)

Function	Command
Character Set Control	
Assign a character set to active character set number 0 to 3; $n_1 = 3$, $n_2 = 0$ d_1 = 0: Active character set number 0, default is Italics 1: Active character set number 1, default is Graphics 2: Active character set number 2, default is DLL 3: Active character set number 3, default is Graphics $0 \leq d_2, d_3 < 255$ d_2 = d_3 = 1 0 PC437 (USA) 1 16 PC437 (Greek) 3 0 PC850 (Multilingual) 4 0 PC851 (Greek) 5 0 PC853 (Turkish) 6 0 PC855 (Cyrillic) 7 0 PC860 (Portuguese) 8 0 PC863 (French Canadian) 9 0 PC865 (Nordic) 10 0 PC852 (Eastern Europe) 11 0 PC857 (Turkish) 13 0 PC864 (Arabic) 14 0 PC866 (Russian) 15 0 PC869 (Greek) 24 0 PC861 (Icelandic) 25 0 Brazilian ASCII	ESC (t (n_1)(n_2)(d_1)(d_2)(d_3)

Function			Command
Character Set Control			
d_2 =	d_3 =		
26	0	Abicomp (Brazilian portuguese)	
27	0	Mazowia (Polish)	
28	0	Code MJK (CSFR)	
29	7	ISO 8859-7 (Latin Greek)	
29	15	ISO 8859-15 – contains the Euro symbol	
31	0	ISO Latin 1T (Turkish)	
32	0	Bulgarian	
44	0	PC858 (Euro PC Multilingual) – contains the Euro symbol	
Print $n_1 + n_2$ x 256 characters from all-character set (chars.: codes of characters to print, ($0 \leq n_1 \leq 255$) ($0 \leq n_2 \leq 127$) ($0 \leq n_1 + n_2$ x $256 \leq 255$) ($0 \leq$ character codes ≤ 254)			ESC (^ *(n_1) (n_2)* (*character codes*)
Delete last line			CAN
Delete the last character			DEL
Force most significant bit to 1			ESC >
Force most significant bit to 0			ESC =
Cancel control over most significant bit			ESC #
Font Selection and Downloading			
Select font			ESC % (*n*)
Ex. *n* =	0:	Resident	
	1:	Downloaded character set	
Select letter or draft quality			ESC x (*n*)
Ex. *n* =	0:	Draft	

Function	Command
Font Selection and Downloading (cont.)	
Select type style *n* = 0: Roman 1: Sans Serif 2: Courier 3: Prestige 4: Script 5: OCR-B 7: Orator 8: not supported 9: not supported	ESC k (*n*)
Copy resident character set to download area	ESC : NUL (*n*) (*s*)
Create download font	ESC & NUL (n_1) (n_2) (d_0) (d_1) (d_2) (*data*)
Bit Image Graphics	
Graphics type m graphics	ESC * (*m*) (n_1) (n_2) (data)
Bit image mode definition	ESC ? (*s*) (*n*)
Single-density graphics	ESC K (n_1) (n_2) (*data*)
Double density graphics	ESC L (n_1) (n_2) (*data*)
High-speed double density graphics	ESC Y (n_1) (n_2) (*data*)
Quadruple-density graphics	ESC Z (n_1) (n_2) (*data*)
Select raster image graphics n_1 = 1, n_2 = 0, *d* = 1: Raster image graphics mode	ESC (G (n_1) (n_2) (*d*)

Function	Function
Cut Sheet Feeder Control	
Select bin 1	ESC EM 1
Select bin 2	ESC EM 2
Select bin 3	ESC EM 3
Park current path	ESC EM 8
Load current path	ESC EM 9
Select and load Front2 Path	ESC EM B
Select and load Front1 Path	ESC EM F
Select and load ASF bin 1	ESC EM 15
Select and load ASF bin 2	ESC EM 16
Select and load ASF bin 3	ESC EM 17
Miscellaneous	
Sound the bell	BEL
Move print head to home position	ESC <
Unidirectional printing on/off (on: *n* = 1, off: *n* = 0)	ESC U (*n*)
Initialize printer	ESC @

Character Sets

DEC Character Set Tables

Legal

		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR	
	Column	2	10		3	11		4	12		5	13		6	14		7	15	
Row 0				0	60 48 30	260 176 B0	@	100 64 40	300 192 C0	P	120 80 50	320 208 D0	=	140 96 60	340 224 E0	p	160 112 70	360 240 F0	Row 0
1	!	41 33 21	241 161 A1	1	61 49 31	261 177 B1	A	101 65 41	301 193 C1	Q	121 81 51	321 209 D1	a	141 97 61	341 225 E1	q	161 113 71	361 241 F1	1
2	"	42 34 22	242 162 A2	2	62 50 32	262 178 B2	B	102 66 42	302 194 C2	R	122 82 52	322 210 D2	b	142 98 62	342 226 E2	r	162 114 72	362 242 F2	2
3	#	43 35 23	243 163 A3	3	63 51 33	263 179 B3	C	103 67 43	303 195 C3	S	123 83 53	323 211 D3	c	143 99 63	343 227 E3	s	163 115 73	363 243 F3	3
4	$	44 36 24	244 164 A4	4	64 52 34	264 180 B4	D	104 68 44	304 196 C4	T	124 84 54	324 212 D4	d	144 100 64	344 228 E4	t	164 116 74	364 244 F4	4
5	%	45 37 25	245 165 A5	5	65 53 35	265 181 B5	E	105 69 45	305 197 C5	U	125 85 55	325 213 D5	e	145 101 65	345 229 E5	u	165 117 75	365 245 F5	5
6	&	46 38 26	246 166 A6	6	66 54 36	266 182 B6	F	106 70 46	306 198 C6	V	126 86 56	326 214 D6	f	146 102 66	346 230 E6	v	166 118 76	366 246 F6	6
7	'	47 39 27	247 167 A7	7	67 55 37	267 183 B7	G	107 71 47	307 199 C7	W	127 87 57	327 215 D7	g	147 103 67	347 231 E7	w	167 119 77	367 247 F7	7
8	(	50 40 28	250 168 A8	8	70 56 38	270 184 B8	H	110 72 48	310 200 C8	X	130 88 58	330 216 D8	h	150 104 68	350 232 E8	x	170 120 78	370 248 F8	8
9	)	51 41 29	251 169 A9	9	71 57 39	271 185 B9	I	111 73 49	311 201 C9	Y	131 89 59	331 217 D9	i	151 105 69	351 233 E9	y	171 121 79	371 249 F9	9
10	*	52 42 2A	252 170 AA	:	72 58 3A	272 186 BA	J	112 74 4A	312 202 CA	Z	132 90 5A	332 218 DA	j	152 106 6A	352 234 EA	z	172 122 7A	372 250 FA	10
11	+	53 43 2B	253 171 AB	;	73 59 3B	273 187 BB	K	113 75 4B	313 203 CB	[	133 91 5B	333 219 DB	k	153 107 6B	353 235 EB	§	173 123 7B	373 251 FB	11
12	,	54 44 2C	254 172 AC	<	74 60 3C	274 188 BC	L	114 76 4C	314 204 CC	®	134 92 5C	334 220 DC	l	154 108 6C	354 236 EC	¶	174 124 7C	374 252 FC	12
13	-	55 45 2D	255 173 AD	=	75 61 3D	275 189 BD	M	115 77 4D	315 205 CD	]	135 93 5D	335 221 DD	m	155 109 6D	355 237 ED	†	175 125 7D	375 253 FD	13
14	.	56 46 2E	256 174 AE	>	76 62 3E	276 190 BE	N	116 78 4E	316 206 CE	©	136 94 5E	336 222 DE	n	156 110 6E	356 238 EE	™	176 126 7E	376 254 FE	14
15	/	57 47 2F	257 175 AF	?	77 63 3F	277 191 BF	O	117 79 4F	317 207 CF	—	137 95 5F	337 223 DF	o	157 111 6F	357 239 EF				15

LEGEND

	GL	GR	
	4/1	12/1	Column/Row
A	101 65 41	301 193 C1	Octal Decimal Hex

JIS Katakana Character Set

		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR	
	Column	2	10		3	11		4	12		5	13		6	14		7	15	
Row 0				ー	60 48 30	260 176 B0	タ	100 64 40	300 192 C0	ミ	120 80 50	320 208 D0		140 96 60	340 224 E0		160 112 70	360 240 F0	Row 0
1	。	41 33 21	241 161 A1	ア	61 49 31	261 177 B1	チ	101 65 41	301 193 C1	ム	121 81 51	321 209 D1		141 97 61	341 225 E1		161 113 71	361 241 F1	1
2	「	42 34 22	242 162 A2	イ	62 50 32	262 178 B2	ツ	102 66 42	302 194 C2	メ	122 82 52	322 210 D2		142 98 62	342 226 E2		162 114 72	362 242 F2	2
3	」	43 35 23	243 163 A3	ウ	63 51 33	263 179 B3	テ	103 67 43	303 195 C3	モ	123 83 53	323 211 D3		143 99 63	343 227 E3		163 115 73	363 243 F3	3
4	、	44 36 24	244 164 A4	エ	64 52 34	264 180 B4	ト	104 68 44	304 196 C4	ヤ	124 84 54	324 212 D4		144 100 64	344 228 E4		164 116 74	364 244 F4	4
5	・	45 37 25	245 165 A5	オ	65 53 35	265 181 B5	ナ	105 69 45	305 197 C5	ユ	125 85 55	325 213 D5		145 101 65	345 229 E5		165 117 75	365 245 F5	5
6	ヲ	46 38 26	246 166 A6	カ	66 54 36	266 182 B6	ニ	106 70 46	306 198 C6	ヨ	126 86 56	326 214 D6		146 102 66	346 230 E6		166 118 76	366 246 F6	6
7	ァ	47 39 27	247 167 A7	キ	67 55 37	267 183 B7	ヌ	107 71 47	307 199 C7	ラ	127 87 57	327 215 D7		147 103 67	347 231 E7		167 119 77	367 247 F7	7
8	ィ	50 40 28	250 168 A8	ク	70 56 38	270 184 B8	ネ	110 72 48	310 200 C8	リ	130 88 58	330 216 D8		150 104 68	350 232 E8		170 120 78	370 248 F8	8
9	ゥ	51 41 29	251 169 A9	ケ	71 57 39	271 185 B9	ノ	111 73 49	311 201 C9	ル	131 89 59	331 217 D9		151 105 69	351 233 E9		171 121 79	371 249 F9	9
10	ェ	52 42 2A	252 170 AA	コ	72 58 3A	272 186 BA	ハ	112 74 4A	312 202 CA	レ	132 90 5A	332 218 DA		152 106 6A	352 234 EA		172 122 7A	372 250 FA	10
11	ォ	53 43 2B	253 171 AB	サ	73 59 3B	273 187 BB	ヒ	113 75 4B	313 203 CB	ロ	133 91 5B	333 219 DB		153 107 6B	353 235 EB		173 123 7B	373 251 FB	11
12	ャ	54 44 2C	254 172 AC	シ	74 60 3C	274 188 BC	フ	114 76 4C	314 204 CC	ワ	134 92 5C	334 220 DC		154 108 6C	354 236 EC		174 124 7C	374 252 FC	12
13	ュ	55 45 2D	255 173 AD	ス	75 61 3D	275 189 BD	ヘ	115 77 4D	315 205 CD	ン	135 93 5D	335 221 DD		155 109 6D	355 237 ED		175 125 7D	375 253 FD	13
14	ョ	56 46 2E	256 174 AE	セ	76 62 3E	276 190 BE	ホ	116 78 4E	316 206 CE	゛	136 94 5E	336 222 DE		156 110 6E	356 238 EE		176 126 7E	376 254 FE	14
15	ッ	57 47 2F	257 175 AF	ソ	77 63 3F	277 191 BF	マ	117 79 4F	317 207 CF	゜	137 95 5F	337 223 DF		157 111 6F	357 239 EF				15

LEGEND

	GL	GR	
	4/1	12/1	Column/Row
チ	101 65 41	301 193 C1	Octal Decimal Hex

DEC Special Graphics Character Set

		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR	
	Column	2	10		3	11		4	12		5	13		6	14		7	15	
Row 0				0	60 48 30	260 176 B0	@	100 64 40	300 192 C0	P	120 80 50	320 208 D0	♦	140 96 60	340 224 E0	— SCAN 3	160 112 70	360 240 F0	Row 0
1	I	41 33 21	241 161 A1	1	61 49 31	261 177 B1	A	101 65 41	301 193 C1	Q	121 81 51	321 209 D1	▒	141 97 61	341 225 E1	— SCAN 5	161 113 71	361 241 F1	1
2	"	42 34 22	242 162 A2	2	62 50 32	262 178 B2	B	102 66 42	302 194 C2	R	122 82 52	322 210 D2	HT	142 98 62	342 226 E2	— SCAN 7	162 114 72	362 242 F2	2
3	#	43 35 23	243 163 A3	3	63 51 33	263 179 B3	C	103 67 43	303 195 C3	S	123 83 53	323 211 D3	FF	143 99 63	343 227 E3	SCAN 9	163 115 73	363 243 F3	3
4	$	44 36 24	244 164 A4	4	64 52 34	264 180 B4	D	104 68 44	304 196 C4	T	124 84 54	324 212 D4	CR	144 100 64	344 228 E4	├	164 116 74	364 244 F4	4
5	%	45 37 25	245 165 A5	5	65 53 35	265 181 B5	E	105 69 45	305 197 C5	U	125 85 55	325 213 D5	LF	145 101 65	345 229 E5	┤	165 117 75	365 245 F5	5
6	&	46 38 26	246 166 A6	6	66 54 36	266 182 B6	F	106 70 46	306 198 C6	V	126 86 56	326 214 D6	°	146 102 66	346 230 E6	┴	166 118 76	366 246 F6	6
7	'	47 39 27	247 167 A7	7	67 55 37	267 183 B7	G	107 71 47	307 199 C7	W	127 87 57	327 215 D7	±	147 103 67	347 231 E7	┬	167 119 77	367 247 F7	7
8	(	50 40 28	250 168 A8	8	70 56 38	270 184 B8	H	110 72 48	310 200 C8	X	130 88 58	330 216 D8	NL	150 104 68	350 232 E8	│	170 120 78	370 248 F8	8
9	)	51 41 29	251 169 A9	9	71 57 39	271 185 B9	I	111 73 49	311 201 C9	Y	131 89 59	331 217 D9	VT	151 105 69	351 233 E9	≤	171 121 79	371 249 F9	9
10	*	52 42 2A	252 170 AA	:	72 58 3A	272 186 BA	J	112 74 4A	312 202 CA	Z	132 90 5A	332 218 DA	┘	152 106 6A	352 234 EA	≥	172 122 7A	372 250 FA	10
11	+	53 43 2B	253 171 AB	;	73 59 3B	273 187 BB	K	113 75 4B	313 203 CB	[	133 91 5B	333 219 DB	┐	153 107 6B	353 235 EB	π	173 123 7B	373 251 FB	11
12	,	54 44 2C	254 172 AC	<	74 60 3C	274 188 BC	L	114 76 4C	314 204 CC	\	134 92 5C	334 220 DC	┌	154 108 6C	354 236 EC	≠	174 124 7C	374 252 FC	12
13	-	55 45 2D	255 173 AD	=	75 61 3D	275 189 BD	M	115 77 4D	315 205 CD	]	135 93 5D	335 221 DD	└	155 109 6D	355 237 ED	£	175 125 7D	375 253 FD	13
14	.	56 46 2E	256 174 AE	>	76 62 3E	276 190 BE	N	116 78 4E	316 206 CE	^	136 94 5E	336 222 DE	┼	156 110 6E	356 238 EE	·	176 126 7E	376 254 FE	14
15	/	57 47 2F	257 175 AF	?	77 63 3F	277 191 BF	O	117 79 4F	317 207 CF		137 95 5F	337 223 DF	— SCAN 1	157 111 6F	357 239 EF				15

LEGEND

	GL	GR	
	4/1	12/1	Column/Row
A	101 65 41	301 193 C1	Octal Decimal Hex

DEC Technical Character Set

Row	Column	GL 2	GR 10		GL 3	GR 11		GL 4	GR 12		GL 5	GR 13		GL 6	GR 14		GL 7	GR 15	Row
0				⎫	60 48 30	260 176 B0	∴	100 64 40	300 192 C0	Π	120 80 50	320 208 D0	¬	140 96 60	340 224 E0	π	160 112 70	360 240 F0	0
1	√	41 33 21	241 161 A1	⎧	61 49 31	261 177 B1	∝	101 65 41	301 193 C1	Ψ	121 81 51	321 209 D1	α	141 97 61	341 225 E1	ψ	161 113 71	361 241 F1	1
2	⌐	42 34 22	242 162 A2	⎨	62 50 32	262 178 B2	∞	102 66 42	302 194 C2		122 82 52	322 210 D2	β	142 98 62	342 226 E2	ρ	162 114 72	362 242 F2	2
3	⎯	43 35 23	243 163 A3	⎩	63 51 33	263 179 B3	÷	103 67 43	303 195 C3	Σ	123 83 53	323 211 D3	χ	143 99 63	343 227 E3	σ	163 115 73	363 243 F3	3
4	⌠	44 36 24	244 164 A4	⎪	64 52 34	264 180 B4	△	104 68 44	304 196 C4		124 84 54	324 212 D4	δ	144 100 64	344 228 E4	τ	164 116 74	364 244 F4	4
5	⌡	45 37 25	245 165 A5	⎪	65 53 35	265 181 B5	▽	105 69 45	305 197 C5		125 85 55	325 213 D5	ε	145 101 65	345 229 E5		165 117 75	365 245 F5	5
6	⎮	46 38 26	246 166 A6	⎪	66 54 36	266 182 B6	Φ	106 70 46	306 198 C6	√	126 86 56	326 214 D6	φ	146 102 66	346 230 E6	ƒ	166 118 76	366 246 F6	6
7	⌠	47 39 27	247 167 A7	⎭	67 55 37	267 183 B7	Γ	107 71 47	307 199 C7	Ω	127 87 57	327 215 D7	γ	147 103 67	347 231 E7	ω	167 119 77	367 247 F7	7
8	⌡	50 40 28	250 168 A8		70 56 38	270 184 B8	~	110 72 48	310 200 C8	Ξ	130 88 58	330 216 D8	η	150 104 68	350 232 E8	ξ	170 120 78	370 248 F8	8
9	⌉	51 41 29	251 169 A9		71 57 39	271 185 B9	≃	111 73 49	311 201 C9	ϒ	131 89 59	331 217 D9	ι	151 105 69	351 233 E9	υ	171 121 79	371 249 F9	9
10	⌋	52 42 2A	252 170 AA		72 58 3A	272 186 BA	Θ	112 74 4A	312 202 CA	⊂	132 90 5A	332 218 DA	θ	152 106 6A	352 234 EA	ζ	172 122 7A	372 250 FA	10
11	⌠	53 43 2B	253 171 AB		73 59 3B	273 187 BB	×	113 75 4B	313 203 CB	⊃	133 91 5B	333 219 DB	κ	153 107 6B	353 235 EB	←	173 123 7B	373 251 FB	11
12	⌡	54 44 2C	254 172 AC	≤	74 60 3C	274 188 BC	Λ	114 76 4C	314 204 CC	∩	134 92 5C	334 220 DC	λ	154 108 6C	354 236 EC	↑	174 124 7C	374 252 FC	12
13	⌉	55 45 2D	255 173 AD	≠	75 61 3D	275 189 BD	⇔	115 77 4D	315 205 CD	∪	135 93 5D	335 221 DD		155 109 6D	355 237 ED	→	175 125 7D	375 253 FD	13
14	⌋	56 46 2E	256 174 AE	≥	76 62 3E	276 190 BE	⇒	116 78 4E	316 206 CE	∧	136 94 5E	336 222 DE	ν	156 110 6E	356 238 EE	↓	176 126 7E	376 254 FE	14
15	⎨	57 47 2F	257 175 AF	∫	77 63 3F	277 191 BF	≡	117 79 4F	317 207 CF	∨	137 95 5F	337 223 DF	∂	157 111 6F	357 239 EF				15

LEGEND

	GL 4/1	GR 12/1	
∝	101 65 41	301 193 C1	Column/Row Octal Decimal Hex

ISO Latin-1 Supplemental Character Set

		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR	
	Column	2	10		3	11		4	12		5	13		6	14		7	15	
Row 0	NBSP		240 160 A0	º		260 176 B0	À		300 192 C0	Ð		320 208 D0	à		340 224 E0	ð		360 240 F0	Row 0
1	¡		241 161 A1	±		261 177 B1	Á		301 193 C1	Ñ		321 209 D1	á		341 225 E1	ñ		361 241 F1	1
2	¢		242 162 A2	2		262 178 B2	Â		302 194 C2	Ò		322 210 D2	â		342 226 E2	ò		362 242 F2	2
3	£		243 163 A3	3		263 179 B3	Ã		303 195 C3	Ó		323 211 D3	ã		343 227 E3	ó		363 243 F3	3
4	¤		244 164 A4	´		264 180 B4	Ä		304 196 C4	Ô		324 212 D4	ä		344 228 E4	ô		364 244 F4	4
5	¥		245 165 A5	µ		265 181 B5	Å		305 197 C5	Õ		325 213 D5	å		345 229 E5	õ		365 245 F5	5
6	¦		246 166 A6	¶		266 182 B6	Æ		306 198 C6	Ö		326 214 D6	æ		346 230 E6	ö		366 246 F6	6
7	§		247 167 A7	·		267 183 B7	Ç		307 199 C7	×		327 215 D7	ç		347 231 E7	÷		367 247 F7	7
8	¨		250 168 A8	¸		270 184 B8	È		310 200 C8	Ø		330 216 D8	è		350 232 E8	ø		370 248 F8	8
9	©		251 169 A9	1		271 185 B9	É		311 201 C9	Ù		331 217 D9	é		351 233 E9	ù		371 249 F9	9
10	ª		252 170 AA	º		272 186 BA	Ê		312 202 CA	Ú		332 218 DA	ê		352 234 EA	ú		372 250 FA	10
11	«		253 171 AB	»		273 187 BB	Ë		313 203 CB	Û		333 219 DB	ë		353 235 EB	û		373 251 FB	11
12	¬		254 172 AC	¼		274 188 BC	Ì		314 204 CC	Ü		334 220 DC	ì		354 236 EC	ü		374 252 FC	12
13	-		255 173 AD	½		275 189 BD	Í		315 205 CD	Ý		335 221 DD	í		355 237 ED	ý		375 253 FD	13
14	®		256 174 AE	¾		276 190 BE	Î		316 206 CE	Þ		336 222 DE	î		356 238 EE	þ		376 254 FE	14
15	¯		257 175 AF	¿		277 191 BF	Ï		317 207 CF	ß		337 223 DF	ï		357 239 EF	ÿ		377 255 FF	15

LEGEND

	GR
	12/1 Column/Row
Á	301 Octal 193 Decimal C1 Hex

DEC Hebrew Supplemental Character Set

		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR	
	Column	2	10		3	11		4	12		5	13		6	14		7	15	
Row 0				°	60 48 30	260 176 B0		100 64 40	300 192 C0		120 80 50	320 208 D0	א	140 96 60	340 224 E0	ן	160 112 70	360 240 F0	Row 0
1	¡	41 33 21	241 161 A1	±	61 49 31	261 177 B1		101 65 41	301 193 C1		121 81 51	321 209 D1	ב	141 97 61	341 225 E1	ס	161 113 71	361 241 F1	1
2	¢	42 34 22	242 162 A2	2	62 50 32	262 178 B2		102 66 42	302 194 C2		122 82 52	322 210 D2	ג	142 98 62	342 226 E2	ע	162 114 72	362 242 F2	2
3	£	43 35 23	243 163 A3	3	63 51 33	263 179 B3		103 67 43	303 195 C3		123 83 53	323 211 D3	ד	143 99 63	343 227 E3	ף	163 115 73	363 243 F3	3
4		44 36 24	244 164 A4		64 52 34	264 180 B4		104 68 44	304 196 C4		124 84 54	324 212 D4	ה	144 100 64	344 228 E4	פ	164 116 74	364 244 F4	4
5	¥	45 37 25	245 165 A5	µ	65 53 35	265 181 B5		105 69 45	305 197 C5		125 85 55	325 213 D5	ו	145 101 65	345 229 E5	ץ	165 117 75	365 245 F5	5
6		46 38 26	246 166 A6	¶	66 54 36	266 182 B6		106 70 46	306 198 C6		126 86 56	326 214 D6	ז	146 102 66	346 230 E6	צ	166 118 76	366 246 F6	6
7	§	47 39 27	247 167 A7	·	67 55 37	267 183 B7		107 71 47	307 199 C7		127 87 57	327 215 D7	ח	147 103 67	347 231 E7	ק	167 119 77	367 247 F7	7
8	¤	50 40 28	250 168 A8		70 56 38	270 184 B8		110 72 48	310 200 C8		130 88 58	330 216 D8	ט	150 104 68	350 232 E8	ר	170 120 78	370 248 F8	8
9	©	51 41 29	251 169 A9	1	71 57 39	271 185 B9		111 73 49	311 201 C9		131 89 59	331 217 D9	י	151 105 69	351 233 E9	ש	171 121 79	371 249 F9	9
10	ª	52 42 2A	252 170 AA	º	72 58 3A	272 186 BA		112 74 4A	312 202 CA		132 90 5A	332 218 DA	ך	152 106 6A	352 234 EA	ת	172 122 7A	372 250 FA	10
11	«	53 43 2B	253 171 AB	»	73 59 3B	273 187 BB		113 75 4B	313 203 CB		133 91 5B	333 219 DB	כ	153 107 6B	353 235 EB		173 123 7B	373 251 FB	11
12		54 44 2C	254 172 AC	¼	74 60 3C	274 188 BC		114 76 4C	314 204 CC		134 92 5C	334 220 DC	ל	154 108 6C	354 236 EC		174 124 7C	374 252 FC	12
13		55 45 2D	255 173 AD	½	75 61 3D	275 189 BD		115 77 4D	315 205 CD		135 93 5D	335 221 DD	ם	155 109 6D	355 237 ED		175 125 7D	375 253 FD	13
14		56 46 2E	256 174 AE		76 62 3E	276 190 BE		116 78 4E	316 206 CE		136 94 5E	336 222 DE	ם	156 110 6E	356 238 EE		176 126 7E	376 254 FE	14
15		57 47 2F	257 175 AF	¿	77 63 3F	277 191 BF		117 79 4F	317 207 CF		137 95 5F	337 223 DF	ן	157 111 6F	357 239 EF				15

LEGEND

GL	GR	
4/1	12/1	Column/Row
101 65 41	301 193 C1	Octal Decimal Hex

ISO Latin-Hebrew Supplemental Character Set

		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR	
	Column	2	10		3	11		4	12		5	13		6	14		7	15	
Row 0	NBSP		240 160 A0	°		260 176 B0			300 192 C0			320 208 D0	א		340 224 E0	ן		360 240 F0	Row 0
1			241 161 A1	±		261 177 B1			301 193 C1			321 209 D1	ב		341 225 E1	ס		361 241 F1	1
2	¢		242 162 A2	2		262 178 B2			302 194 C2			322 210 D2	ג		342 226 E2	ע		362 242 F2	2
3	£		243 163 A3	3		263 179 B3			303 195 C3			323 211 D3	ד		343 227 E3	ף		363 243 F3	3
4	¤		244 164 A4	´		264 180 B4			304 196 C4			324 212 D4	ה		344 228 E4	פ		364 244 F4	4
5	¥		245 165 A5	µ		265 181 B5			305 197 C5			325 213 D5	ו		345 229 E5	ץ		365 245 F5	5
6	¦		246 166 A6	¶		266 182 B6			306 198 C6			326 214 D6	ז		346 230 E6	צ		366 246 F6	6
7	§		247 167 A7	·		267 183 B7			307 199 C7			327 215 D7	ח		347 231 E7	ק		367 247 F7	7
8	¨		250 168 A8	¸		270 184 B8			310 200 C8			330 216 D8	ט		350 232 E8	ר		370 248 F8	8
9	©		251 169 A9	1		271 185 B9			311 201 C9			331 217 D9	י		351 233 E9	ש		371 249 F9	9
10	×		252 170 AA	÷		272 186 BA			312 202 CA			332 218 DA	ך		352 234 EA	ת		372 250 FA	10
11	«		253 171 AB	»		273 187 BB			313 203 CB			333 219 DB	כ		353 235 EB			373 251 FB	11
12	¬		254 172 AC	¼		274 188 BC			314 204 CC			334 220 DC	ל		354 236 EC			374 252 FC	12
13	-		255 173 AD	½		275 189 BD			315 205 CD			335 221 DD	ם		355 237 ED			375 253 FD	13
14	®		256 174 AE	¾		276 190 BE			316 206 CE			336 222 DE	מ		356 238 EE			376 254 FE	14
15	¯		257 175 AF			277 191 BF			317 207 CF	=		337 223 DF	ן		357 239 EF			377 255 FF	15

LEGEND

GR	
12/1	Column/Row
301 193 C1	Octal Decimal Hex

DEC 7-Bit Turkish Character Set

Row		GL 2	GR 10		GL 3	GR 11		GL 4	GR 12		GL 5	GR 13		GL 6	GR 14		GL 7	GR 15	Row
0				0	60 48 30	260 176 B0	İ	100 64 40	300 192 C0	P	120 80 50	320 208 D0	˘G	140 96 60	340 224 E0	p	160 112 70	360 240 F0	0
1	ı	41 33 21	241 161 A1	1	61 49 31	261 177 B1	A	101 65 41	301 193 C1	Q	121 81 51	321 209 D1	a	141 97 61	341 225 E1	q	161 113 71	361 241 F1	1
2	"	42 34 22	242 162 A2	2	62 50 32	262 178 B2	B	102 66 42	302 194 C2	R	122 82 52	322 210 D2	b	142 98 62	342 226 E2	r	162 114 72	362 242 F2	2
3	#	43 35 23	243 163 A3	3	63 51 33	263 179 B3	C	103 67 43	303 195 C3	S	123 83 53	323 211 D3	c	143 99 63	343 227 E3	s	163 115 73	363 243 F3	3
4	$	44 36 24	244 164 A4	4	64 52 34	264 180 B4	D	104 68 44	304 196 C4	T	124 84 54	324 212 D4	d	144 100 64	344 228 E4	t	164 116 74	364 244 F4	4
5	%	45 37 25	245 165 A5	5	65 53 35	265 181 B5	E	105 69 45	305 197 C5	U	125 85 55	325 213 D5	e	145 101 65	345 229 E5	u	165 117 75	365 245 F5	5
6	ğ	46 38 26	246 166 A6	6	66 54 36	266 182 B6	F	106 70 46	306 198 C6	V	126 86 56	326 214 D6	f	146 102 66	346 230 E6	v	166 118 76	366 246 F6	6
7	'	47 39 27	247 167 A7	7	67 55 37	267 183 B7	G	107 71 47	307 199 C7	W	127 87 57	327 215 D7	g	147 103 67	347 231 E7	w	167 119 77	367 247 F7	7
8	(	50 40 28	250 168 A8	8	70 56 38	270 184 B8	H	110 72 48	310 200 C8	X	130 88 58	330 216 D8	h	150 104 68	350 232 E8	x	170 120 78	370 248 F8	8
9	)	51 41 29	251 169 A9	9	71 57 39	271 185 B9	I	111 73 49	311 201 C9	Y	131 89 59	331 217 D9	i	151 105 69	351 233 E9	y	171 121 79	371 249 F9	9
10	*	52 42 2A	252 170 AA	:	72 58 3A	272 186 BA	J	112 74 4A	312 202 CA	Z	132 90 5A	332 218 DA	j	152 106 6A	352 234 EA	z	172 122 7A	372 250 FA	10
11	+	53 43 2B	253 171 AB	;	73 59 3B	273 187 BB	K	113 75 4B	313 203 CB	Ş	133 91 5B	333 219 DB	k	153 107 6B	353 235 EB	ş	173 123 7B	373 251 FB	11
12	,	54 44 2C	254 172 AC	<	74 60 3C	274 188 BC	L	114 76 4C	314 204 CC	Ö	134 92 5C	334 220 DC	l	154 108 6C	354 236 EC	ö	174 124 7C	374 252 FC	12
13	−	55 45 2D	255 173 AD	=	75 61 3D	275 189 BD	M	115 77 4D	315 205 CD	Ç	135 93 5D	335 221 DD	m	155 109 6D	355 237 ED	ç	175 125 7D	375 253 FD	13
14	.	56 46 2E	256 174 AE	>	76 62 3E	276 190 BE	N	116 78 4E	316 206 CE	Ü	136 94 5E	336 222 DE	n	156 110 6E	356 238 EE	ü	176 126 7E	376 254 FE	14
15	/	57 47 2F	257 175 AF	?	77 63 3F	277 191 BF	O	117 79 4F	317 207 CF	—	137 95 5F	337 223 DF	o	157 111 6F	357 239 EF				15

LEGEND

	GL	GR	
	4/1	12/1	Column/Row
A	101 65 41	301 193 C1	Octal Decimal Hex

DEC 8-Bit Turkish Supplemental Character Set

		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR	
	Column	2	10		3	11		4	12		5	13		6	14		7	15	
Row 0				°	60 48 30	260 176 B0	À	100 64 40	300 192 C0	Ğ	120 80 50	320 208 D0	à	140 96 60	340 224 E0	ğ	160 112 70	360 240 F0	Row 0
1	¡	41 33 21	241 161 A1	±	61 49 31	261 177 B1	Á	101 65 41	301 193 C1	Ñ	121 81 51	321 209 D1	á	141 97 61	341 225 E1	ñ	161 113 71	361 241 F1	1
2	¢	42 34 22	242 162 A2	2	62 50 32	262 178 B2	Â	102 66 42	302 194 C2	Ò	122 82 52	322 210 D2	â	142 98 62	342 226 E2	ò	162 114 72	362 242 F2	2
3	£	43 35 23	243 163 A3	3	63 51 33	263 179 B3	Ã	103 67 43	303 195 C3	Ó	123 83 53	323 211 D3	ã	143 99 63	343 227 E3	ó	163 115 73	363 243 F3	3
4		44 36 24	244 164 A4		64 52 34	264 180 B4	Ä	104 68 44	304 196 C4	Ô	124 84 54	324 212 D4	ä	144 100 64	344 228 E4	ô	164 116 74	364 244 F4	4
5	¥	45 37 25	245 165 A5	µ	65 53 35	265 181 B5	Å	105 69 45	305 197 C5	Õ	125 85 55	325 213 D5	å	145 101 65	345 229 E5	õ	165 117 75	365 245 F5	5
6		46 38 26	246 166 A6	¶	66 54 36	266 182 B6	Æ	106 70 46	306 198 C6	Ö	126 86 56	326 214 D6	æ	146 102 66	346 230 E6	ö	166 118 76	366 246 F6	6
7	§	47 39 27	247 167 A7	·	67 55 37	267 183 B7	Ç	107 71 47	307 199 C7	Œ	127 87 57	327 215 D7	ç	147 103 67	347 231 E7	œ	167 119 77	367 247 F7	7
8	¤	50 40 28	250 168 A8		70 56 38	270 184 B8	È	110 72 48	310 200 C8	Ø	130 88 58	330 216 D8	è	150 104 68	350 232 E8	ø	170 120 78	370 248 F8	8
9	©	51 41 29	251 169 A9	1	71 57 39	271 185 B9	É	111 73 49	311 201 C9	Ù	131 89 59	331 217 D9	é	151 105 69	351 233 E9	ù	171 121 79	371 249 F9	9
10	ª	52 42 2A	252 170 AA	º	72 58 3A	272 186 BA	Ê	112 74 4A	312 202 CA	Ú	132 90 5A	332 218 DA	ê	152 106 6A	352 234 EA	ú	172 122 7A	372 250 FA	10
11	«	53 43 2B	253 171 AB	»	73 59 3B	273 187 BB	Ë	113 75 4B	313 203 CB	Û	133 91 5B	333 219 DB	ë	153 107 6B	353 235 EB	û	173 123 7B	373 251 FB	11
12		54 44 2C	254 172 AC	¼	74 60 3C	274 188 BC	Ì	114 76 4C	314 204 CC	Ü	134 92 5C	334 220 DC	ì	154 108 6C	354 236 EC	ü	174 124 7C	374 252 FC	12
13		55 45 2D	255 173 AD	½	75 61 3D	275 189 BD	Í	115 77 4D	315 205 CD	Ý	135 93 5D	335 221 DD	í	155 109 6D	355 237 ED	ý	175 125 7D	375 253 FD	13
14	¡	56 46 2E	256 174 AE	ı	76 62 3E	276 190 BE	Î	116 78 4E	316 206 CE	Ş	136 94 5E	336 222 DE	î	156 110 6E	356 238 EE	ş	176 126 7E	376 254 FE	14
15		57 47 2F	257 175 AF	¿	77 63 3F	277 191 BF	Ï	117 79 4F	317 207 CF	ß	137 95 5F	337 223 DF	ï	157 111 6F	357 239 EF				15

LEGEND

	GL	GR	
	4/1	12/1	Column/Row
Á	101 65 41	301 193 C1	Octal Decimal Hex

DEC Greek Supplemental Character Set

Row	GL 2 / GR 10	GL 3 / GR 11	GL 4 / GR 12	GL 5 / GR 13	GL 6 / GR 14	GL 7 / GR 15	Row
0		° 60 48 30 / 260 176 B0	¨ι 100 64 40 / 300 192 C0		¨υ 140 96 60 / 340 224 E0		0
1	¡ 41 33 21 / 241 161 A1	± 61 49 31 / 261 177 B1	Α 101 65 41 / 301 193 C1	Π 121 81 51 / 321 209 D1	α 141 97 61 / 341 225 E1	π 161 113 71 / 361 241 F1	1
2	¢ 42 34 22 / 242 162 A2	² 62 50 32 / 262 178 B2	Β 102 66 42 / 302 194 C2	Ρ 122 82 52 / 322 210 D2	β 142 98 62 / 342 226 E2	ρ 162 114 72 / 362 242 F2	2
3	£ 43 35 23 / 243 163 A3	³ 63 51 33 / 263 179 B3	Γ 103 67 43 / 303 195 C3	Σ 123 83 53 / 323 211 D3	γ 143 99 63 / 343 227 E3	σ 163 115 73 / 363 243 F3	3
4	44 36 24 / 244 164 A4	64 52 34 / 264 180 B4	Δ 104 68 44 / 304 196 C4	Τ 124 84 54 / 324 212 D4	δ 144 100 64 / 344 228 E4	τ 164 116 74 / 364 244 F4	4
5	¥ 45 37 25 / 245 165 A5	μ 65 53 35 / 265 181 B5	Ε 105 69 45 / 305 197 C5	Υ 125 85 55 / 325 213 D5	ε 145 101 65 / 345 229 E5	υ 165 117 75 / 365 245 F5	5
6	46 38 26 / 246 166 A6	¶ 66 54 36 / 266 182 B6	Ζ 106 70 46 / 306 198 C6	Φ 126 86 56 / 326 214 D6	ζ 146 102 66 / 346 230 E6	φ 166 118 76 / 366 246 F6	6
7	§ 47 39 27 / 247 167 A7	· 67 55 37 / 267 183 B7	Η 107 71 47 / 307 199 C7	Χ 127 87 57 / 327 215 D7	η 147 103 67 / 347 231 E7	χ 167 119 77 / 367 247 F7	7
8	¤ 50 40 28 / 250 168 A8	70 56 38 / 270 184 B8	Θ 110 72 48 / 310 200 C8	Ψ 130 88 58 / 330 216 D8	θ 150 104 68 / 350 232 E8	ψ 170 120 78 / 370 248 F8	8
9	© 51 41 29 / 251 169 A9	¹ 71 57 39 / 271 185 B9	Ι 111 73 49 / 311 201 C9	Ω 131 89 59 / 331 217 D9	ι 151 105 69 / 351 233 E9	ω 171 121 79 / 371 249 F9	9
10	ª 52 42 2A / 252 170 AA	º 72 58 3A / 272 186 BA	Κ 112 74 4A / 312 202 CA	΄α 132 90 5A / 332 218 DA	κ 152 106 6A / 352 234 EA	ς 172 122 7A / 372 250 FA	10
11	« 53 43 2B / 253 171 AB	» 73 59 3B / 273 187 BB	Λ 113 75 4B / 313 203 CB	΄ε 133 91 5B / 333 219 DB	λ 153 107 6B / 353 235 EB	΄υ 173 123 7B / 373 251 FB	11
12	54 44 2C / 254 172 AC	¼ 74 60 3C / 274 188 BC	Μ 114 76 4C / 314 204 CC	΄η 134 92 5C / 334 220 DC	μ 154 108 6C / 354 236 EC	΄ω 174 124 7C / 374 252 FC	12
13	55 45 2D / 255 173 AD	½ 75 61 3D / 275 189 BD	Ν 115 77 4D / 315 205 CD	΄ι 135 93 5D / 335 221 DD	ν 155 109 6D / 355 237 ED	΄ 175 125 7D / 375 253 FD	13
14	56 46 2E / 256 174 AE	76 62 3E / 276 190 BE	Ξ 116 78 4E / 316 206 CE	136 94 5E / 336 222 DE	ξ 156 110 6E / 356 238 EE	176 126 7E / 376 254 FE	14
15	57 47 2F / 257 175 AF	¿ 77 63 3F / 277 191 BF	Ο 117 79 4F / 317 207 CF	΄ο 137 95 5F / 337 223 DF	ο 157 111 6F / 357 239 EF		15

LEGEND

	GL 4/1	GR 12/1	
			Column/Row
A	101	301	Octal
	65	193	Decimal
	41	C1	Hex

ISO Latin-2 Supplemental Character Set

		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR	
	Column	2	10		3	11		4	12		5	13		6	14		7	15	
Row 0	NBSP	40 32 20	240 160 A0	°	60 48 30	260 176 B0	´Ŕ	100 64 40	300 192 C0	Đ	120 80 50	320 208 D0	´ŕ	140 96 60	340 224 E0	đ	160 112 70	360 240 F0	Row 0
1	Ą	41 33 21	241 161 A1	ą	61 49 31	261 177 B1	´Á	101 65 41	301 193 C1	´Ń	121 81 51	321 209 D1	´á	141 97 61	341 225 E1	´ń	161 113 71	361 241 F1	1
2	˘	42 34 22	242 162 A2	˛	62 50 32	262 178 B2	Â	102 66 42	302 194 C2	Ň	122 82 52	322 210 D2	â	142 98 62	342 226 E2	ň	162 114 72	362 242 F2	2
3	Ł	43 35 23	243 163 A3	ł	63 51 33	263 179 B3	Ă	103 67 43	303 195 C3	´Ő	123 83 53	323 211 D3	ă	143 99 63	343 227 E3	´ő	163 115 73	363 243 F3	3
4	¤	44 36 24	244 164 A4	˙	64 52 34	264 180 B4	Ä	104 68 44	304 196 C4	Ô	124 84 54	324 212 D4	ä	144 100 64	344 228 E4	ô	164 116 74	364 244 F4	4
5	Ľ	45 37 25	245 165 A5	ˇĺ	65 53 35	265 181 B5	´Ĺ	105 69 45	305 197 C5	ő	125 85 55	325 213 D5	´í	145 101 65	345 229 E5	ő	165 117 75	365 245 F5	5
6	´Ś	46 38 26	246 166 A6	´ś	66 54 36	266 182 B6	´Ć	106 70 46	306 198 C6	Ö	126 86 56	326 214 D6	ć	146 102 66	346 230 E6	ö	166 118 76	366 246 F6	6
7	§	47 39 27	247 167 A7	ˇ	67 55 37	267 183 B7	Ç	107 71 47	307 199 C7	×	127 87 57	327 215 D7	ç	147 103 67	347 231 E7	÷	167 119 77	367 247 F7	7
8	¨	50 40 28	250 168 A8	˛	70 56 38	270 184 B8	ˇČ	110 72 48	310 200 C8	ˇŘ	130 88 58	330 216 D8	ˇč	150 104 68	350 232 E8	ˇř	170 120 78	370 248 F8	8
9	ˇŠ	51 41 29	251 169 A9	ˇš	71 57 39	271 185 B9	´É	111 73 49	311 201 C9	˚Ů	131 89 59	331 217 D9	´é	151 105 69	351 233 E9	˚ů	171 121 79	371 249 F9	9
10	Ş	52 42 2A	252 170 AA	ş	72 58 3A	272 186 BA	Ę	112 74 4A	312 202 CA	´Ú	132 90 5A	332 218 DA	ę	152 106 6A	352 234 EA	´ú	172 122 7A	372 250 FA	10
11	Ť	53 43 2B	253 171 AB	ˇt	73 59 3B	273 187 BB	Ë	113 75 4B	313 203 CB	˝Ű	133 91 5B	333 219 DB	ë	153 107 6B	353 235 EB	˝ű	173 123 7B	373 251 FB	11
12	´Ź	54 44 2C	254 172 AC	´ź	74 60 3C	274 188 BC	ˇĚ	114 76 4C	314 204 CC	Ü	134 92 5C	334 220 DC	ˇě	154 108 6C	354 236 EC	ü	174 124 7C	374 252 FC	12
13	-	55 45 2D	255 173 AD	˝	75 61 3D	275 189 BD	Í	115 77 4D	315 205 CD	´Ý	135 93 5D	335 221 DD	í	155 109 6D	355 237 ED	ý	175 125 7D	375 253 FD	13
14	ˇŽ	56 46 2E	256 174 AE	ˇž	76 62 3E	276 190 BE	ˆÎ	116 78 4E	316 206 CE	Ţ	136 94 5E	336 222 DE	î	156 110 6E	356 238 EE	ţ	176 126 7E	376 254 FE	14
15	˚Ż	57 47 2F	257 175 AF	˚ż	77 63 3F	277 191 BF	ˇĎ	117 79 4F	317 207 CF	ß	137 95 5F	337 223 DF	ˇď	157 111 6F	357 239 EF	˙	177 127 7F	377 255 FF	15

LEGEND

	GL	GR	
	4/1	12/1	Column/Row
´Á	101 65 41	301 193 C1	Octal Decimal Hex

ISO Latin-Cyrillic Supplemental Character Set

		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR	
	Column	2	10		3	11		4	12		5	13		6	14		7	15	
Row 0	NBSP	40 32 20	240 160 A0	А	60 48 30	260 176 B0	Р	100 64 40	300 192 C0	а	120 80 50	320 208 D0	р	140 96 60	340 224 E0	№	160 112 70	360 240 F0	Row 0
1	Ё	41 33 21	241 161 A1	Б	61 49 31	261 177 B1	С	101 65 41	301 193 C1	б	121 81 51	321 209 D1	с	141 97 61	341 225 E1	ё	161 113 71	361 241 F1	1
2	Ђ	42 34 22	242 162 A2	В	62 50 32	262 178 B2	Т	102 66 42	302 194 C2	в	122 82 52	322 210 D2	т	142 98 62	342 226 E2	ђ	162 114 72	362 242 F2	2
3	Ґ	43 35 23	243 163 A3	Г	63 51 33	263 179 B3	У	103 67 43	303 195 C3	г	123 83 53	323 211 D3	у	143 99 63	343 227 E3	ґ	163 115 73	363 243 F3	3
4	Є	44 36 24	244 164 A4	Д	64 52 34	264 180 B4	Ф	104 68 44	304 196 C4	д	124 84 54	324 212 D4	ф	144 100 64	344 228 E4	є	164 116 74	364 244 F4	4
5	S	45 37 25	245 165 A5	Е	65 53 35	265 181 B5	Х	105 69 45	305 197 C5	е	125 85 55	325 213 D5	х	145 101 65	345 229 E5	s	165 117 75	365 245 F5	5
6	І	46 38 26	246 166 A6	Ж	66 54 36	266 182 B6	Ц	106 70 46	306 198 C6	ж	126 86 56	326 214 D6	ц	146 102 66	346 230 E6	і	166 118 76	366 246 F6	6
7	Ї	47 39 27	247 167 A7	З	67 55 37	267 183 B7	Ч	107 71 47	307 199 C7	з	127 87 57	327 215 D7	ч	147 103 67	347 231 E7	ї	167 119 77	367 247 F7	7
8	J	50 40 28	250 168 A8	И	70 56 38	270 184 B8	Ш	110 72 48	310 200 C8	и	130 88 58	330 216 D8	ш	150 104 68	350 232 E8	j	170 120 78	370 248 F8	8
9	Ґ	51 41 29	251 169 A9	Й	71 57 39	271 185 B9	Щ	111 73 49	311 201 C9	й	131 89 59	331 217 D9	щ	151 105 69	351 233 E9	ґ	171 121 79	371 249 F9	9
10	Њ	52 42 2A	252 170 AA	К	72 58 3A	272 186 BA	ъ	112 74 4A	312 202 CA	к	132 90 5A	332 218 DA	ъ	152 106 6A	352 234 EA	њ	172 122 7A	372 250 FA	10
11	Ћ	53 43 2B	253 171 AB	Л	73 59 3B	273 187 BB	Ы	113 75 4B	313 203 CB	л	133 91 5B	333 219 DB	ы	153 107 6B	353 235 EB	ћ	173 123 7B	373 251 FB	11
12	Ќ	54 44 2C	254 172 AC	М	74 60 3C	274 188 BC	Ь	114 76 4C	314 204 CC	м	134 92 5C	334 220 DC	ь	154 108 6C	354 236 EC	ќ	174 124 7C	374 252 FC	12
13	-	55 45 2D	255 173 AD	Н	75 61 3D	275 189 BD	Э	115 77 4D	315 205 CD	н	135 93 5D	335 221 DD	э	155 109 6D	355 237 ED	§	175 125 7D	375 253 FD	13
14	ў	56 46 2E	256 174 AE	О	76 62 3E	276 190 BE	Ю	116 78 4E	316 206 CE	о	136 94 5E	336 222 DE	ю	156 110 6E	356 238 EE	ў	176 126 7E	376 254 FE	14
15	Џ	57 47 2F	257 175 AF	П	77 63 3F	277 191 BF	Я	117 79 4F	317 207 CF	п	137 95 5F	337 223 DF	я	157 111 6F	357 239 EF	џ	177 127 7F	377 255 FF	15

LEGEND

	GL	GR	
	4/1	12/1	Column/Row
С	101 65 41	301 193 C1	Octal Decimal Hex

ISO Latin-Greek Supplemental Character Set

		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR	
	Column	2	10		3	11		4	12		5	13		6	14		7	15	
Row 0	NBSP	40 32 20	240 160 A0	°	60 48 30	260 176 B0	ι	100 64 40	300 192 C0	Π	120 80 50	320 208 D0	ΰ	140 96 60	340 224 E0	π	160 112 70	360 240 F0	0
1	‘	41 33 21	241 161 A1	±	61 49 31	261 177 B1	A	101 65 41	301 193 C1	P	121 81 51	321 209 D1	α	141 97 61	341 225 E1	ρ	161 113 71	361 241 F1	1
2	’	42 34 22	242 162 A2	2	62 50 32	262 178 B2	B	102 66 42	302 194 C2		122 82 52	322 210 D2	β	142 98 62	342 226 E2	ς	162 114 72	362 242 F2	2
3	£	43 35 23	243 163 A3	3	63 51 33	263 179 B3	Γ	103 67 43	303 195 C3	Σ	123 83 53	323 211 D3	γ	143 99 63	343 227 E3	σ	163 115 73	363 243 F3	3
4		44 36 24	244 164 A4	΄	64 52 34	264 180 B4	Δ	104 68 44	304 196 C4	T	124 84 54	324 212 D4	δ	144 100 64	344 228 E4	τ	164 116 74	364 244 F4	4
5		45 37 25	245 165 A5	΅	65 53 35	265 181 B5	E	105 69 45	305 197 C5	Y	125 85 55	325 213 D5	ε	145 101 65	345 229 E5	υ	165 117 75	365 245 F5	5
6	¦	46 38 26	246 166 A6	Α	66 54 36	266 182 B6	Z	106 70 46	306 198 C6	Φ	126 86 56	326 214 D6	ζ	146 102 66	346 230 E6	φ	166 118 76	366 246 F6	6
7	§	47 39 27	247 167 A7	·	67 55 37	267 183 B7	H	107 71 47	307 199 C7	X	127 87 57	327 215 D7	η	147 103 67	347 231 E7	χ	167 119 77	367 247 F7	7
8	¨	50 40 28	250 168 A8	Ε	70 56 38	270 184 B8	Θ	110 72 48	310 200 C8	Ψ	130 88 58	330 216 D8	θ	150 104 68	350 232 E8	ψ	170 120 78	370 248 F8	8
9	©	51 41 29	251 169 A9	Η	71 57 39	271 185 B9	I	111 73 49	311 201 C9	Ω	131 89 59	331 217 D9	ι	151 105 69	351 233 E9	ω	171 121 79	371 249 F9	9
10		52 42 2A	252 170 AA	Ι	72 58 3A	272 186 BA	K	112 74 4A	312 202 CA	Ϊ	132 90 5A	332 218 DA	κ	152 106 6A	352 234 EA	ϊ	172 122 7A	372 250 FA	10
11	«	53 43 2B	253 171 AB	»	73 59 3B	273 187 BB	Λ	113 75 4B	313 203 CB	Υ	133 91 5B	333 219 DB	λ	153 107 6B	353 235 EB	ϋ	173 123 7B	373 251 FB	11
12	¬	54 44 2C	254 172 AC	Ο	74 60 3C	274 188 BC	M	114 76 4C	314 204 CC	ά	134 92 5C	334 220 DC	μ	154 108 6C	354 236 EC	ό	174 124 7C	374 252 FC	12
13	-	55 45 2D	255 173 AD	½	75 61 3D	275 189 BD	N	115 77 4D	315 205 CD	έ	135 93 5D	335 221 DD	ν	155 109 6D	355 237 ED	ύ	175 125 7D	375 253 FD	13
14		56 46 2E	256 174 AE	Υ	76 62 3E	276 190 BE	Ξ	116 78 4E	316 206 CE	ή	136 94 5E	336 222 DE	ξ	156 110 6E	356 238 EE	ώ	176 126 7E	376 254 FE	14
15	—	57 47 2F	257 175 AF	Ω	77 63 3F	277 191 BF	O	117 79 4F	317 207 CF	ί	137 95 5F	337 223 DF	ο	157 111 6F	357 239 EF		177 127 7F	377 255 FF	15

LEGEND

	GL	GR	
	4/1	12/1	Column/Row
A	101 65 41	301 193 C1	Octal Decimal Hex

ISO Latin-5 Supplemental Character Set

		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR		GL	GR	
	Column	2	10		3	11		4	12		5	13		6	14		7	15	
Row 0	NBSP	40 32 20	240 160 A0	°	60 48 30	260 176 B0	À	100 64 40	300 192 C0	Ğ	120 80 50	320 208 D0	à	140 96 60	340 224 E0	ğ	160 112 70	360 240 F0	Row 0
1	¡	41 33 21	241 161 A1	±	61 49 31	261 177 B1	Á	101 65 41	301 193 C1	Ñ	121 81 51	321 209 D1	á	141 97 61	341 225 E1	ñ	161 113 71	361 241 F1	1
2	¢	42 34 22	242 162 A2	²	62 50 32	262 178 B2	Â	102 66 42	302 194 C2	Ò	122 82 52	322 210 D2	â	142 98 62	342 226 E2	ò	162 114 72	362 242 F2	2
3	£	43 35 23	243 163 A3	³	63 51 33	263 179 B3	Ã	103 67 43	303 195 C3	Ó	123 83 53	323 211 D3	ã	143 99 63	343 227 E3	ó	163 115 73	363 243 F3	3
4	¤	44 36 24	244 164 A4	´	64 52 34	264 180 B4	Ä	104 68 44	304 196 C4	Ô	124 84 54	324 212 D4	ä	144 100 64	344 228 E4	ô	164 116 74	364 244 F4	4
5	¥	45 37 25	245 165 A5	µ	65 53 35	265 181 B5	Å	105 69 45	305 197 C5	Õ	125 85 55	325 213 D5	å	145 101 65	345 229 E5	õ	165 117 75	365 245 F5	5
6	¦	46 38 26	246 166 A6	¶	66 54 36	266 182 B6	Æ	106 70 46	306 198 C6	Ö	126 86 56	326 214 D6	æ	146 102 66	346 230 E6	ö	166 118 76	366 246 F6	6
7	§	47 39 27	247 167 A7	·	67 55 37	267 183 B7	Ç	107 71 47	307 199 C7	×	127 87 57	327 215 D7	ç	147 103 67	347 231 E7	÷	167 119 77	367 247 F7	7
8	¨	50 40 28	250 168 A8	¸	70 56 38	270 184 B8	È	110 72 48	310 200 C8	Ø	130 88 58	330 216 D8	è	150 104 68	350 232 E8	ø	170 120 78	370 248 F8	8
9	©	51 41 29	251 169 A9	¹	71 57 39	271 185 B9	É	111 73 49	311 201 C9	Ù	131 89 59	331 217 D9	é	151 105 69	351 233 E9	ù	171 121 79	371 249 F9	9
10	ª	52 42 2A	252 170 AA	º	72 58 3A	272 186 BA	Ê	112 74 4A	312 202 CA	Ú	132 90 5A	332 218 DA	ê	152 106 6A	352 234 EA	ú	172 122 7A	372 250 FA	10
11	«	53 43 2B	253 171 AB	»	73 59 3B	273 187 BB	Ë	113 75 4B	313 203 CB	Û	133 91 5B	333 219 DB	ë	153 107 6B	353 235 EB	û	173 123 7B	373 251 FB	11
12	¬	54 44 2C	254 172 AC	¼	74 60 3C	274 188 BC	Ì	114 76 4C	314 204 CC	Ü	134 92 5C	334 220 DC	ì	154 108 6C	354 236 EC	ü	174 124 7C	374 252 FC	12
13	-	55 45 2D	255 173 AD	½	75 61 3D	275 189 BD	Í	115 77 4D	315 205 CD	İ	135 93 5D	335 221 DD	í	155 109 6D	355 237 ED	ı	175 125 7D	375 253 FD	13
14	®	56 46 2E	256 174 AE	¾	76 62 3E	276 190 BE	Î	116 78 4E	316 206 CE	Ş	136 94 5E	336 222 DE	î	156 110 6E	356 238 EE	ş	176 126 7E	376 254 FE	14
15	¯	57 47 2F	257 175 AF	¿	77 63 3F	277 191 BF	Ï	117 79 4F	317 207 CF	ß	137 95 5F	337 223 DF	ï	157 111 6F	357 239 EF	ÿ	177 127 7F	377 255 FF	15

LEGEND

	GR
	12/1 Column/Row
Á	301 Octal 193 Decimal C1 Hex

ISO Latin 9

	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0		0	@	P	`	p	Ç	É	á	▒	└	ð	Ó	-
1	!	1	A	Q	a	q	ü	æ	í	▒	┴	Ð	ß	±
2	"	2	B	R	b	r	é	Æ	ó	▒	┬	Ë	Ö	‗
3	#	3	C	S	c	s	â	ô	ú	▒	├	ë	Ò	¾
4	$	4	D	T	d	t	ä	ö	ñ	▒	─	È	õ	¶
5	%	5	E	U	e	u	à	ò	Ñ	Á	┼	€	Õ	§
6	&	6	F	V	f	v	å	û	ª	Â	ã	Í	µ	÷
7	'	7	G	W	g	w	ç	ù	º	À	Ã	Î	þ	¸
8	(	8	H	X	h	x	ê	ÿ	¿	©	╚	Ï	Þ	°
9	)	9	I	Y	i	y	ë	Ö	®	╣	╔	┘	Ú	¨
A	*	:	J	Z	j	z	è	Ü	¬	║	╩	┌	Û	·
B	+	;	K	[	k	{	ï	ø	½	╗	╦	▒	Ù	¹
C	,	<	L	\	l	|	î	£	¼	╝	╠	▒	ý	³
D	-	=	M	]	m	}	ì	Ø	¡	ç	═	¦	Ý	²
E	.	>	N	^	n	~	Ä	×	«	¥	╬	Ì	¯	▪
F	/	?	O	_	o		Å	ƒ	»	┐	¤	▒	´	

Generic Character Set Tables

The following are the character set table which are common to the IBM and the EPSON protocol.

Code Page 210

	80	90	A0	B0	C0	D0	E0	F0
0	A	P	ι	⣿	└	╨		Ω
1	B	Σ	и	▒	┴	╤	ά	±
2	Γ	T	λ	▓	┬	╥	έ	≥
3	Δ	Y	μ	│	├	╙	ή	≤
4	E	Φ	ν	┤	─	╘	ϊ	⌠
5	Z	X	ξ	╡	┼	╒	ί	⌡
6	H	Ψ	o	╢	╞	╓	ό	÷
7	Θ	Ω	π	╖	╟	╫	ύ	≈
8	I	α	p	╕	╚	╪	ϋ	°
9	K	β	σ	╣	╔	┘	ώ	£
A	Λ	γ	ς	║	╩	┌	Ά	·
B	M	δ	τ	╗	╦	▉	Έ	√
C	N	ε	υ	╝	╠	▄	Ή	n
D	Ξ	ζ	φ	╜	═	▌	Ί	2
E	O	η	χ	╛	╬	▐	Ό	■
F	Π	Θ	ψ	┐	╧	▀	Ύ	ω

Code Page 220

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	á	⣿	└	╨	α	≡
1	ü	Í	í	▒	┴	╤	β	±
2	é	Ó	ó	▓	┬	╥	Γ	≥
3	â	ô	ú	│	├	╙	π	≤
4	ä	ö	ñ	┤	─	╘	Σ	⌠
5	à	ò	Ñ	╡	┼	╒	σ	⌡
6	À	û	ª	╢	╞	╓	µ	÷
7	ç	ù	º	╖	╟	╫	τ	≈
8	ê	Á	¿	╕	╚	╪	Φ	°
9	ë	Ö	⌐	╣	╔	┘	Θ	•
A	è	Ü	¬	║	╩	┌	Ω	·
B	ï	ò	½	╗	╦	▉	δ	√
C	î	£	¼	╝	╠	▄	∞	n
D	ì	Ú	¡	╜	═	▌	ø	2
E	Ä	₧	«	╛	╬	▐	∈	■
F	È	ï	»	┐	╧	▀	∩	

Code Page 437 Greek

	80	90	A0	B0	C0	D0	E0	F0
0	A	P	ι	⣿	└	╨	ω	Ω
1	B	Σ	и	▒	┴	╤	ά	±
2	Γ	T	λ	▓	┬	╥	έ	≥
3	Δ	Y	μ	│	├	╙	ή	≤
4	E	Φ	ν	┤	─	╘	ϊ	⌠
5	Z	X	ξ	╡	┼	╒	ί	⌡
6	H	Ψ	o	╢	╞	╓	ό	÷
7	Θ	Ω	π	╖	╟	╫	ύ	≈
8	I	α	ϱ	╕	╚	╪	ϋ	°
9	K	β	σ	╣	╔	┘	ώ	£
A	Λ	γ	ς	║	╩	┌	Ά	¥
B	M	δ	τ	╗	╦	▉	Έ	√
C	N	ε	υ	╝	╠	▄	Ή	n
D	Ξ	ζ	φ	╜	═	▌	Ί	2
E	O	η	χ	╛	╬	▐	Ό	■
F	Π	Θ	ψ	┐	╧	▀	Ύ	

Code Page 850

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	á	⣿	└	ð	Ó	−
1	ü	æ	í	⣿	┴	Ð	ß	±
2	é	Æ	ó	⣿	┬	Ê	Ô	‗
3	â	ô	ú	│	├	Ë	Ò	¾
4	ä	ö	ñ	┤	─	È	õ	¶
5	à	ò	Ñ	Á	┼	ı	Õ	§
6	å	û	ª	Â	ã	Í	µ	÷
7	ç	ù	º	À	Ã	Î	þ	¸
8	ê	ÿ	¿	©	╚	Ï	Þ	°
9	ë	Ö	®	╣	╔	┘	Ú	¨
A	è	Ü	¬	╠	╩	┌	Û	·
B	ï	ø	½	╗	╦	⣿	Ù	¹
C	î	£	¼	╝	╠	⣿	ý	³
D	ì	Ø	¡	¢	═	¦	Ý	²
E	Ä	×	«	¥	╬	Ì	¯	■
F	Å	ƒ	»	┐	¤	⣿	´	

Code Page 852

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	á	⣿	└	đ	Ó	−
1	ü	Ĺ	í	⣿	┴	Đ	ß	˝
2	é	ĺ	ó	⣿	┬	Ď	Ô	˛
3	â	ô	ú	│	├	Ë	Ń	ˇ
4	ä	ö	Ą	┤	─	ď	ń	˘
5	ů	Ľ	ą	Á	┼	Ň	ň	§
6	ć	ľ	Ž	Â	Ă	Í	Š	÷
7	ç	Ś	ž	Ě	ă	Î	š	¸
8	ł	ś	Ę	Ş	╚	ě	Ŕ	°
9	ë	Ö	ę	╣	╔	┘	Ú	¨
A	Ő	Ü		╠	╩	┌	ŕ	·
B	ő	Ť	ź	╗	╦	⣿	Ű	ű
C	î	ť	Č	╝	╠	⣿	ý	Ř
D	Ź	Ł	ş	Ż	═	Ţ	Ý	ř
E	Ä	×	«	ż	╬	Ů	ţ	■
F	Ć	č	»	┐	¤	⣿	´	

Code Page 853

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	á	⣿	└		Ó	−
1	ü	ċ	í	⣿	┴		ß	
2	é	Ċ	ó	⣿	┬	Ê	Ô	ℓ
3	â	ô	ú	│	├	Ë	Ò	ħ
4	ä	ö	ñ	┤	─	È	Ġ	˘
5	à	ò	Ñ	Á	┼	ı	ġ	§
6	Ĉ	û	Ğ	Â	Ŝ	Í	µ	÷
7	ç	ù	ğ	À	ŝ	Î	Ħ	¸
8	ê	İ	Ĥ	Ş	╚	Ï	ħ	°
9	ë	Ö	ĥ	╣	╔	┘	Ú	¨
A	è	Ü		╠	╩	┌	Û	·
B	ï	ĝ	½	╗	╦	⣿	Ù	
C	î	£	Ĵ	╝	╠	⣿	Ŭ	³
D	ì	Ĝ	ş	Ż	═		ŭ	²
E	Ä	×	«	ż	╬	Ì		■
F	Ĉ	ĵ	»	┐	¤	⣿	´	

Code Page 855

	80	90	A0	B0	C0	D0	E0	F0
0	ђ	љ	а	▒	└	л	Я	–
1	Ђ	Љ	А	▒	┴	Л	р	ы
2	ѓ	њ	б	▒	┬	м	Р	Ы
3	Ѓ	Њ	Б	│	├	М	с	з
4	ё	ћ	ц	┤	─	н	С	З
5	Ё	Ћ	Ц	х	┼	Н	т	ш
6	є	ќ	д	Х	к	о	Т	Ш
7	Є	Ќ	Д	и	К	О	у	э
8	ѕ	ў	е	И	╚	п	У	Э
9	Ѕ	Ў	Е	╣	╔	┘	ж	щ
A	і	ц	ф	║	╩	┌	Ж	Щ
B	І	Ц	Ф	╗	╦	▓	в	ч
C	ї	ю	г	╝	╠	▄	В	Ч
D	Ї	Ю	Г	й	═	П	ь	
E	j	ъ	«	Й	╬	я	Ь	■
F	J	Ъ	»	┐	¤	▌	№	

Code Page 857

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	á	▒	└	º	Ó	–
1	ü	æ	í	▒	┴	ª	ß	±
2	é	Æ	ó	▒	┬	Ê	Ô	
3	â	ô	ú	│	├	Ë	Ò	¾
4	ä	ö	ñ	┤	─	È	õ	¶
5	à	ò	Ñ	Á	┼		Õ	§
6	å	û	Ğ	Â	ã	í	µ	÷
7	ç	ù	ğ	À	Ã	Î		¸
8	ê	İ	¿	©	╚	Ï	×	º
9	ë	ö	®	╣	╔	┘	Ú	¨
A	è	Ü	¬	╠	╩	┌	Û	·
B	ï	ø	½	╗	╦	▓	Ù	1
C	î	£	¼	╝	╠	▄	ì	3
D	1	Ø	¡	¢	═	¦	ÿ	2
E	Ä	Ş	«	¥	╬	Ì	¯	■
F	Å	Ş	»	┐	¤	▌	´	

Code Page 858

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	á	▒	└	ð	Ó	-
1	ü	æ	í	▒	┴	Ð	ß	±
2	é	Æ	ó	▒	┬	Ê	Ô	
3	â	ô	ú	│	├	Ë	Ò	¾
4	ä	ö	ñ	┤	─	€	õ	¶
5	à	ò	Ñ	Á	┼	Í	Õ	§
6	å	û	ã	Â	ã	Î	µ	÷
7	ç	ù	ã	À	Ã	Ï	þ	¸
8	ê	ÿ	¿	©	╚	¡	Þ	°
9	ë	Ö	®	╣	╔	┘	Ú	¨
A	è	Ü	¬	╠	╩	┌	Û	·
B	ï	ø	½	╗	╦	▓	Ù	¹
C	î	£	¼	╝	╠	▄	ý	³
D	ì	Ø	¡	¢	═	¦	Ý	²
E	Ä	×	«	¥	╬	Ì	¯	▪
F	Å	ƒ	»	┐	¤	▌	·	

Code Page 860

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	á	▒	└	╨	α	≡
1	ü	À	í	▒	┴	╤	ß	±
2	é	È	ó	▒	┬	╥	Γ	≥
3	â	ô	ú	┤	├	╙	π	≤
4	ã	õ	ñ	┤	─	╘	Σ	⌠
5	à	ò	Ñ	╡	┼	╒	σ	⌡
6	Á	Ú	ª	╢	╞	╓	µ	÷
7	ç	ù	º	╖	╟	╫	τ	≈
8	ê	Ì	¿	╕	╚	╪	Φ	°
9	Ê	õ	ò	╣	╔	┘	θ	•
A	è	Ü	¬	║	╩	┌	Ω	·
B	Í	¢	½	╗	╦	■	δ	√
C	Ô	£	¼	╝	╠	▄	∞	n
D	ì	Ù	¡	╜	═	▌	ø	2
E	Ã	₧	«	╛	╬	▐	∈	■
F	Â	Ó	»	┐	╧	▀	∩	

Code Page 861

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	á	▒	└	╨	α	≡
1	ü	æ	í	▒	┴	╤	ß	±
2	é	Æ	ó	▒	┬	╥	Γ	≥
3	â	ô	ú	┤	├	╙	π	≤
4	ä	ö	Á	┤	─	╘	Σ	⌠
5	à	Þ	Í	╡	┼	╒	σ	⌡
6	å	û	Ó	╢	╞	╓	µ	÷
7	ç	Ý	Ú	╖	╟	╫	τ	≈
8	ê	ý	¿	╕	╚	╪	Φ	°
9	ë	Ö	⌐	╣	╔	┘	θ	•
A	è	Ü	¬	║	╩	┌	Ω	·
B	Ð	ø	½	╗	╦	■	δ	√
C	ð	£	¼	╝	╠	▄	∞	n
D	Þ	Ø	¡	╜	═	▌	ø	2
E	Ä	₧	«	╛	╬	▐	∈	■
F	Å	ƒ	»	┐	╧	▀	∩	

Code Page 862

	80	90	A0	B0	C0	D0	E0	F0
0	א	נ	á	▒	└	╨	α	≡
1	ב	ס	í	▒	┴	╤	ß	±
2	ג	ע	ó	▒	┬	╥	Γ	≥
3	ד	ף	ú	┤	├	╙	π	≤
4	ה	פ	ñ	┤	─	╘	Σ	⌠
5	ו	ץ	Ñ	╡	┼	╒	σ	⌡
6	ז	צ	ª	╢	╞	╓	µ	÷
7	ח	ק	º	╖	╟	╫	τ	≈
8	ט	ר	¿	╕	╚	╪	Φ	°
9	י	ש	⌐	╣	╔	┘	θ	•
A	ך	ת	¬	║	╩	┌	Ω	·
B	כ	¢	½	╗	╦	■	δ	√
C	ל	£	¼	╝	╠	▄	∞	n
D	ם	¥	¡	╜	═	▌	ø	2
E	מ	₧	«	╛	╬	▐	∈	■
F	ן	ƒ	»	┐	╧	▀	∩	

Code Page 863

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	¦	⣿	└	╨	α	≡
1	ü	È	´	⣿	┴	╤	ß	±
2	é	Ê	ó	⣿	┬	╥	Γ	≥
3	â	ô	ú	⣿	├	╙	π	≤
4	Â	Ë	¨	⣿	─	╘	Σ	⌠
5	à	Ï	⣿	⣿	┼	╒	σ	⌡
6	¶	û	³	⣿	╞	╓	µ	÷
7	ç	ù	¯	⣿	╟	╫	τ	≈
8	ê	¤	Î	⣿	╚	╪	Φ	°
9	ë	Ô	⌐	⣿	╔	┘	Θ	•
A	è	Ü	¬	⣿	╩	┌	Ω	·
B	ï	¢	½	⣿	╦	⣿	δ	√
C	î	£	¼	⣿	╠	⣿	∞	n
D	‗	Ù	¾	⣿	═	⣿	ø	²
E	À	Û	«	⣿	╬	⣿	∈	■
F	§	ƒ	»	⣿	╧	⣿	∩	

Code Page 864

	80	90	A0	B0	C0	D0	E0	F0
0	°	ß		◆	¢	ذ	ـ	ـّ
1	·	∞	−	١	ء	ر	ف	ـً
2	•	ø	آ	٢	آ	ز	ق	ن
3	√	±	£	٣	أ	س	ك	ه
4	⣿	½	¤	٤	ؤ	ش	ل	ـٌ
5	─	¼	ئ	٥	ع	ص	م	ى
6	┃	≈		٦	ئ	ض	ن	ي
7	┼	«		٧	ا	ط	ه	ـٍ
8	┤	»	┘	٨	ب	ظ	و	ق
9	╕	ﻵ	┐	٩	ة	ع	ى	ﻷ
A	╞	ﻶ	╕	ت	ف	ت	ي	ﻸ
B	┴		ث	؛	ث	¦	ض	ل
C	┐		،	س	ج	¬	ص	ك
D	└	ﻹ	ج	ش	ح	÷	خ	ي
E	┴	ﻺ	ح	ص	خ	×	غ	■
F	┬	ﻻ	خ	؟	د	ع	م	

Code Page 865

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	á	⣿	└	╨	α	≡
1	ü	æ	í	⣿	┴	╤	ß	±
2	é	Æ	ó	⣿	┬	╥	Γ	≥
3	â	ô	ú	⣿	├	╙	π	≤
4	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	å	û	ª	⣿	╞	╓	µ	÷
7	ç	ù	º	⣿	╟	╫	τ	≈
8	ê	ÿ	¿	⣿	╚	╪	Φ	°
9	ë	Ö	⌐	⣿	╔	┘	Θ	•
A	è	Ü	¬	⣿	╩	┌	Ω	·
B	ï	ø	½	⣿	╦	⣿	δ	√
C	î	£	¼	⣿	╠	⣿	∞	n
D	ì	Ø	¡	⣿	═	⣿	ø	²
E	Ä	₧	«	⣿	╬	⣿	∈	■
F	Å	ƒ	¤	⣿	╧	⣿	∩	

Code Page 866

	80	90	A0	B0	C0	D0	E0	F0
0	А	Р	а	▒	└	╨	р	Ё
1	Б	С	б	▒	┴	╤	с	ё
2	В	Т	в	▒	┬	╥	т	Є
3	Г	У	г	│	├	╙	у	є
4	Д	Ф	д	┤	─	╘	ф	Ї
5	Е	Х	е	╡	┼	╒	х	ї
6	Ж	Ц	ж	╢	╞	╓	ц	Ў
7	З	Ч	з	╖	╟	╫	ч	ў
8	И	Ш	и	╕	╚	╪	ш	°
9	Й	Щ	й	╣	╔	┘	щ	∙
A	К	Ъ	к	║	╩	┌	ъ	·
B	Л	Ы	л	╗	╦	■	ы	√
C	М	Ь	м	╝	╠	▄	ь	№
D	Н	Э	н	╜	═	▌	э	¤
E	О	Ю	о	╛	╬	▐	ю	■
F	П	Я	п	┐	╧	▀	я	

Code Page 869

	80	90	A0	B0	C0	D0	E0	F0
0		Ί	ΰ	▒	└	Τ	ξ	−
1		Ϊ	ΰ	▒	┴	Υ	η	±
2		Ό	ό	▒	┬	Φ	ϑ	υ
3			Ύ	│	├	Χ	ι	φ
4			Α	┤	─	Ψ	κ	χ
5		Ύ	Β	Κ	┼	Ω	λ	§
6	Ά	Ϋ	Γ	Λ	Π	α	μ	ψ
7		©	Δ	Μ	Ρ	β	ν	΄
8	·	Ω	Ε	Ν	╚	γ	ξ	°
9	¬	²	Ζ	╣	╔	┘	ο	¨
A	¦	³	Η	║	╩	┌	π	ω
B	‘	ά	½	╗	╦	■	ϱ	ϋ
C	’	£	Θ	╝	╠	▄	σ	ΰ
D	Έ	έ	Ι	Ξ	═	δ	ς	ώ
E	—	ή	«	Ο	╬	ϵ	τ	■
F	Ή	ί	»	┐	Σ	▀	΄	

Abicomp

	80	90	A0	B0	C0	D0	E0	F0
0				Ò	¡	ò		
1			À	Ó	à	ó		
2			Á	Ô	á	ô		
3			Â	Õ	â	õ		
4			Ã	Ö	ã	ö		
5			Ä	Œ	ä	œ		
6			Ç	Ù	ç	ù		
7			È	Ú	è	ú		
8			É	Û	é	û		
9			Ê	Ü	ê	ü		
A			Ë	Ÿ	ë	ÿ		
B			Ì	¨	ì	ß		
C			Í	£	í	ª		
D			Î	·	î	º		
E			Ï	§	ï	¿		
F			Ñ	°	ñ	±		

Brazilian ASCII

	80	90	A0	B0	C0	D0	E0	F0
0				°	À	Đ	à	ð
1			¡	±	Á	Ñ	á	ñ
2			¢	²	Â	Ò	â	ò
3			£	³	Ã	Ó	ã	ó
4			¤	´	Ä	Ô	ä	ô
5			¥	µ	Å	Õ	å	õ
6			¦	¶	Æ	Ö	æ	ö
7			§	·	Ç	Œ	ç	œ
8			¨	¸	È	Ø	è	ø
9			©	¹	É	Ù	é	ù
A			ª	º	Ê	Ú	ê	ú
B			«	»	Ë	Û	ë	û
C			¬	¼	Ì	Ü	ì	ü
D			-	½	Í	Ý	í	ý
E			®	¾	Î	Þ	î	þ
F			¯	¿	Ï	ß	ï	ÿ

Mazowian

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	Ę	Ź	⣿	└	┴	α	≡
1	ü	ę	Ż	⣿	┴	╤	ß	±
2	é	ł	ó	⣿	┬	╥	Γ	≥
3	â	ô	Ó	|	├	╙	π	≤
4	ä	ö	ń	┤	─	╘	Σ	⌠
5	à	Ć	Ń	╡	┼	╒	σ	⌡
6	ą	û	ź	╢	╞	╓	µ	÷
7	ç	ù	ż	╖	╟	╫	τ	≈
8	ê	Ś	§	╕	╚	╪	Φ	°
9	ë	Ö	┌	╣	╔	┘	Θ	•
A	è	Ü	¬	║	╩	┌	Ω	·
B	ï	ź	½	╗	╦	▉	δ	√
C	î	Ł	¼	╝	╠	▄	∞	n
D	ć	¥	¡	╜	═	▌	ø	²
E	Ä	ś	«	╛	╬	▐	∈	■
F	Ą	ƒ	»	┐	╧	▀	∩	

Code MJK

	80	90	A0	B0	C0	D0	E0	F0
0	Č	É	á	⣿	└	┴	α	≡
1	ü	ž	í	⣿	┴	╤	ß	±
2	é	Ž	ó	⣿	┬	╥	Γ	≥
3	ď	ô	ú	|	├	╙	π	≤
4	ä	ö	ň	┤	─	╘	Σ	⌠
5	Ď	Ó	Ň	╡	┼	╒	σ	⌡
6	Ť	ů	Ů	╢	╞	╓	µ	÷
7	č	Ú	ô	╖	╟	╫	τ	≈
8	ě	ý	š	╕	╚	╪	Φ	°
9	Ě	ö	ř	╣	╔	┘	Θ	•
A	Ĺ	Ü	ŕ	║	╩	┌	Ω	·
B	í	Š	Ŕ	╗	╦	▉	δ	√
C	Ľ	Ľ	¼	╝	╠	▄	∞	n
D	ĺ	Ý	§	╜	═	▌	ø	²
E	Ä	Ř	«	╛	╬	▐	∈	■
F	Á	ť	»	┐	╧	▀	∩	

Bulgarian

	80	90	A0	B0	C0	D0	E0	F0
0	А	Р	а	р	└	⁞	α	≡
1	Б	С	б	с	┴	⁞	β	±
2	В	Т	в	т	┬	⁞	Γ	≥
3	Г	У	г	у	├	│	π	≤
4	Д	Ф	д	ф	─	┤	Σ	⌠
5	Е	Х	е	х	┼	№	σ	⌡
6	Ж	Ц	ж	ц	╣	§	µ	÷
7	З	Ч	з	ч	║	╗	τ	≈
8	И	Ш	и	ш	╚	╝	Φ	°
9	Й	Щ	й	Щ	╔	┘	Θ	•
A	К	Ъ	к	ъ	╩	┌	Ω	·
B	Л	Ы	л	ы	╦	■	δ	√
C	М	Ь	м	ь	╠	▄	∞	n
D	Н	Э	н	э	═	▌	ø	2
E	О	Ю	о	ю	╬	▐	∈	■
F	П	Я	п	я	┐	▀	∩	

ISO 8859-7

	80	90	A0	B0	C0	D0	E0	F0
0				°	ΐ	Π	ΰ	π
1			‘	±	A	P	α	ϱ
2			’	²	B		β	ς
3			£	³	Γ	Σ	γ	σ
4				΄	Δ	T	δ	τ
5				΅	E	Υ	ε	υ
6			¦	Ά	Z	Φ	ζ	φ
7			§	•	H	X	η	χ
8			¨	Έ	Θ	Ψ	ϑ	ψ
9			©	Ή	I	Ω	ι	ω
A				Ί	K	Ϊ	κ	ϊ
B			«	»	Λ	Ϋ	λ	ϋ
C			¬	Ό	M	ά	µ	ό
D			—	½	N	έ	ν	ύ
E				Ύ	Ξ	ή	ξ	ώ
F			—	Ώ	O	ί	ο	

ISO Latin 1T

	80	90	A0	B0	C0	D0	E0	F0
0				°	À	Ğ	à	ğ
1			¡	±	Á	Ñ	á	ñ
2			¢	²	Â	Ò	â	ò
3			£	³	Ã	Ó	ã	ó
4			¤	´	Ä	Ô	ä	ô
5			¥	µ	Å	Õ	å	õ
6			¦	¶	Æ	Ö	æ	ö
7			§	·	Ç	×	ç	÷
8			¨	¸	È	Ø	è	ø
9			©	¹	É	Ù	é	ù
A			ª	º	Ê	Ú	ê	ú
B			«	»	Ë	Û	ë	û
C			¬	¼	Ì	Ü	ì	ü
D			—	½	Í	İ	í	ı
E			®	¾	Î	Ş	î	ş
F			¯	¿	Ï	ß	ï	ÿ

Code Page 437

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	á	⣿	└	╨	α	≡
1	ü	Í	í	⣿	┴	╤	ß	±
2	é	Ó	ó	⣿	┬	╥	Γ	≥
3	â	ô	ú	⣿	├	╙	π	≤
4	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	À	û	ª	⣿	╞	╓	µ	÷
7	Ç	ù	º	⣿	╟	╫	τ	≈
8	ê	Á	¿	⣿	╚	╪	Φ	°
9	ë	Ö	⌐	⣿	╔	┘	Θ	•
A	è	Ü	¬	⣿	╩	┌	Ω	·
B	ï	ò	½	⣿	╦	■	δ	√
C	î	£	¼	⣿	╠	■	∞	n
D	ì	Ú	¡	⣿	═	▌	ø	2
E	Ä	₧	«	⣿	╬	▐	∈	■
F	È	Ï	»	⣿	╧	■	∩	

D-Hebrew

	80	90	A0	B0	C0	D0	E0	F0
0	Ç	É	á	⣿	└	╨	א	נ
1	ü	æ	í	⣿	┴	╤	ב	ס
2	é	Æ	ó	⣿	┬	╥	ג	ע
3	â	ô	ú	⣿	├	╙	ד	ף
4	ä	ö	ñ	⣿	─	╘	ה	פ
5	à	ò	Ñ	⣿	┼	╒	ו	ץ
6	â	û	ª	⣿	╞	╓	ז	צ
7	ç	ù	º	⣿	╟	╫	ח	ק
8	ê	ÿ	¿	⣿	╚	╪	ט	ר
9	ë	Ö	⌐	⣿	╔	┘	י	ש
A	è	Ü	¬	⣿	╩	┌	ך	ת
B	ï	¢	½	⣿	╦	■	כ	√
C	î	£	¼	⣿	╠	■	ל	n
D	ì	¥	¡	⣿	═	▌	ם	2
E	Ä	₧	«	⣿	╬	▐	מ	■
F	Å	ƒ	»	⣿	╧	■	ן	

New Hebrew

	80	90	A0	B0	C0	D0	E0	F0
0	א	נ	á	⣿	└	╨	α	≡
1	ב	ס	í	⣿	┴	╤	ß	±
2	ג	ע	ó	⣿	┬	╥	Γ	≥
3	ד	ף	ú	⣿	├	╙	π	≤
4	ה	פ	ñ	⣿	─	╘	Σ	⌠
5	ו	ץ	Ñ	⣿	┼	╒	σ	⌡
6	ז	צ	ª	⣿	╞	╓	µ	÷
7	ח	ק	º	⣿	╟	╫	τ	≈
8	ט	ר	¿	⣿	╚	╪	Φ	°
9	י	ש	⌐	⣿	╔	┘	Θ	•
A	ך	ת	¬	⣿	╩	┌	Ω	·
B	כ	¢	½	⣿	╦	■	δ	√
C	ל	£	¼	⣿	╠	■	∞	n
D	ם	¥	¡	⣿	═	▌	ø	2
E	מ	₧	«	⣿	╬	▐	ε	■
F	ן	ƒ	»	⣿	╧	■	∩	

ISO 8859-15

	80	90	A0	B0	C0	D0	E0	F0
0				°	À	Ð	à	ð
1			¡	±	Á	Ñ	á	ñ
2			¢	²	Â	Ò	â	ò
3			£	³	Ã	Ó	ã	ó
4			€	Ž	Ä	Ô	ä	ô
5			¥	µ	Å	Õ	å	õ
6			Š	¶	Æ	Ö	æ	ö
7			§	·	Ç	×	ç	÷
8			š	ž	È	Ø	è	ø
9			©	¹	É	Ù	é	ù
A			ª	º	Ê	Ú	ê	ú
B			«	»	Ë	Û	ë	û
C			¬	Œ	Ì	Ü	ì	ü
D			-	œ	Í	Ý	í	ý
E			®	Ÿ	Î	Þ	î	þ
F			¯	¿	Ï	ß	ï	ÿ

IBM Character Set Tables

IBM Character Set 1

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
00	NUL		SP	0	@	P	’	p	NUL		á	¶	¿	–	a	=
01		DC1	!	1	A	Q	a	q		DC1	í	¶	¡	—	?	±
02		DC2	“	2	B	R	b	r		DC2	ó	¶	¬	“	G	=
03		DC3	#	3	C	S	c	s		DC3	ú	Š	Ð	”	p	=
04		DC4	$	4	D	T	d	t		DC4	ñ	¥	ƒ	‘	S	(
05			%	5	E	U	e	u			Ñ	µ	Ý	’	s	)
06			&	6	F	V	f	v			ª	¹	ý	÷	µ	~
07	BEL		‘	7	G	W	g	w	BEL		½	²	«	Þ	t	
08	BS	CAN	(	8	H	X	h	x	BS	CAN	ø	³	»	ÿ	F	×
09	HT		)	9	I	Y	i	y	HT		¨	¼	…	Ÿ	T	²
0A	LF		*	:	J	Z	j	z	LF		¨	½	þ	⁄	O	²
0B	VT	ESC	+	;	K	[	k	{	VT	ESC	|	ª	À	¶	d	v
0C	FF		,	<	L	\	l	|	FF		º	º	Ã	_	8	n
0D	CR		-	=	M	]	m	}	CR		°	|	Õ	¶	f	ð
0E	SO		.	>	N	^	n	~	SO		´	–	Œ	¶	e	¶
0F	SI		/	?	O	_	o	DEL	SI		ª	ø	œ	Ø	n	SP

IBM Character Set 2

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
00	NUL		SP	0	@	P	’	p	Ç	É	á	¶	¿	–	a	=
01		DC1	!	1	A	Q	a	q	ü	æ	í	¶	¡	—	?	±
02	`	DC2	“	2	B	R	b	r	é	Æ	ó	¶	¬	“	G	=
03	©	DC3	#	3	C	S	c	s	â	ô	ú	Š	Ð	”	p	=
04	®	DC4	$	4	D	T	d	t	ä	ö	ñ	¥	*ƒ*	‘	S	(
05	ß	§	%	5	E	U	e	u	à	ò	Ñ	µ	Ý	’	s	)
06	™		&	6	F	V	f	v	å	û	ª	¹	ý	÷	µ	~
07	BEL		‘	7	G	W	g	w	ç	ù	½	²	«	Þ	t	
08	BS	CAN	(	8	H	X	h	x	ê	ÿ	ø	³	»	ÿ	F	×
09	HT		)	9	I	Y	i	y	ë	ö	¨	¼	…	Ÿ	T	²
0A	LF		*	:	J	Z	j	z	è	Ü	¨	½	þ	⁄	O	²
0B	VT	ESC	+	;	K	[	k	{	ï	¢	|	ª	À	¶	d	v
0C	FF		,	<	L	\	l	|	î	£	º	º	Ã	_	8	n
0D	CR		-	=	M	]	m	}	ì	¥	°	|	Õ	¶	f	ð
0E	SO		.	>	N	^	n	~	Ä	P	´	–	Œ	¶	e	¶
0F	SI		/	?	O	_	o	DEL	Å		ª	ø	œ	Ø	n	SP

EPSON Character Set Tables

USA

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	@	P	`	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	⣿	├	╙	π	≤
4	♦		$	4	D	T	d	t	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	⣿	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	⣿	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	⣿	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	⣿	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	⣿	╩	┌	Ω	·
B			+	;	K	[	k	{	ï	¢	½	⣿	╦	■	δ	√
C			,	<	L	\	l	|	î	£	¼	⣿	╠	▄	∞	n
D			−	=	M	]	m	}	ì	¥	¡	⣿	═	▌	ø	²
E			.	>	N	^	n	~	Ä	₧	«	⣿	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	⣿	╧	▀	∩	

France

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	à	P	`	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	⣿	├	╙	π	≤
4	♦		$	4	D	T	d	t	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	⣿	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	⣿	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	⣿	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	⣿	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	⣿	╩	┌	Ω	·
B			+	;	K	°	k	é	ï	¢	½	⣿	╦	■	δ	√
C			,	<	L	ç	l	ù	î	£	¼	⣿	╠	▄	∞	n
D			−	=	M	§	m	è	ì	¥	¡	⣿	═	▌	ø	²
E			.	>	N	^	n	¨	Ä	₧	«	⣿	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	⣿	╧	▀	∩	

Germany

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	§	P	`	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	⣿	├	╙	π	≤
4	♦		$	4	D	T	d	t	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	⣿	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	⣿	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	⣿	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	⣿	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	⣿	╩	┌	Ω	·
B			+	;	K	Ä	k	ä	ï	¢	½	⣿	╦	▉	δ	√
C			,	<	L	Ö	l	ö	î	£	¼	⣿	╠	▄	∞	n
D			−	=	M	Ü	m	ü	ì	¥	¡	⣿	═	▌	ø	²
E			.	>	N	^	n	ß	Ä	₧	«	⣿	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	⣿	╧	▀	∩	

United Kingdom

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	@	P	`	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		£	3	C	S	c	s	â	ô	ú	⣿	├	╙	π	≤
4	♦		$	4	D	T	d	t	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	⣿	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	⣿	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	⣿	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	⣿	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	⣿	╩	┌	Ω	·
B			+	;	K	[	k	{	ï	¢	½	⣿	╦	▉	δ	√
C			,	<	L	\	l	|	î	£	¼	⣿	╠	▄	∞	n
D			−	=	M	]	m	}	ì	¥	¡	⣿	═	▌	ø	²
E			.	>	N	^	n	~	Ä	₧	«	⣿	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	⣿	╧	▀	∩	

Denmark 1

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	@	P	`	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	⣿	├	╙	π	≤
4	♦		$	4	D	T	d	t	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	⣿	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	⣿	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	⣿	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	⣿	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	⣿	╩	┌	Ω	·
B			+	;	K	Æ	k	æ	ï	¢	½	⣿	╦	▉	δ	√
C			,	<	L	Ø	l	ø	î	£	¼	⣿	╠	▄	∞	n
D			−	=	M	Å	m	å	ì	¥	¡	⣿	═	▌	ø	²
E			.	>	N	^	n	~	Ä	₧	«	⣿	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	⣿	╧	▀	∩	

Denmark 2

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	É	P	é	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	⣿	├	╙	π	≤
4	♦		$	4	D	T	d	t	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	⣿	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	⣿	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	⣿	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	⣿	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	⣿	╩	┌	Ω	·
B			+	;	K	Æ	k	æ	ï	¢	½	⣿	╦	▉	δ	√
C			,	<	L	Ø	l	ø	î	£	¼	⣿	╠	▄	∞	n
D			−	=	M	Å	m	å	ì	¥	¡	⣿	═	▌	ø	²
E			.	>	N	Ü	n	ü	Ä	₧	«	⣿	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	⣿	╧	▀	∩	

Sweden

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	É	P	é	p	Ç	É	á	▒	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	▒	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	▒	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	│	├	╙	π	≤
4	♦		¤	4	D	T	d	t	ä	ö	ñ	┤	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	╡	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	╢	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	╖	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	╕	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	╣	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	║	╩	┌	Ω	·
B			+	;	K	Ä	k	ä	ï	¢	½	╗	╦	█	δ	√
C			,	<	L	Ö	l	ö	î	£	¼	╝	╠	▄	∞	n
D			−	=	M	Å	m	å	ì	¥	¡	╜	═	▌	ø	²
E			.	>	N	Ü	n	ü	Ä	₧	«	╛	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	┐	╧	▀	∩	

Italy

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	@	P	ù	p	Ç	É	á	▒	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	▒	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	▒	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	│	├	╙	π	≤
4	♦		$	4	D	T	d	t	ä	ö	ñ	┤	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	╡	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	╢	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	╖	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	╕	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	╣	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	║	╩	┌	Ω	·
B			+	;	K	°	k	à	ï	¢	½	╗	╦	█	δ	√
C			,	<	L	\	l	ò	î	£	¼	╝	╠	▄	∞	n
D			−	=	M	é	m	è	ì	¥	¡	╜	═	▌	ø	²
E			.	>	N	^	n	ì	Ä	₧	«	╛	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	┐	╧	▀	∩	

Japan

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	@	P	`	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	⣿	├	╙	π	≤
4	♦		$	4	D	T	d	t	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	⣿	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	⣿	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	⣿	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	⣿	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	⣿	╩	┌	Ω	·
B			+	;	K	[	k	{	ï	¢	½	⣿	╦	▉	δ	√
C			,	<	L	¥	l	|	î	£	¼	⣿	╠	▄	∞	n
D			−	=	M	]	m	}	ì	¥	¡	⣿	═	▌	ø	²
E			.	>	N	^	n	~	Ä	₧	«	⣿	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	⣿	╧	▀	∩	

Spain 1

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	@	P	`	p	Ç	É	á	⣿	└	╨	α	=
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		₧	3	C	S	c	s	â	ô	ú	⣿	├	╙	π	≤
4	♦		$	4	D	T	d	t	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	⣿	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	⣿	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	⣿	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	⣿	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	⣿	╩	┌	Ω	·
B			+	;	K	¡	k	¨	ï	¢	½	⣿	╦	▉	δ	√
C			,	<	L	Ñ	l	ñ	î	£	¼	⣿	╠	▄	∞	n
D			−	=	M	¿	m	}	ì	¥	¡	⣿	═	▌	ø	²
E			.	>	N	^	n	~	Ä	₧	«	⣿	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	⣿	╧	▀	∩	

Spain 2

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	á	P	`	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	|	├	╙	π	≤
4	✦		$	4	D	T	d	t	ä	ö	ñ	┤	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	╡	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	╢	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	╖	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	╕	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	╣	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	║	╩	┌	Ω	·
B			+	;	K	¡	k	í	ï	¢	½	╗	╦	▉	δ	√
C			,	<	L	Ñ	l	ñ	î	£	¼	╝	╠	▄	∞	n
D			−	=	M	¿	m	ó	ì	¥	¡	╜	═	▌	ø	²
E			.	>	N	é	n	ú	Ä	₧	«	╛	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	┐	╧	▀	∩	

Norway

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	É	P	é	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	|	├	╙	π	≤
4	✦		¤	4	D	T	d	t	ä	ö	ñ	┤	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	╡	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	╢	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	╖	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	╕	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	╣	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	║	╩	┌	Ω	·
B			+	;	K	Æ	k	æ	ï	¢	½	╗	╦	▉	δ	√
C			,	<	L	Ø	l	ø	î	£	¼	╝	╠	▄	∞	n
D			−	=	M	Å	m	å	ì	¥	¡	╜	═	▌	ø	²
E			.	>	N	Ü	n	ü	Ä	₧	«	╛	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	┐	╧	▀	∩	

Latin America

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	á	P	ü	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	⣿	├	╙	π	≤
4	♦		$	4	D	T	d	t	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	⣿	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	⣿	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	⣿	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	⣿	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	⣿	╩	┌	Ω	·
B			+	;	K	¡	k	í	ï	¢	½	⣿	╦	▉	δ	√
C			,	<	L	Ñ	l	ñ	î	£	¼	⣿	╠	▄	∞	n
D			−	=	M	¿	m	ó	ì	¥	¡	⣿	═	▌	ø	²
E			.	>	N	é	n	ú	Ä	₧	«	⣿	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	⣿	╧	▀	∩	

Korea

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	@	P	`	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	⣿	├	╙	π	≤
4	♦		$	4	D	T	d	t	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	⣿	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	⣿	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	⣿	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	⣿	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	⣿	╩	┌	Ω	·
B			+	;	K	[	k	{	ï	¢	½	⣿	╦	▉	δ	√
C			,	<	L	₩	l	|	î	£	¼	⣿	╠	▄	∞	n
D			−	=	M	]	m	}	ì	¥	¡	⣿	═	▌	ø	²
E			.	>	N	^	n	~	Ä	₧	«	⣿	╬	▐	∈	■
F			/	?	O	_	o		Å	ƒ	»	⣿	╧	▀	∩	

Turkey

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	Ç	P	ç	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		₺	3	C	S	c	s	â	ô	ú	⣿	├	╙	π	≤
4	♦		é	4	D	T	d	t	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	⣿	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	⣿	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	⣿	╚	╪	Φ	°
9			)	9	I	Y	ı	y	ë	Ö	⌐	⣿	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	⣿	╩	┌	Ω	·
B			+	;	K	Ğ	k	ğ	ï	¢	½	⣿	╦	⣿	δ	√
C			,	i	L	Ö	l	ö	î	£	¼	⣿	╠	⣿	∞	n
D			−	=	M	Ş	m	ş	ì	¥	¡	⣿	═	⣿	ø	²
E			.	İ	N	Ü	n	ü	Ä	₧	«	⣿	╬	⣿	∈	■
F			/	?	O	_	o		Å	ƒ	»	⣿	╧	⣿	∩	

Legal

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	§	P	`	p	Ç	É	á	⣿	└	╨	α	≡
1			!	1	A	Q	a	q	ü	æ	í	⣿	┴	╤	ß	±
2			"	2	B	R	b	r	é	Æ	ó	⣿	┬	╥	Γ	≥
3	♥		#	3	C	S	c	s	â	ô	ú	⣿	├	╙	π	≤
4	♦		$	4	D	T	d	t	ä	ö	ñ	⣿	─	╘	Σ	⌠
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	⣿	┼	╒	σ	⌡
6	♠		&	6	F	V	f	v	å	û	ª	⣿	╞	╓	µ	÷
7			'	7	G	W	g	w	ç	ù	º	⣿	╟	╫	τ	≈
8			(	8	H	X	h	x	ê	ÿ	¿	⣿	╚	╪	Φ	°
9			)	9	I	Y	i	y	ë	Ö	⌐	⣿	╔	┘	Θ	•
A			*	:	J	Z	j	z	è	Ü	¬	⣿	╩	┌	Ω	·
B			+	;	K	°	k	©	ï	¢	½	⣿	╦	⣿	δ	√
C			,	<	L	´	l	®	î	£	¼	⣿	╠	⣿	∞	n
D			−	=	M	˝	m	†	ì	¥	¡	⣿	═	⣿	ø	²
E			.	>	N	¶	n	™	Ä	₧	«	⣿	╬	⣿	∈	■
F			/	?	O	_	o		Å	ƒ	»	⣿	╧	⣿	∩	

Old Hebrew

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
0				0	@	P	א	ג	Ç	É	á	▒	└	╨	α	≡
1			!	1	A	Q	ב	ס	ü	æ	í	▒	┴	╤	ß	±
2			"	2	B	R	ג	ע	é	Æ	ó	▒	┬	╥	Γ	≥
3	♥		#	3	C	S	ד	ף	â	ô	ú	▒	├	╙	π	≤
4	♦		$	4	D	T	ה	פ	ä	ö	ñ	▒	─	╘	Σ	⌠
5	♣	§	%	5	E	U	ו	ץ	à	ò	Ñ	▒	┼	╒	σ	⌡
6	♠		&	6	F	V	ז	צ	ª	û	ª	▒	╞	╓	µ	÷
7			'	7	G	W	ח	ק	ç	ù	º	▒	╟	╫	τ	≈
8			(	8	H	X	ט	ר	ê	ÿ	¿	▒	╚	╪	Φ	°
9			)	9	I	Y	י	ש	ë	Ö	⌐	▒	╔	┘	Θ	•
A			*	:	J	Z	ך	ת	è	Ü	¬	▒	╩	┌	Ω	·
B			+	;	K	[	כ	{	ï	¢	½	▒	╦	▒	δ	√
C			,	<	L	\	ל	|	î	£	¼	▒	╠	▒	∞	n
D			−	=	M	]	ם	}	ì	¥	¡	▒	═	▒	ø	²
E			.	>	N	^	מ	~	Ä	₧	«	▒	╬	▒	ε	■
F			/	?	O	_	ן		Å	ƒ	»	▒	╧	▒	∩	

Retrieving Access to Menu Mode

If you have selected the Minimum Value of the MenLock Function (MenLock = ALL), and you want to retrieve the access to Menu Mode, proceed as follows:

1. Make sure the printer is powered-off.
2. Press the Setup button while powering the printer on and maintain the button depressed until "Initializing..." is displayed.

TRADEMARK ACKNOWLEDGEMENTS

“CENTRONICS” is a trademark of Centronics Data Computer Corporation. “EPSON” and “EPSON ESC/P” and “EPSON/P2” are registered trademarks of SEIKO EPSON Corporation. “IBM”, “IBM XL 24e” and “IBM XL 24e + AGM” are trademarks of International Business Machines Corporation. “MS-DOS” is a trademark of Microsoft Corporation. “Windows”, “Windows 95”, “Windows 98“, “Windows ME“, “Windows 2000”, “Windows XP” and “Windows NT” are trademarks of Microsoft Corporation. “DEC” and “DEC PPL 2” are trademarks of Digital Equipment Corporation.