Compuprint

9065 - 9080 - 10300

DEC EMULATION

ADDENDUM

78413212-001

Addendum to 9065-9080-10300 User Manual.

The **DEC PPL2** emulation can be selected in the following way:

1) Press **PROGRAM** key. The message "**PRINT OUT? NO**" will appear.
2) Press **DOWN ARROW** key until the message "**CONFIG MENU NO**" will appear.
3) Press **RIGHT ARROW** key. The message "**CONFIG MENU YES**" will appear.
4) Press **DOWN ARROW** key until the message "**EMUL. OPTIONS**" will appear.
5) Press **RIGHT ARROW** key. The message "**EMUL. EPSON LQ**" will appear.
6) Press **RIGHT ARROW** key until the message "**EMUL. DEC PPL2**" will appear.

At this point, if you press the **PROGRAM** key, the **DEC PPL2** emulation will be selected.
Otherwise, if you press **DOWN ARROW** key, you will access the options related to **DEC PPL2** emulation, that is:

1) "**G0 C-S US ASCII**" G0 Character Set
2) "**UP C-S DEC SUPP**" User Preference Supplemental Character Set
3) "**AUTO CR YES**"
4) "**AUTO LF NO**"
5) "**AUTO WRAP YES**"

The possible values for each option can be selected pressing the **RIGHT ARROW** key.
When you have selected the desired value for each option, press the **PROGRAM** key.

1) **G0 Character Set.**

"**G0 C-S US ASCII**" US ASCII
"**G0 C-S BRITISH**" British
"**G0 C-S FINNISH**" DEC Finnish
"**G0 C-S FRENCH**" French
"**G0 C-S FR/CAN**" DEC French-Canadian
"**G0 C-S GERMAN**" German
"**G0 C-S ISO ITAL**" ISO Italian
"**G0 C-S JIS ROM**" JIS Roman
"**G0 C-S DNOR/DAN**" DEC Norwegian/Danish
"**G0 C-S ISO SPAN**" ISO Spanish
"**G0 C-S SWEDISH**" DEC Swedish
"**G0 C-S NOR/DAN**" Norwegian/Danish
"**G0 C-S DUTCH**" DEC Dutch
"**G0 C-S SWISS**" DEC Swiss
"**G0 C-S PORTUG**" DEC Portuguese
"**G0 C-S LEGAL**" Legal
"**G0 C-S DEC SUPP**" DEC Supplemental
"**G0 C-S SPEC.GRA**" DEC Special Graphics
"**G0 C-S TECNICAL**" DEC Technical
"**G0 C-S 7BIT HEB**" DEC 7-Bit Hebrew
"**G0 C-S HEBR SUP**" DEC Hebrew Supplemental
"**G0 C-S 8BIT GRES**" DEC 8-Bit Greek Supplemental
"**G0 C-S 7BIT TUR**" DEC 7-Bit Turkish
"**G0 C-S 8BIT TURS**" DEC 8-Bit Turkish Supplemental
"**G0 C-S JIS KATA**" JIS Katakana

2) **User Preference Supplemental Character Set.**

"**UP C-S DEC SUPP**" DEC Supplemental
"**UP C-S SPEC.GRA**" DEC Special Graphics
"**UP C-S TECNICAL**" DEC Technical
"**UP C-S 7BIT HEB**" DEC 7-Bit Hebrew
"**UP C-S HEBR SUP**" DEC Hebrew Supplemental
"**UP C-S 8BIT GRES**" DEC 8-Bit Greek Supplemental
"**UP C-S 7BIT TUR**" DEC 7-Bit Turkish
"**UP C-S 8BIT TURS**" DEC 8-Bit Turkish Supplemental
"**UP C-S JIS KATA**" JIS Katakana
"**UP C-S ISO LA-1S**" ISO Latin-1 Supplemental
"**UP C-S ISO LA-2S**" ISO Latin-2 Supplemental
"**UP C-S ISO LA-5S**" ISO Latin-5 Supplemental
"**UP C-S ISO LA-9S**" ISO Latin-9 Supplemental
"**UP C-S ISO HEBS**" ISO Latin-Hebrew Supplemental
"**UP C-S ISO LAGRS**" ISO Latin-Greek Suplemental
"**UP C-S ISO CYRS**" ISO Latin-Cyrillic Supplemental

3) **Automatic Carriage Return**.

"**AUTO CR YES**"
"**AUTO CR NO**"

4) **Automatic Line Feed**.

"**AUTO LF NO**"
"**AUTO LF YES**"

5) **Automatic Wrap.**

"**AUTO WRAP YES**"
"**AUTO WRAP NO**"

For what concerns the **USER MACRO** options:

- **LINE SP.** can assume the following additional values, selectable in all emulations: **2 LPI**, **3 LPI**, **4 LPI** and **10 LPI**.

- **PITCH** can assume the following additional values, selectable only when DEC PPL2 emulation is active: **6.6 CPI**, **8.2 CPI**, **9 CPI**, **13.2CPI**, **16.5CPI** and **18 CPI**.

DEC PPL2 Quick Reference

This section contains basic information on the DEC PPL2 commands supported in the Compuprint 9065, 9080 and 10300 printers.

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

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.

Characters used in control functions appear in monospaced type. 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

Code	Description
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*

Mnemonic	Function	Command	Remarks
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*	
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

Mnemonic	Function	Command	Remarks
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 1/720 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 (in 1/12 in.) P_{n2} = paper width (in 1/12 in.)
DECSTBM	Set Top and Bottom Margins	*CSI* P_{n1}*;* P_{n2} *r*	P_{n1} = top margin P_{n2} = bottom margin

Type Size and Spacing, Managing Implicit Cursor Motion

Mnemonic	Function	Command	Remarks
DECAWM	Autowrap Mode	*CSI ? 7 h*	Set autowrap mode
		CSI ? 7 l	Reset autowrap mode
DECCRNLM	Carriage Return/ New Line Mode	*CSI ? 40 h*	CR acts as New Line
		CSI ? 40 l	CR acts as Carriage Return
DECPSP	Proportional Spacing Mode	*CSI ? 27 h*	Sets proportional spacing mode
		CSI ? 27 l	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: 13.2 CPI P_s = 4: 16.5 CPI P_s = 5: 5 CPI P_s = 6: 6 CPI P_s = 7: 6.6 CPI P_s = 8: 8.25 CPI P_s = 9: 15 CPI P_s = 11: 17.1 CPI P_s = 12: 8.55 CPI P_s = 13: 18 CPI P_s = 14: 9 CPI P_s = 15: 10 CPI P_s = 16: 20 CPI
DECVERP	Set Vertical Pitch	*CSI P_s z*	P_s = 0: 6 LPI P_s = 1: 6 LPI P_s = 2: 8 LPI P_s = 3: 12 LPI P_s = 4: 2 LPI P_s = 5: 3 LPI P_s = 6: 4 LPI P_s = 7: 10 LPI P_s = 10: same as PS =1 P_s = 21: 4 LPcm* P_s = 22: 2 LPcm P_s = 23: 1 LPcm P_s = 10-17 same as 0-7; 21-23 same as 31-33

Mnemonic	Function	Command	Remarks
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 Ps m*	P_s = 10 : Courier P_s = 11 : Courier P_s = 12 : Gothic P_s = 13 : Prestige P_s = 14 : Script P_s = 15 : Courier P_s = 16 : Presentor P_s = 17 : Optional card font (not available) P_s = 18 : OCR-A P_s = 19 : OCR-B P_s = ?12 : Data Block

Font Management and Attribute Selection (cont.)

Mnemonic	Function	Command	Remarks
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 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, subscript off P_s = ?5: Subscript on, superscript off P_s = ?6: Overline on P_s = ?24: Superscript and subscript off P_s = ?26: Overline off

Mnemonic	Function	Command	Remarks
DECDLD	Download Font	*DCS parameter_string { D ... D ST*	See the *Programming Reference Manual*
DECDEN	Printing Density Selection	*CSI Ps " z*	P_s = 0 or 1: Select draft P_s = 2: Select letter quality P_s = 3: Select best draft P_s = 4: Select near letter quality P_s = 5: Select high speed draft

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* 7-bit environment: *ESC N*	Take the next character from G2
SS3	Single Shift 3	*C1 Control Code* 7-bit environment: *ESC O*	Take the next character from G3
LS0	Locking Shift 0 (or Shift In)	SI	Invoke G0 into GL

Mnemonic	Function	Command	Remarks
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
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 (Not supported)
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.(Not supported)

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 (Not supported) Reset (Not supported)
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 (Not supported)

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: No change, eject paper
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 (Not supported)
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 (Not supported)
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 (not supported) 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 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 D-12. P_{s2}: ignored. P_{n3}: horizontal grid size - overrides P_{s1} for horizontal grid size - aspect ratio unchanged. See Table D-13.
sixel data	Picture data	Includes sixel printable characters and sixel control codes. See Table D-14.
ST	String Terminator	Exit Sixel Graphics mode and return to text mode.

TABLE D-12 Sixel Graphics Protocol Selector Ps1

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.

TABLE D-13 Sixel Graphics Grid Size defined by P_{n3}

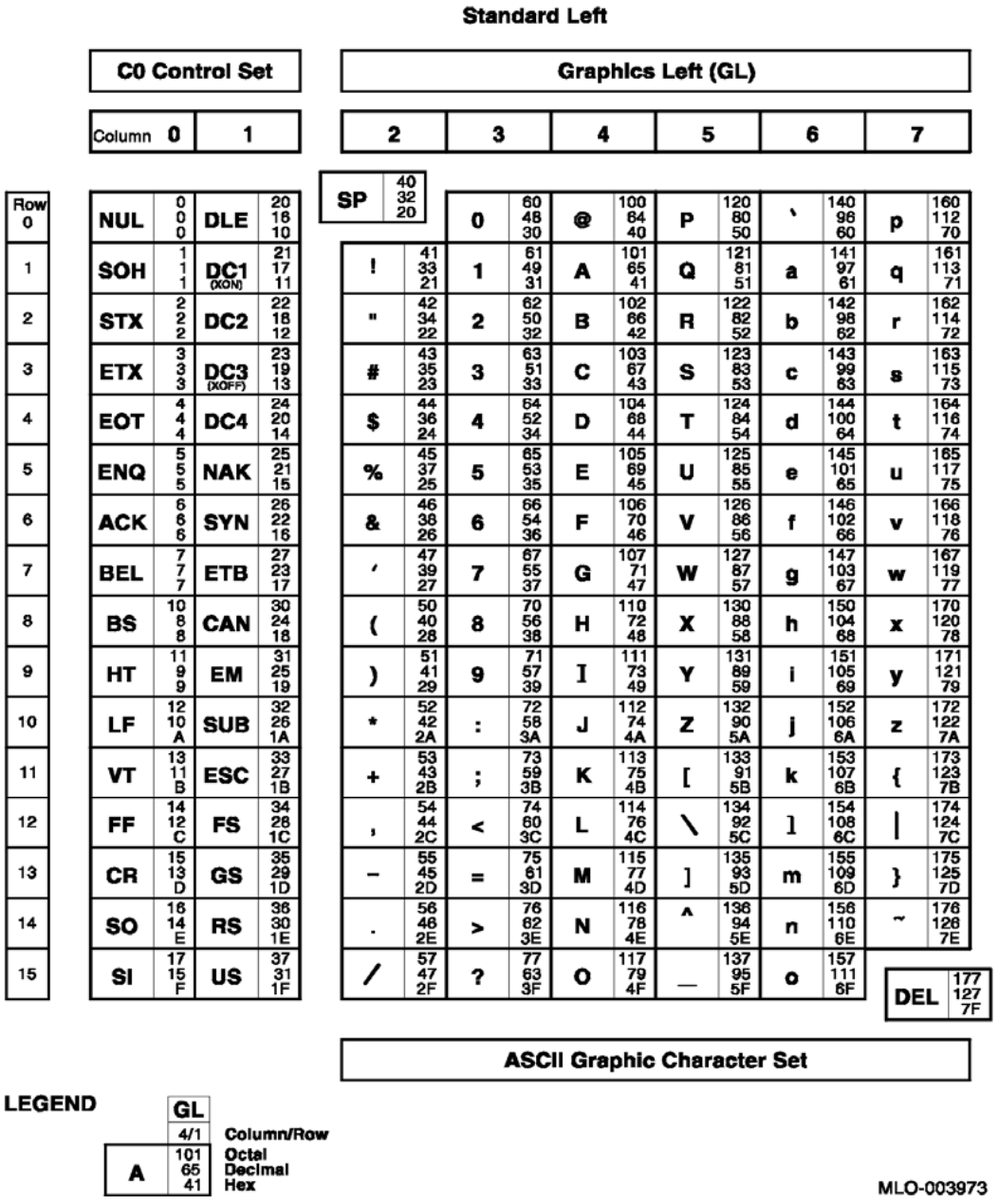
Pn 3 Value	HGS:VGS (dpi) by Aspect Ratio (defined by P_{s1})			
	1:1	2:1	2.5:1	5:1
0 or none	No change to HGS and VGS defined by P_{s1}			
1, 2	360:360	360:180	360:144	360:72
3, 4	180:180	180:90	180:72	180:36
5, 6, 7	144:144	144:72	180:72	180:36
8, 9	90:90	90:45	90:36	180:36
10 - 15	72:72	72:36	90:36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

TABLE D-14 Sixel Graphics Control Codes

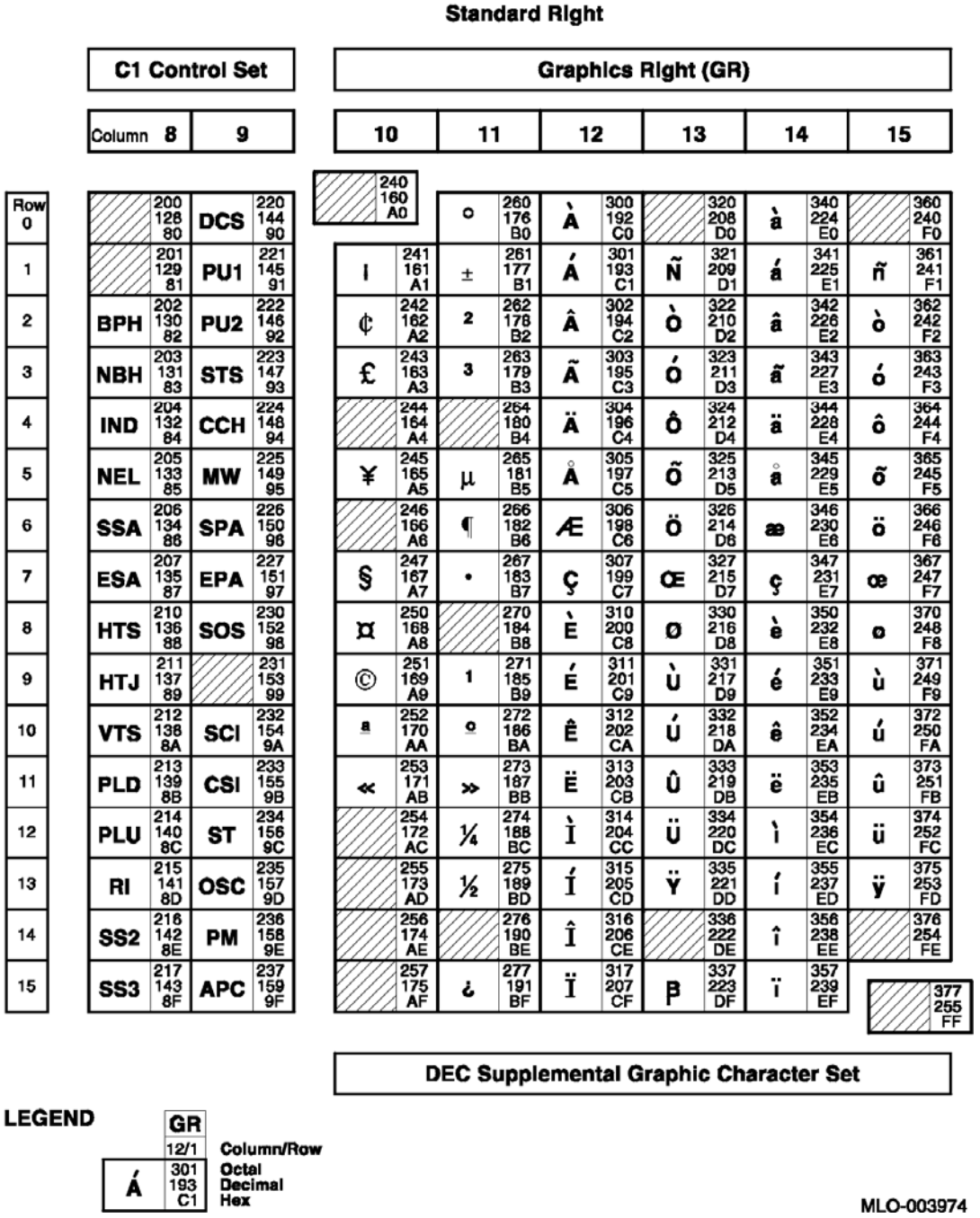
Mnemonic	Function	Command	Remarks
DECGRA	Set Raster Attributes	" (2/2)	Defines the pixel aspect ratio. Followed by parameters P_{n1} ; P_{n2} ; P_{n3}; P_{n4} P_{n1}: Pixel aspect ratio numerator (A) P_{n2}: Pixel aspect ratio denominator (R), where 0 < A/R < 1.5 corresponds to 1:1 1.5 $\leq$ A/R << 2.25 corresponds to 2:1 2.25 $\leq$ A/R << 3.75 corresponds to 2.5:1 3.75 $\leq$ 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

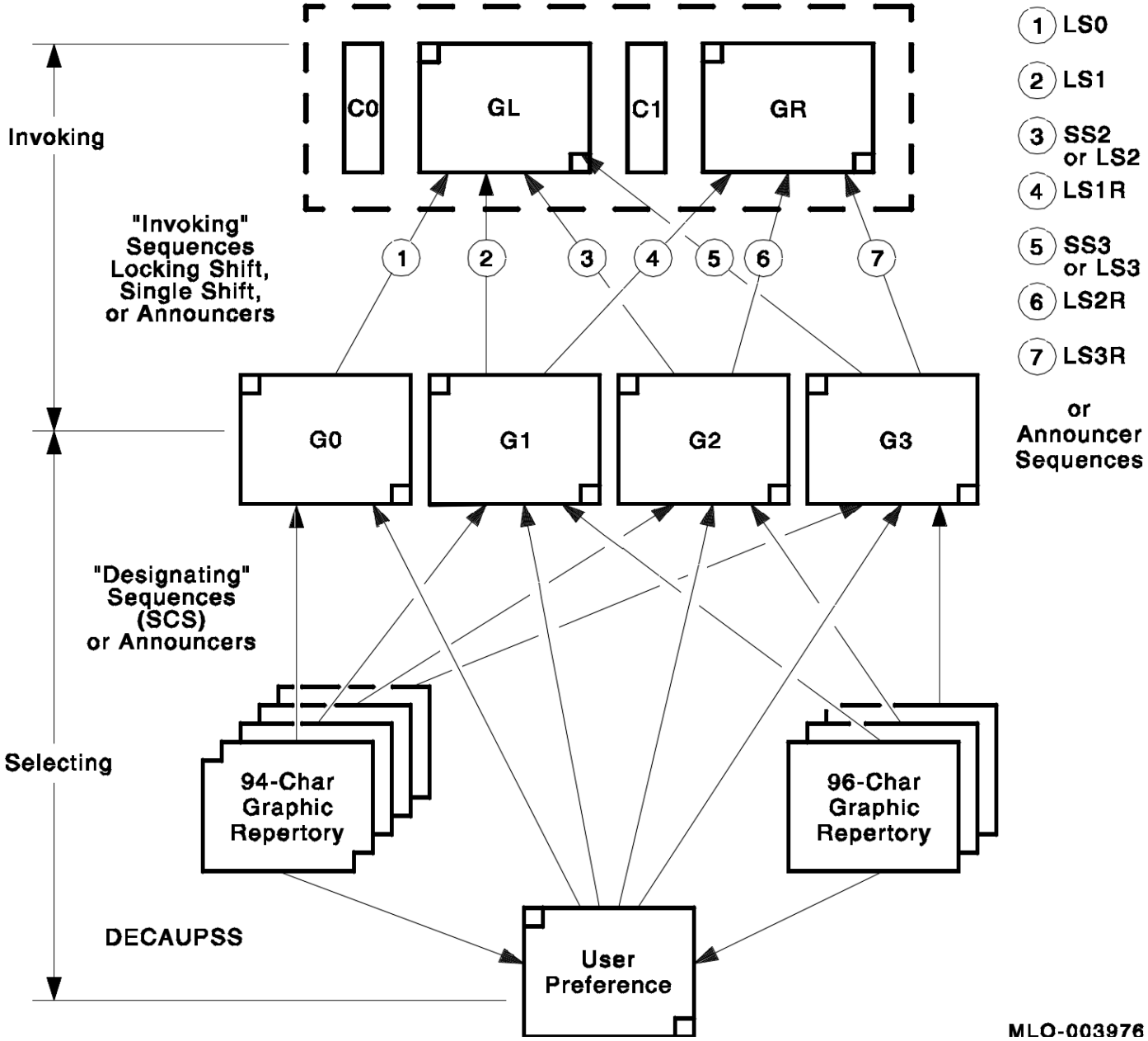
Standard 8-bit Code Table (Left Half)



Standard 8-bit Code Table (Right Half)



Designating and Invoking Character Sets



National Replacement Character sets

Location	US ASCII	National Replacement Character Sets						
		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	_

Location	US	National Replacement Character Sets						
	ASCII	DEC Norw.-Danish	ISO Spanish	DEC Swedish	Norw.-Danish	DEC Dutch	DEC Swiss	DEC Portu-guese
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	

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	280 176 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

MLO-003982

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	80 48 30	208 176 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	81 49 31	281 177 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	82 50 32	282 178 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	83 51 33	283 179 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	84 52 34	284 180 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	85 53 35	285 181 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	86 54 36	286 182 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	87 55 37	287 183 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

MLO-003983

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	280 176 B0	●	100 64 40	300 192 C0	P	120 80 50	320 208 D0	◆	140 96 60	340 224 E0	— SCAN 9	160 112 70	360 240 F0	Row 0
1	!	41 33 21	241 161 A1	1	61 49 31	281 177 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	282 178 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	283 179 B3	C	103 67 43	303 195 C3	S	123 83 53	323 211 D3	FF	143 99 63	343 227 E3	SCAN 6	163 115 73	363 243 F3	3
4	$	44 36 24	244 164 A4	4	64 52 34	284 180 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	285 181 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	286 182 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	287 183 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

MLO-003984

DEC Technical 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	252 176 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	Row 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	GR	
	4/1	12/1	Column/Row
α	101 65 41	301 193 C1	Octal Decimal Hex

MLO-003985

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	°		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

MLO-004000

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	ן	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

MLO-004002

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	נ		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
361 — Octal
193 — Decimal
C1 — Hex

MLO-004003

DEC 7-Bit Turkish 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	İ	100 64 40	300 192 C0	P	120 80 50	320 208 D0	ğ	140 96 60	340 224 E0	p	160 112 70	360 240 F0	Row 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

MLO-006605

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	Ÿ	135 93 5D	335 221 DD	í	155 109 6D	355 237 ED	ÿ	175 125 7D	375 253 FD	13
14	İ	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

MLO-006606

DEC 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				°	60 48 30	260 176 B0	¨ ι	100 64 40	300 192 C0		120 80 50	320 208 D0	¨ υ	140 96 60	340 224 E0		160 112 70	360 240 F0	Row 0
1	¡	41 33 21	241 161 A1	±	61 49 31	261 177 B1	A	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	B	102 66 42	302 194 C2	P	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	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	µ	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	¶	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		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	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	ª	52 42 2A	252 170 AA	º	72 58 3A	272 186 BA	K	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	M	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	N	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	O	117 79 4F	317 207 CF	́ ο	137 95 5F	337 223 DF	ο	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

MLO-006607

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	ľ	65 53 35	265 181 B5	Ĺ	105 69 45	305 197 C5	Ő	125 85 55	325 213 D5	ĺ	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	Č	110 72 48	310 200 C8	Ř	130 88 58	330 216 D8	č	150 104 68	350 232 E8	ř	170 120 78	370 248 F8	8
9	Š	51 41 29	251 169 A9	š	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	ť	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	Ě	114 76 4C	314 204 CC	Ü	134 92 5C	334 220 DC	ě	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	Ž	56 46 2E	256 174 AE	ž	76 62 3E	276 190 BE	Î	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	Ď	117 79 4F	317 207 CF	ß	137 95 5F	337 223 DF	ď	157 111 6F	357 239 EF	˙	177 127 7F	377 255 FF	15

LEGEND

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

MLO-006606

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	Ѓ	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	ѓ	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	Ј	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	ј	170 120 78	370 248 F8	8
9	Љ	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	љ	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
C	101 65 41	301 193 C1	Octal Decimal Hex

MLO-006609

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	ΐ	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	Row 0
1	‘	41 33 21	241 161 A1	±	61 49 31	261 177 B1	Α	101 65 41	301 193 C1	Ρ	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	̔	62 50 32	262 178 B2	Β	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	̕	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	́	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	̓Α	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	̓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	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		52 42 2A	252 170 AA	̓Ι	72 58 3A	272 186 BA	Κ	112 74 4A	312 202 CA	¨Ι	132 90 5A	332 218 DA	κ	152 106 6A	352 234 EA	¨ι	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	¨υ	173 123 7B	373 251 FB	11
12	¬	54 44 2C	254 172 AC	̓Ο	74 60 3C	274 188 BC	Μ	114 76 4C	314 204 CC	́α	134 92 5C	334 220 DC	μ	154 108 6C	354 236 EC	́ο	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	́ε	135 93 5D	335 221 DD	ν	155 109 6D	355 237 ED	́υ	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	́η	136 94 5E	336 222 DE	ξ	156 110 6E	356 238 EE	́ω	176 126 7E	376 254 FE	14
15	—	57 47 2F	257 175 AF	̓Ω	77 63 3F	277 191 BF	Ο	117 79 4F	317 207 CF	́ι	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

MLO-006610

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
Á	301 193 C1

Column/Row
Octal
Decimal
Hex

MLO-006811

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	▉	┬	Ê	Õ	‗
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	¡	¢	═	¦	Ý	²
E	.	>	N	^	n	~	Ä	×	«	¥	╬	Ì	¯	▪
F	/	?	O	_	o		Å	ƒ	»	┐	¤	▀	´	