

**Programmer's Manual**  
**DEC PPL2**  
for LA printers

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# 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  |
|----------------------|--|
| <i>ESC</i>           | Escape (1/11), introduces an escape sequence.  |
| <i>CSI</i>           | Control Sequence Introducer (9/11), introduces a control sequence. CSI can also be represented by the equivalent escape sequence <i>ESC [</i> (1/11 5/11).   |
| <i>DCS</i>           | Device Control String (9/0), introduces a device control string. DCS can also be represented by the equivalent escape sequence <i>ESC P</i> (1/11 5/0)   |
| <i>ST</i>            | String Terminator (9/12) indicates the end of a control string. ST can also be represented by the equivalent escape sequence <i>ESC \</i> (1/11 5/12).   |
| <i>P<sub>n</sub></i> | Numeric parameter, or number of units that specify a distance or quantity pertaining to the escape sequence, control function or control string.   |
| <i>P<sub>s</sub></i> | 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>I<sub>n</sub></i> | Intermediate character - component of an escape sequence, control sequence or control string.  |
| <i>F</i>             | 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                       | <i>C1 Control Code</i><br>7-bit environment: <i>ESC H</i>                           |
| IND      | Index                                   | 8/4                       | <i>C1 Control Code</i><br>7-bit environment: <i>ESC D</i>                           |
| NEL      | Next Line                               | 8/5                       | <i>C1 Control Code</i><br>7-bit environment: <i>ESC E</i>                           |
| PLD      | Partial Line Down                       | 8/11                      | <i>C1 Control Code</i><br>7-bit environment: <i>ESC K</i><br>Advance paper 1/12 in. |
| PLU      | Partial Line Up                         | 8/12                      | <i>C1 Control Code</i><br>7-bit environment: <i>ESC L</i><br>Reverse paper 1/12 in. |
| VTs      | Vertical Tab Set, at current position   | 8/10                      | <i>C1 Control Code</i><br>7-bit environment: <i>ESC J</i>                           |
| 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)  |

| <b>Mnemonic</b> | <b>Function</b>                       | <b>Command</b>            | <b>Remarks</b>  |
|-----------------|---------------------------------------|---------------------------|---|
| 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<br>$P_s=1$ : Clear vert. tab at active position |
| PLD             | Partial Line Down                     | 8/11                      | <i>C1 Control Code</i><br>7-bit environment: <i>ESC K</i><br>Advance paper 1/12 in.           |
| PLU             | Partial Line Up                       | 8/12                      | <i>C1 Control Code</i><br>7-bit environment: <i>ESC L</i><br>Reverse paper 1/12 in.           |
| VTS             | Vertical Tab Set, at current position | 8/10                      | <i>C1 Control Code</i><br>7-bit environment: <i>ESC J</i>                                     |
| DECCAHT         | Clear All Horizontal Tabs             | ESC 2                     |   |
| DECAVT          | 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                     |   |

| <b>Mnemonic</b> | <b>Function</b>              | <b>Command</b>            | <b>Remarks</b>  |
|-----------------|------------------------------|---------------------------|---|
| TBC             | Tab Clear                    | $CSI P_s ; \dots ; P_s g$ | $P_s=0$ : Clear horiz. Tab at active position<br>$P_s=1$ : Clear vert. tab at active position<br>$P_s=2$ or $3$ : Clear all horiz. tabs<br>$P_s=4$ : 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 <sub>n</sub> t                      | P <sub>n</sub> = number of lines per pages   |
| DECVPLA  | Set Vertical Page Length Alignment | CSI P <sub>n1</sub> ; P <sub>n2</sub> - u | P <sub>n1</sub> = Position of the origin from top of form (in 1/72 in.)<br>P <sub>n2</sub> = Paper length in 1/720 in. |
| DECSLRM  | Set Left and Right Margins         | CSI P <sub>n1</sub> ; P <sub>n2</sub> s   | P <sub>n1</sub> = left margin<br>P <sub>n2</sub> = right margin  |
| DECHPWA  | Set Page Width Alignment           | CSI P <sub>n1</sub> ; P <sub>n2</sub> " s | P <sub>n1</sub> * = origin<br>P <sub>n2</sub> * = paper width  |
| DECSTBM  | Set Top and Bottom Margins         | CSI P <sub>n1</sub> ; P <sub>n2</sub> r   | P <sub>n1</sub> = top margin<br>P <sub>n2</sub> = 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<br>CSI ? 7 l                        | Set autowrap mode<br>Reset autowrap mode   |  |
| DECCRNLM | Carriage Return/<br>New Line Mode | CSI ? 40 h<br>CSI ? 40 l                      | CR acts as New Line<br>CR acts as Carriage Return  |  |
| DECPSP   | Proportional Spacing Mode         | CSI ? 27 h<br>CSI ? 27 l                      | Sets proportional spacing mode<br>Resets proportional spacing mode   |  |
| DECSHORP | Set Horizontal Pitch              | CSI P <sub>s</sub> w                          | P <sub>s</sub> = 0: 10 CPI<br>P <sub>s</sub> = 1: 10 CPI<br>P <sub>s</sub> = 2: 12 CPI<br>P <sub>s</sub> = 3: 13.3 CPI<br>P <sub>s</sub> = 4: 16.5 CPI<br>P <sub>s</sub> = 5: 5 CPI<br>P <sub>s</sub> = 6: 6 CPI<br>P <sub>s</sub> = 7: 6.65 CPI   | P <sub>s</sub> = 8: 8.25 CPI<br>P <sub>s</sub> = 9: 15 CPI<br>P <sub>s</sub> = 11: 17.1 CPI<br>P <sub>s</sub> = 12: 8.6 CPI<br>P <sub>s</sub> = 13: 18 CPI<br>P <sub>s</sub> = 14: 9 CPI<br>P <sub>s</sub> = 15: 10 CPI<br>P <sub>s</sub> = 16: 20 CPI |
| GSM      | Graphic Size Modification         | CSI P <sub>n1</sub> ;<br>P <sub>n2</sub> SP B | P <sub>n1</sub> = 100: Normal height characters<br>P <sub>n1</sub> = 200: Double height<br>P <sub>n1</sub> = 300: Triple height<br>P <sub>n1</sub> = 400: Quadruple height<br>P <sub>n2</sub> = 100: Normal width characters<br>P <sub>n2</sub> = 200: Double width<br>P <sub>n2</sub> = 300: Triple width<br>P <sub>n2</sub> = 400: Quadruple width |  |
| LNM      | Line Feed/<br>New Line Mode       | CSI 2 0 h<br>CSI 2 0 l                        | LF acts as new line.<br>LF acts as line feed.  |  |

\* LPcm = Lines per centimeter

## Font Management and Attribute Selection

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

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

## Selecting Character Sets

| Mnemonic | Function                                      | Command  | Remarks   |
|----------|---|--|---|
| ASCEF    | Announce Sub-set of Code Extension Facilities | ESC SP L<br>ESC SP M<br>ESC SP N                   | ASCII in G0 and GL.<br>ISO Latin-1 in G1 and GR.<br>Same as ESC SP L<br>ASCII in G0 and GL. |
| DECAUPSS | Assign User Preference Supplemental Set       | DCS $P_s$ ! u<br>D ... D ST                        | $P_s = 0$ : 94-char.set<br>$P_s = 1$ : 96-char.set<br>D ... D:SCS designating sequence.     |
| SS2      | Single Shift 2                                | C1 Control Code<br>7-bit environment: <i>ESC N</i> | Take the next character from G2   |
| SS3      | Single Shift 3                                | C1 Control Code<br>7-bit environment: <i>ESC O</i> | Take the next character from G3   |
| 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 <sub>1</sub> I <sub>2</sub> F | I <sub>1</sub> = "(": Invoke 94-char.set into G0<br>I <sub>1</sub> = ")": Invoke 94-char.set into G1<br>I <sub>1</sub> = "*": Invoke 94-char.set into G2<br>I <sub>1</sub> = "+": Invoke 94-char.set into G3<br>I <sub>1</sub> = "-": Invoke 96-char.set into G1<br>I <sub>1</sub> = ".": Invoke 96-char.set into G2<br>I <sub>1</sub> = "/": Invoke 96-char.set into G3<br>I <sub>2</sub> F = final characters from "SCS Final Characters". |

## SCS Final Characters

| Character Set           | I <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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      |
| Downloaded 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 P <sub>s</sub> c   | Request Device Attributes Report.<br>P <sub>s</sub> must be 0.  |
| DAR      | Device Attributes Report           | ESC [ ? P <sub>s1</sub> ; P <sub>s2</sub> ; ... ; P <sub>sn</sub> c<br>(printer to host)                               | P <sub>s1</sub> = 72<br>P <sub>s2</sub> -P <sub>sn</sub> describe extensions. See the<br>Programming Supplement.  |
| DA2      | Secondary Device Attributes        | CSI > P <sub>s</sub> c   | P <sub>s</sub> must be 0.   |
| DA2R     | Secondary Device Attributes Report | ESC [ > P <sub>s1</sub> ; P <sub>s2</sub> ; P <sub>s3</sub> ; P <sub>s4</sub> ; P <sub>s5</sub> c<br>(printer to host) | P <sub>s1</sub> = 69<br>P <sub>s2</sub> = firmware revision x 10<br>P <sub>s3</sub> = 0 (or 1 <i>reserved</i> )<br>P <sub>s4</sub> = 20<br>P <sub>s5</sub> = firmware edit revision |

## Reports (cont.)

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

## Miscellaneous

| Mnemonic | Function                        | Command  | Remarks  |
|----------|---------------------------------|--|--|
| BEL      | Bell                            | 0/7  | C0 Control Code  |
| DECSCL   | Select Conformance Level        | CSI Ps1 " p  | P <sub>s</sub> = 0: reset native level<br>P <sub>s</sub> = 71: reset - DEC PPL1<br>P <sub>s</sub> = 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<br>CSI ? 58 l                                   | Deprecated function  |
| ROCS     | Return from Other Coding System | ESC % @  | Return to DEC PPL2 mode  |
| SOCS     | Select Other Coding System      | ESC % =<br>ESC % SP 2                                      | IBM Proprinter Protocol<br>EPSON Protocol  |
| CRM      | Control Representation Mode     | CSI 3 h<br>CSI 3 l   | Print hex representation for all characters<br>Reset   |
| DECFNVR2 | Load Factory NVR Settings       | CDS P <sub>s</sub> ; P <sub>s2</sub> " s<br>data_string ST | P <sub>sl</sub> = 0: omitted, default<br>P <sub>sl</sub> = 1: Store current state (data ignored)<br>P <sub>sl</sub> = 2: Modify with following data, store<br>P <sub>sl</sub> = 3: Load NVRAM, modify, store<br>P <sub>sl</sub> = 4: Load Factory Defaults, modify, store<br>P <sub>s2</sub> = 0: omitted, default<br>P <sub>s2</sub> = 1: data is ASCII encoded setup<br>P <sub>sl</sub> ; P <sub>s2</sub> ; ... ; P <sub>si</sub> ; ...<br>P <sub>si</sub> : index of the value for parameter i<br>P <sub>si</sub> = 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<br>$P_s = 1-3$ : Tray n (reserved)<br>$P_s = 4$ : Front1 Tractor feeding<br>$P_s = 5$ : Front2 Tractor feeding<br>$P_s = 99$ : Manual feed |
| DECSITF          | Select Input Tray Failover     | CSI $P_{s1}$ ; $P_{s2}$ ; ... ; $P_{sn}$ SP w | $P_{s1} = 0$ : Disable all composite input trays<br>$P_{s1} = 1$ : Define composite tray n<br>$P_{s2}-P_{sn} = n$ : Add tray n to the composite definition                    |
| DECPHGC          | Printhead Gap Control          | CSI $P_s$ - s                                 | $P_s = 0$ : Automatic Gap Control (AGC)<br>$P_s = 1-5$ : Programmable Copy Control mode(PCC) - number of copies   |
| DECUPM           | Unidirectional Print Mode      | CSI ? 41 h<br>CSI ? 41 l                      | Selects unidirectional printing<br>Selects bi-directional printing  |
| SnC1R<br>/DEC*C1 | C1 Transmit<br>/Receive        | ESC SP 6<br>ESC SP 7<br>ESC SP F<br>ESC SP G  | Process 7-bit, drop 8th but<br>Process 7-bit and 8-bit<br>Transmit 8-bit as 7-bit equivalents<br>Transmit 8-bit (not supported)   |

## Barcode Printing

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

## Barcode Printing (cont.)

| Mnemonic | Function         | Command                            | Remarks  |
|----------|------------------|------------------------------------|--|
|          | <b>Parameter</b> | <b>Description</b>                 | <b>Value</b>   |
|          | P <sub>n3</sub>  | Width of quiet zones in decipoints | Supported value: 180.  |
|          | P <sub>n4</sub>  | Width of wide bars in decipoints   | For EAN, UPC, supported values are in the range 20 to 158 (default is 25).<br>P <sub>n4</sub> is not used for Code 93, MSI 10/10 and Code 128 systems.<br>Postnet bar code style is fixed to 0,0217" for bars and to 0,0255" for spaces. Pitch is 21,18 bars/inch. |
|          | P <sub>n5</sub>  | Ignored                            |  |
|          | P <sub>n6</sub>  | Height of bars in decipoints       | Min = 60<br>Max = 2400<br>Default = 120  |
|          | P <sub>n7</sub>  | Ignored                            |  |
|          | P <sub>n8</sub>  | 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 <sub>s9</sub>  | Human Readable Characters          | 0, 1: No HRC<br>2, 3, 4: Print HRC in OCR B<br>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  |
|---|--------------------------|--|
| <b>DCS</b>  | <b>String Introducer</b> |  |
| P <sub>s1</sub> ; P <sub>n2</sub> ; P <sub>n3</sub> q | Protocol Selector        | P <sub>s1</sub> : macro parameter, select horizontal grid size and pixel aspect ratio. See Table "Sixel Graphics Protocol Selector P <sub>s1</sub> " (below).<br>P <sub>s2</sub> : ignored.<br>P <sub>n3</sub> : horizontal grid size - overrides P <sub>s1</sub> for horizontal grid size - aspect ratio unchanged. See Table "Sixel Graphics Grid Size defined by P <sub>n3</sub> " (next page). |
| sixel data  | Picture data             | Includes sixel printable characters and sixel control codes.<br>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<sub>s1</sub>

| 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<sub>n3</sub> or DECGRAs.



## Sixel Graphics Grid Size defined by $P_{n3}$

| <b>P<sub>n3</sub> Value</b> | <b>HGS:VGS (dpi) by Aspect Ratio (defined by <math>P_{s1}</math>)</b> |         |         |        |
|-----------------------------|---|---------|---------|--------|
|                             | 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

| <b>Mnemonic</b> | <b>Function</b>            | <b>Command</b> | <b>Remarks</b>  |
|-----------------|----------------------------|----------------|---|
| DECGRA          | Set Raster Attributes      | " (2/2)        | Defines the pixel aspect ratio. Followed by parameters<br>$P_{n1}$ ; $P_{n2}$ ; $P_{n3}$ ; $P_{n4}$<br>$P_{n1}$ : Pixel aspect ratio numerator (A)<br>$P_{n2}$ : Pixel aspect ratio denominator (R),<br>where<br>$0 < A/R < 1.5$ corresponds to 1:1<br>$1.5 \leq A/R < 2.25$ corresponds to 2:1<br>$2.25 \leq A/R < 3.75$ corresponds to 2.5:1<br>$3.75 \leq A/R$ corresponds to 5:1<br>$P_{n3}$ 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.  |

| <b>Mnemonic</b> | <b>Function</b>           | <b>Command</b>    | <b>Remarks</b>   |
|-----------------|---------------------------|-------------------|--|
| 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.<br>Followed by parameters<br>$P_c ; P_u ; P_x ; P_y ; P_z$<br>$P_c$ : Color number (0-255)<br>$P_u$ : Universal coordinate system selector: 1=HLS, 2=RGB<br>$P_x, P_y, P_z$ : 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.<br>The printer subtracts the offset (3F hexadecimal) from the received code, assigning each of the remaining low-order six bits to a grid position:<br>LSB = top pixel<br>MSB = bottom pixel<br>Examples: ? (3/15): blank character<br>@ (4/0): print only top pixel<br>A (4/1) : print second-from-top pixel<br>~ (7/15): print one full column |

# Standard 8-bit Code Table (Left Half)

| C0 Control Set |    |    |    | Standard Left      |    |   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |   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| Column 01      |    |    |    | Graphics Left (GL) |    |   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |   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   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  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      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  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 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |   |
| SP             | 40 | 32 | 20 | 0                  | 60 | @ | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 | 260 | 280 | 300 | 320 | 340 | 360 | 380 | 400 | 420 | 440 | 460 | 480 | 500 | 520 | 540 | 560 | 580 | 600 | 620 | 640 | 660 | 680 | 700 | 720 | 740 | 760 | 780 | 800 | 820 | 840 | 860 | 880 | 900 | 920 | 940 | 960 | 980 | 1000 | 1020 | 1040 | 1060 | 1080 | 1100 | 1120 | 1140 | 1160 | 1180 | 1200 | 1220 | 1240 | 1260 | 1280 | 1300 | 1320 | 1340 | 1360 | 1380 | 1400 | 1420 | 1440 | 1460 | 1480 | 1500 | 1520 | 1540 | 1560 | 1580 | 1600 | 1620 | 1640 | 1660 | 1680 | 1700 | 1720 | 1740 | 1760 | 1780 | 1800 | 1820 | 1840 | 1860 | 1880 | 1900 | 1920 | 1940 | 1960 | 1980 | 2000 | 2020 | 2040 | 2060 | 2080 | 2100 | 2120 | 2140 | 2160 | 2180 | 2200 | 2220 | 2240 | 2260 | 2280 | 2300 | 2320 | 2340 | 2360 | 2380 | 2400 | 2420 | 2440 | 2460 | 2480 | 2500 | 2520 | 2540 | 2560 | 2580 | 2600 | 2620 | 2640 | 2660 | 2680 | 2700 | 2720 | 2740 | 2760 | 2780 | 2800 | 2820 | 2840 | 2860 | 2880 | 2900 | 2920 | 2940 | 2960 | 2980 | 3000 | 3020 | 3040 | 3060 | 3080 | 3100 | 3120 | 3140 | 3160 | 3180 | 3200 | 3220 | 3240 | 3260 | 3280 | 3300 | 3320 | 3340 | 3360 | 3380 | 3400 | 3420 | 3440 | 3460 | 3480 | 3500 | 3520 | 3540 | 3560 | 3580 | 3600 | 3620 | 3640 | 3660 | 3680 | 3700 | 3720 | 3740 | 3760 | 3780 | 3800 | 3820 | 3840 | 3860 | 3880 | 3900 | 3920 | 3940 | 3960 | 3980 | 4000 | 4020 | 4040 | 4060 | 4080 | 4100 | 4120 | 4140 | 4160 | 4180 | 4200 | 4220 | 4240 | 4260 | 4280 | 4300 | 4320 | 4340 | 4360 | 4380 | 4400 | 4420 | 4440 | 4460 | 4480 | 4500 | 4520 | 4540 | 4560 | 4580 | 4600 | 4620 | 4640 | 4660 | 4680 | 4700 | 4720 | 4740 | 4760 | 4780 | 4800 | 4820 | 4840 | 4860 | 4880 | 4900 | 4920 | 4940 | 4960 | 4980 | 5000 | 5020 | 5040 | 5060 | 5080 | 5100 | 5120 | 5140 | 5160 | 5180 | 5200 | 5220 | 5240 | 5260 | 5280 | 5300 | 5320 | 5340 | 5360 | 5380 | 5400 | 5420 | 5440 | 5460 | 5480 | 5500 | 5520 | 5540 | 5560 | 5580 | 5600 | 5620 | 5640 | 5660 | 5680 | 5700 | 5720 | 5740 | 5760 | 5780 | 5800 | 5820 | 5840 | 5860 | 5880 | 5900 | 5920 | 5940 | 5960 | 5980 | 6000 | 6020 | 6040 | 6060 | 6080 | 6100 | 6120 | 6140 | 6160 | 6180 | 6200 | 6220 | 6240 | 6260 | 6280 | 6300 | 6320 | 6340 | 6360 | 6380 | 6400 | 6420 | 6440 | 6460 | 6480 | 6500 | 6520 | 6540 | 6560 | 6580 | 6600 | 6620 | 6640 | 6660 | 6680 | 6700 | 6720 | 6740 | 6760 | 6780 | 6800 | 6820 | 6840 | 6860 | 6880 | 6900 | 6920 | 6940 | 6960 | 6980 | 7000 | 7020 | 7040 | 7060 | 7080 | 7100 | 7120 | 7140 | 7160 | 7180 | 7200 | 7220 | 7240 | 7260 | 7280 | 7300 | 7320 | 7340 | 7360 | 7380 | 7400 | 7420 | 7440 | 7460 | 7480 | 7500 | 7520 | 7540 | 7560 | 7580 | 7600 | 7620 | 7640 | 7660 | 7680 | 7700 | 7720 | 7740 | 7760 | 7780 | 7800 | 7820 | 7840 | 7860 | 7880 | 7900 | 7920 | 7940 | 7960 | 7980 | 8000 | 8020 | 8040 | 8060 | 8080 | 8100 | 8120 | 8140 | 8160 | 8180 | 8200 | 8220 | 8240 | 8260 | 8280 | 8300 | 8320 | 8340 | 8360 | 8380 | 8400 | 8420 | 8440 | 8460 | 8480 | 8500 | 8520 | 8540 | 8560 | 8580 | 8600 | 8620 | 8640 | 8660 | 8680 | 8700 | 8720 | 8740 | 8760 | 8780 | 8800 | 8820 | 8840 | 8860 | 8880 | 8900 | 8920 | 8940 | 8960 | 8980 | 9000 | 9020 | 9040 | 9060 | 9080 | 9100 | 9120 | 9140 | 9160 | 9180 | 9200 | 9220 | 9240 | 9260 | 9280 | 9300 | 9320 | 9340 | 9360 | 9380 | 9400 | 9420 | 9440 | 9460 | 9480 | 9500 | 9520 | 9540 | 9560 | 9580 | 9600 | 9620 | 9640 | 9660 | 9680 | 9700 | 9720 | 9740 | 9760 | 9780 | 9800 | 9820 | 9840 | 9860 | 9880 | 9900 | 9920 | 9940 | 9960 | 9980 | 10000 | 10020 | 10040 | 10060 | 10080 | 10100 | 10120 | 10140 | 10160 | 10180 | 10200 | 10220 | 10240 | 10260 | 10280 | 10300 | 10320 | 10340 | 10360 | 10380 | 10400 | 10420 | 10440 | 10460 | 10480 | 10500 | 10520 | 10540 | 10560 | 10580 | 10600 | 10620 | 10640 | 10660 | 10680 | 10700 | 10720 | 10740 | 10760 | 10780 | 10800 | 10820 | 10840 | 10860 | 10880 | 10900 | 10920 | 10940 | 10960 | 10980 | 11000 | 11020 | 11040 | 11060 | 11080 | 11100 | 11120 | 11140 | 11160 | 11180 | 11200 | 11220 | 11240 | 11260 | 11280 | 11300 | 11320 | 11340 | 11360 | 11380 | 11400 | 11420 | 11440 | 11460 | 11480 | 11500 | 11520 | 11540 | 11560 | 11580 | 11600 | 11620 | 11640 | 11660 | 11680 | 11700 | 11720 | 11740 | 11760 | 11780 | 11800 | 11820 | 11840 | 11860 | 11880 | 11900 | 11920 | 11940 | 11960 | 11980 | 12000 | 12020 | 12040 | 12060 | 12080 | 12100 | 12120 | 12140 | 12160 | 12180 | 12200 | 12220 | 12240 | 12260 | 12280 | 12300 | 12320 | 12340 | 12360 | 12380 | 12400 | 12420 | 12440 | 12460 | 12480 | 12500 | 12520 | 12540 | 12560 | 12580 | 12600 | 12620 | 12640 | 12660 | 12680 | 12700 | 12720 | 12740 | 12760 | 12780 | 12800 | 12820 | 12840 | 12860 | 12880 | 12900 | 12920 | 12940 | 12960 | 12980 | 13000 | 13020 | 13040 | 13060 | 13080 | 13100 | 13120 | 13140 | 13160 | 13180 | 13200 | 13220 | 13240 | 13260 | 13280 | 13300 | 13320 | 13340 | 13360 | 13380 | 13400 | 13420 | 13440 | 13460 | 13480 | 13500 | 13520 | 13540 | 13560 | 13580 | 13600 | 13620 | 13640 | 13660 | 13680 | 13700 | 13720 | 13740 | 13760 | 13780 | 13800 | 13820 | 13840 | 13860 | 13880 | 13900 | 13920 | 13940 | 13960 | 13980 | 14000 | 14020 | 14040 | 14060 | 14080 | 14100 | 14120 | 14140 | 14160 | 14180 | 14200 | 14220 | 14240 | 14260 | 14280 | 14300 | 14320 | 14340 | 14360 | 14380 | 14400 | 14420 | 14440 | 14460 | 14480 | 14500 | 14520 | 14540 | 14560 | 14580 | 14600 | 14620 | 14640 | 14660 | 14680 | 14700 | 14720 | 14740 | 14760 | 14780 | 14800 | 14820 | 14840 | 14860 | 14880 | 14900 | 14920 | 14940 | 14960 | 14980 | 15000 | 15020 | 15040 | 15060 | 15080 | 15100 | 15120 | 15140 | 15160 | 15180 | 15200 | 15220 | 15240 | 15260 | 15280 | 15300 | 15320 | 15340 | 15360 | 15380 | 15400 | 15420 | 15440 | 15460 | 15480 | 15500 | 15520 | 15540 | 15560 | 15580 | 15600 | 15620 | 15640 | 15660 | 15680 | 15700 | 15720 | 15740 | 15760 | 15780 | 15800 | 15820 | 15840 | 15860 | 15880 | 15900 | 15920 | 15940 | 15960 | 15980 | 16000 | 16020 | 16040 | 16060 | 16080 | 16100 | 16120 | 16140 | 16160 | 16180 | 16200 | 16220 | 16240 | 16260 | 16280 | 16300 | 16320 | 16340 | 16360 | 16380 | 16400 | 16420 | 16440 | 16460 | 16480 | 16500 | 16520 | 16540 | 16560 | 16580 | 16600 | 16620 | 16640 | 16660 | 16680 | 16700 | 16720 | 16740 | 16760 | 16780 | 16800 | 16820 | 16840 | 16860 | 16880 | 16900 | 16920 | 16940 | 16960 | 16980 | 17000 | 17020 | 17040 | 17060 | 17080 | 17100 | 17120 | 17140 | 17160 | 17180 | 17200 | 17220 | 17240 | 17260 | 17280 | 17300 | 17320 | 17340 | 17360 | 17380 | 17400 | 17420 | 17440 | 17460 | 17480 | 17500 | 17520 | 17540 | 17560 | 17580 | 17600 | 17620 | 17640 | 17660 | 17680 | 17700 | 17720 | 17740 | 17760 | 17780 | 17800 | 17820 | 17840 | 17860 | 17880 | 17900 | 17920 | 17940 | 17960 | 17980 | 18000 | 18020 | 18040 | 18060 | 18080 | 18100 | 18120 | 18140 | 18160 | 18180 | 18200 | 18220 | 18240 | 18260 | 18280 | 18300 | 18320 | 18340 | 18360 | 18380 | 18400 | 18420 | 18440 | 18460 | 18480 | 18500 | 18520 | 18540 | 18560 | 18580 | 18600 | 18620 | 18640 | 18660 | 18680 | 18700 | 18720 | 18740 | 18760 | 18780 | 18800 | 18820 | 18840 | 18860 | 18880 | 18900 | 18920 | 18940 | 18960 | 18980 | 19000 | 19020 | 19040 | 19060 | 19080 | 19100 | 19120 | 19140 | 19160 | 19180 | 19200 | 19220 | 19240 | 19260 | 19280 | 19300 | 19320 | 19340 | 19360 | 19380 | 19400 | 19420 | 19440 | 19460 | 19480 | 19500 | 19520 | 19540 | 19560 | 19580 | 19600 | 19620 | 19640 | 19660 | 19680 | 19700 | 19720 | 19740 | 19760 | 19780 | 19800 | 19820 | 19840 | 19860 | 19880 | 19900 | 19920 | 19940 | 19960 | 19980 | 20000 | 20020 | 20040 | 20060 | 20080 | 20100 | 20120 | 20140 | 20160 | 20180 | 20200 | 20220 | 20240 | 20260 | 20280 | 20300 | 20320 | 20340 | 20360 | 20380 | 20400 | 20420 | 20440 | 20460 | 20480 | 20500 | 20520 | 20540 | 20560 | 20580 | 20600 | 20620 | 20640 | 20660 | 20680 | 20700 | 20720 | 20740 | 20760 | 20780 | 20800 | 20820 | 20840 | 20860 | 20880 | 20900 | 20920 | 20940 | 20960 | 20980 | 21000 | 21020 | 21040 | 21060 | 21080 | 21100 | 21120 | 21140 | 21160 | 21180 | 21200 | 21220 | 21240 | 21260 | 21280 | 21300 | 21320 | 21340 | 21360 | 21380 | 21400 | 21420 | 21440 | 21460 | 21480 | 21500 | 21520 | 21540 | 21560 | 21580 | 21600 | 21620 | 21640 | 21660 | 21680 | 21700 | 21720 | 21740 | 21760 | 21780 | 21800 | 21820 | 21840 | 21860 | 21880 | 21900 | 21920 | 21940 | 21960 | 21980 | 22000 | 22020 | 22040 | 22060 | 22080 | 22100 | 22120 | 22140 | 22160 | 22180 | 22200 | 22220 | 22240 | 22260 | 22280 | 22300 | 22320 | 22340 | 22360 | 22380 | 22400 | 22420 | 22440 | 22460 | 22480 | 22500 | 22520 | 22540 | 22560 | 22580 | 22600 | 22620 | 22640 | 22660 | 22680 | 22700 | 22720 | 22740 | 22760 | 22780 | 22800 | 22820 | 22840 | 22860 | 22880 | 22900 | 22920 | 22940 | 22960 | 22980 | 23000 | 23020 | 23040 | 23060 | 23080 | 23100 | 23120 | 23140 | 23160 | 23180 | 23200 | 23220 | 23240 | 23260 | 23280 | 23300 | 23320 | 23340 | 23360 | 23380 | 23400 | 23420 | 23440 | 23460 | 23480 | 23500 | 23520 | 23540 | 23560 | 23580 | 23600 | 23620 | 23640 | 23660 | 23680 | 23700 | 23720 | 23740 | 23760 | 23780 | 23800 | 23820 | 23840 | 23860 | 23880 | 23900 | 23920 | 23940 | 23960 | 23980 | 24000 | 24020 | 24040 | 24060 | 24080 | 24100 | 24120 | 24140 | 24160 | 24180 | 24200 | 24220 | 24240 | 24260 | 24280 | 24300 | 24320 | 24340 | 24360 | 24380 | 24400 | 24420 | 24440 | 24460 | 24480 | 24500 | 24520 | 24540 | 24560 | 24580 | 24600 | 24620 | 24640 | 24660 | 24680 | 24700 | 24720 | 24740 | 24760 | 24780 | 24800 | 24820 | 24840 | 24860 | 24880 | 24900 | 24920 | 24940 | 24960 | 24980 | 25000 | 25020 | 25040 | 25060 | 25080 | 25100 | 25120 | 25140 | 25160 | 25180 | 25200 | 25220 | 25240 | 25260 | 25280 | 25300 | 25320 | 25340 | 25360 | 25380 | 25400 | 25420 | 25440 | 25460 | 25480 | 25500 | 25520 | 25540 | 25560 | 25580 | 25600 | 25620 | 25640 | 25660 | 2 |

# Standard 8-bit Code Table (Right Half)

| C1 Control Set |                  |                         | Standard Right      |                  |                  |                  |                  |                  |
|----------------|------------------|-------------------------|---------------------|------------------|------------------|------------------|------------------|------------------|
| Column 8 9     |                  |                         | Graphics Right (GR) |                  |                  |                  |                  |                  |
| Row 0          |                  |                         | 10                  | 11               | 12               | 13               | 14               | 15               |
| 0              | 200<br>128<br>80 | DCS<br>220<br>144<br>90 | 240<br>160<br>A0    | 260<br>176<br>B0 | 280<br>192<br>C0 | 300<br>208<br>D0 | 320<br>224<br>E0 | 340<br>240<br>F0 |
| 1              | 201<br>129<br>81 | PU1<br>221<br>145<br>91 | 241<br>161<br>A1    | 261<br>177<br>B1 | 281<br>193<br>C1 | 301<br>209<br>D1 | 321<br>225<br>E1 | 341<br>241<br>F1 |
| 2              | 202<br>130<br>82 | BPH<br>222<br>146<br>92 | 242<br>162<br>A2    | 262<br>178<br>B2 | 282<br>194<br>C2 | 302<br>210<br>D2 | 322<br>226<br>E2 | 342<br>242<br>F2 |
| 3              | 203<br>131<br>83 | NBH<br>223<br>147<br>93 | 243<br>163<br>A3    | 263<br>179<br>B3 | 283<br>195<br>C3 | 303<br>211<br>D3 | 323<br>227<br>E3 | 343<br>243<br>F3 |
| 4              | 204<br>132<br>84 | IND<br>224<br>148<br>94 | 244<br>164<br>A4    | 264<br>180<br>B4 | 284<br>196<br>C4 | 304<br>212<br>D4 | 324<br>228<br>E4 | 344<br>244<br>F4 |
| 5              | 205<br>133<br>85 | NEL<br>225<br>149<br>95 | 245<br>165<br>A5    | 265<br>181<br>B5 | 285<br>197<br>C5 | 305<br>213<br>D5 | 325<br>229<br>E5 | 345<br>245<br>F5 |
| 6              | 206<br>134<br>86 | SSA<br>226<br>150<br>96 | 246<br>166<br>A6    | 266<br>182<br>B6 | 286<br>198<br>C6 | 306<br>214<br>D6 | 326<br>230<br>E6 | 346<br>246<br>F6 |
| 7              | 207<br>135<br>87 | ESA<br>227<br>151<br>97 | 247<br>167<br>A7    | 267<br>183<br>B7 | 287<br>199<br>C7 | 307<br>215<br>D7 | 327<br>231<br>E7 | 347<br>247<br>F7 |
| 8              | 210<br>136<br>88 | HTS<br>230<br>152<br>98 | 250<br>168<br>A8    | 270<br>184<br>B8 | 290<br>200<br>C8 | 310<br>216<br>D8 | 330<br>232<br>E8 | 350<br>248<br>F8 |
| 9              | 211<br>137<br>89 | HTJ<br>231<br>153<br>99 | 251<br>169<br>A9    | 271<br>185<br>B9 | 291<br>201<br>C9 | 311<br>217<br>D9 | 331<br>233<br>E9 | 351<br>249<br>F9 |
| 10             | 212<br>138<br>8A | VTJ<br>232<br>154<br>9A | 252<br>170<br>AA    | 272<br>186<br>BA | 292<br>202<br>CA | 312<br>218<br>DA | 332<br>234<br>EA | 352<br>250<br>FA |
| 11             | 213<br>139<br>8B | PLD<br>233<br>155<br>9B | 253<br>171<br>AB    | 273<br>187<br>BB | 293<br>203<br>CB | 313<br>219<br>DB | 333<br>235<br>EB | 353<br>251<br>FB |
| 12             | 214<br>140<br>8C | PLU<br>234<br>156<br>9C | 254<br>172<br>AC    | 274<br>188<br>BC | 294<br>204<br>CC | 314<br>220<br>DC | 334<br>236<br>EC | 354<br>252<br>FC |
| 13             | 215<br>141<br>8D | RI<br>235<br>157<br>9D  | 255<br>173<br>AD    | 275<br>189<br>BD | 295<br>205<br>CD | 315<br>221<br>DD | 335<br>237<br>ED | 355<br>253<br>FD |
| 14             | 216<br>142<br>8E | SS2<br>236<br>158<br>9E | 256<br>174<br>AE    | 276<br>190<br>BE | 296<br>206<br>CE | 316<br>222<br>DE | 336<br>238<br>EE | 356<br>254<br>FE |
| 15             | 217<br>143<br>8F | SS3<br>237<br>159<br>9F | 257<br>175<br>AF    | 277<br>191<br>BF | 297<br>207<br>CF | 317<br>223<br>DF | 337<br>239<br>EF | 357<br>255<br>FF |

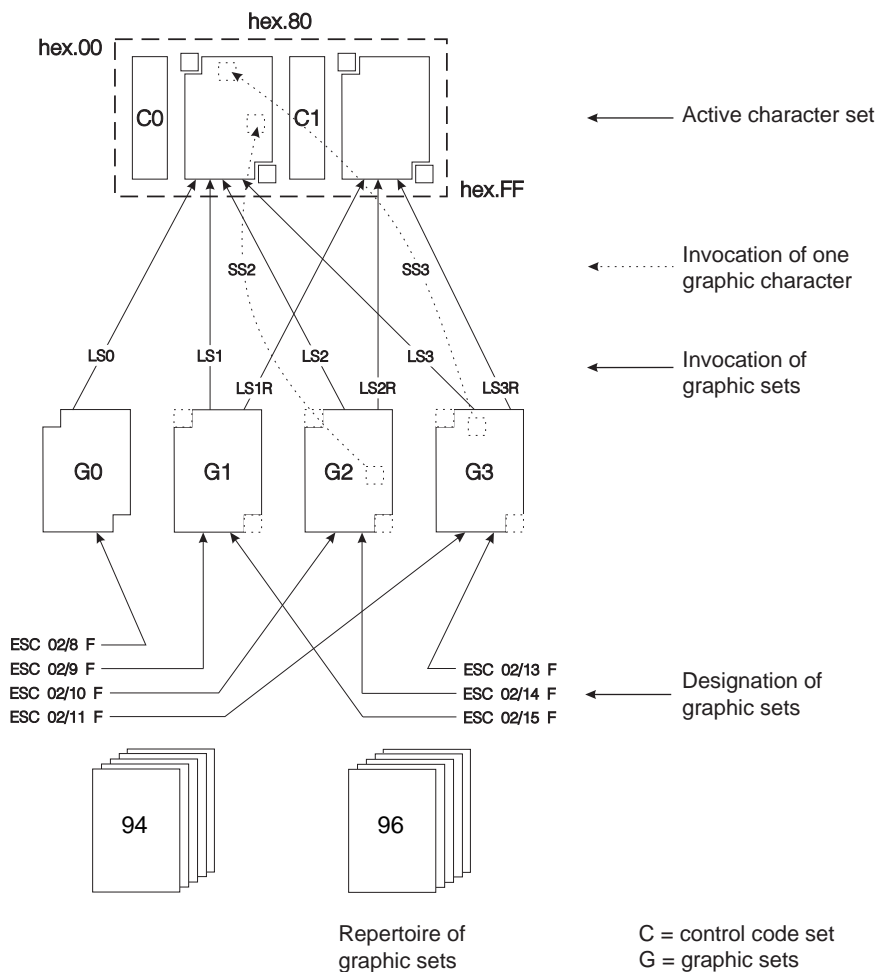
## DEC Supplemental Graphic Character Set

### LEGEND

|   |                  |                         |
|---|------------------|-------------------------|
|   | GR               | Column/Row              |
|   | 12/1             |                         |
| A | 301<br>193<br>C1 | Octal<br>Decimal<br>Hex |

## 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      | °           |           |
| 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.-<br>Danish | ISO Spanish | DEC<br>Swedish | Norw.-<br>Danish | DEC<br>Dutch | DEC<br>Swiss | DEC<br>Portuguese |
|------|-------|----------------------|-------------|----------------|------------------|--------------|--------------|-------------------|
| 2/3  | #     |                      | £           |                |                  | £            | ù            |                   |
| 4/0  | @     | Ä                    | §           | É              |                  | 3/4          | à            |                   |
| 5/11 | [     | Æ                    | í           | 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        | ã            | 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.<br>(on: $n=1$ , off: $n=0$ )                     | ESC W ( $n$ )                 |
| Double height/double width characters  | ESC [ @ $l\ h\ m_1 \dots m_4$ |
| $l = 4, h = 0, m_1 = 0, m_2 = 0$<br>$m_3$ 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       |
|--|---------------|
| <b>Print Mode Control (cont.)</b>  |               |
| $m_4$ controls character width:<br>$m_4$ Width<br>0          Unchanged<br>1          Single width<br>2          Double width |               |
| Compressed printing.   | SI or ESC SI  |
| Sets 10 cpi and disables compressed printing.  | DC2           |
| Subscript or superscript printing on.<br>(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 _ ( $n$ ) |
| <b>Horizontal Control</b>  |               |
| Space  | SP            |
| Backspace  | BS            |
| Carriage return  | CR            |
| Sets 12 cpi pitch  | ESC :         |
| Proportionally spaced characters on/off<br>(on: $n = 1$ , off: $n = 0$ )   | ESC P ( $n$ ) |

| Function  | Command   |
|---|---|
| <b>Vertical Control</b>   |   |
| 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).<br>Default value is 1/216" (1/180" in AG Mode)<br>$m_1 = 4, m_2 = 0, 0 \leq t_1 \leq 255, 0 \leq t_2 \leq 255,$<br>$t_3 = 0, t_4 = 180 \text{ or } 216$ | ESC [ \ ( $m_1$ )( $m_2$ )( $t_1$ ) ... ( $t_4$ ) |

| Function  | Command                              |
|---|--------------------------------------|
| <b>Tabulation</b>   |                                      |
| 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.<br>( $1 \leq n \leq 255$ ) | ESC d ( $n_1$ )( $n_2$ )             |
| Clear all horizontal tabs   | ESC D NUL                            |
| Move print position right by $n/120$ inch   | ESC d ( $n_1$ ) ( $n_2$ )            |
| ( $0 \leq n_1, n_2 \leq 255$ ) ( $n = n_1 + n_2 \times 256$ )   |                                      |
| Vertical tab execution  | VT                                   |
| Set vertical tabs   | ESC B ( $t_1$ ) ... ( $t_{64}$ ) NUL |
| Reset tabs to default values  | ESC R                                |
| <b>Page Formatting</b>  |                                      |
| 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   |
|---|---|
| <b>Color Selection</b>  |   |
| Select print color<br>n =    0:    Black<br>1:    Magenta (red)<br>2:    Cyan (blue)<br>3:    Violet<br>4:    Yellow<br>5:    Orange<br>6:    Green   | ESC r (n)   |
| <b>Character Set Control</b>  |   |
| Select character set 1.   | ESC 7   |
| Select character set 2.   | ESC 6   |
| Print $n_1 + n_2 \times 256$ characters from all-character set<br>(chars.: codes of characters to print, $0 \leq chars \leq 255$ )  | ESC \ (n <sub>1</sub> ) (n <sub>2</sub> )<br>(chars.)                                 |
| Print a character from all-character set (char.: a code of<br>character to print, $0 \leq chars \leq 255$ )   | ESC ^ (char)  |
| Selects a code page table n. ( $0 < n_1, n_2 < 255$ )<br>( $n = n_1 + n_2 \times 256$ ), ( $0 \leq c_1, c_2 < 255$ )<br>c <sub>1</sub> c <sub>2</sub> Code Page ID<br>0    210    Code Page 210<br>0    220    Code page 220<br>1    181    Code page 437<br>3    82    Code page 850<br>3    84    Code page 852<br>3    85    Code page 853 | ESC [ T (n <sub>1</sub> ) (n <sub>2</sub> )<br>00 (c <sub>1</sub> ) (c <sub>2</sub> ) |

| Function                             |                |  | Command |
|--------------------------------------|----------------|--|---------|
| <b>Character Set Control (cont.)</b> |                |  |         |
| c <sub>1</sub>                       | c <sub>2</sub> | 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             | BRASCI                                   |         |
| 35                                   | 76             | Code MJK                                 |         |
| 35                                   | 77             | Bulgarian                                |         |
| Clear one line of data               |                |  | CAN     |
| Select printer                       |                |  | DC1     |
| Deselect printer (ignore input)      |                |  | ESC Q # |

| Function                               | Command  |
|--|--|
| <b>Downloading</b>                     |  |
| Select resident or downloaded font     | ESC I ( <i>n</i> )   |
| 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 = ( <i>n</i> <sub>1</sub> ) ( <i>n</i> <sub>2</sub> ) ID ( <i>m</i> <sub>1</sub> ) ( <i>m</i> <sub>2</sub> ) ( <i>data</i> )     |
| <b>Bit Image Graphics</b>              |  |
| Single-density graphics                | ESC K ( <i>n</i> <sub>1</sub> ) ( <i>n</i> <sub>2</sub> ) ( <i>data</i> )  |
| Double density graphics                | ESC L ( <i>n</i> <sub>1</sub> ) ( <i>n</i> <sub>2</sub> ) ( <i>data</i> )  |
| High-speed double density graphics     | ESC Y ( <i>n</i> <sub>1</sub> ) ( <i>n</i> <sub>2</sub> ) ( <i>data</i> )  |
| High resolution graphics               | ESC Z ( <i>n</i> <sub>1</sub> ) ( <i>n</i> <sub>2</sub> ) ( <i>data</i> )  |
| Select graphics mode (in AG mode only) | ESC * ( <i>m</i> ) ( <i>c</i> <sub>1</sub> ) ( <i>c</i> <sub>2</sub> ) ( <i>data</i> )   |
| High density dot graphics printing     | ESC [ <i>g</i> ( <i>l</i> ) ( <i>h</i> ) ( <i>m</i> ) ( <i>n</i> <sub>1</sub> ) ... ( <i>n</i> <sub><i>k</i></sub> ) ( <i>data</i> ) |
| <b>Cut Sheet Feeder Control</b>        |  |
| 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  |
|--|--|
| <b>Miscellaneous</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  |
| Sound the bell   | BEL  |
| Unidirectional printing on/off<br>(on: $n = 1$ , off: $n = 0$ )      | ESC U ( $n$ )  |
| Add a line feed to all carriage returns<br>(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      |
|--|--------------|
| <b>Print Mode Control</b>  |              |
| 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<br>$n =$ 0: Normal<br>1: Outlined<br>2: Shaded<br>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.<br>(on: $n=1$ , off: $n=0$ )                                     | ESC W (n)    |
| Double height characters on/off.<br>(on: $n=1$ , off: $n=0$ )                                    | ESC w (n)    |
| Compressed printing.   | SI or ESC SI |
| Compressed printing off.   | DC2          |



| Function  | Command   |
|---|---|
| <b>Print Mode Control (cont.)</b>   |   |
| Subscript or superscript printing on.<br>(Subscript: $n=1$ , superscript: $n=0$ )   | ESC S ( $n$ )   |
| Subscript or superscript printing on.   | ESC T   |
| Underline on/off (on: $n=1$ , off: $n=0$ )  | ESC -( $n$ )  |
| Select line<br>$n_1 = 3, n_2 = 0, d_1 = 1$<br>$d_2 =$ 1: Underline<br>2: Strikethrough<br>3: Overscore<br>$d_3 =$ 0: Cancel line selection<br>1: Single line<br>2: Double line<br>5: Single-dotted line<br>6: Double-dotted line  | ESC ( - ( $n_1$ ) ( $n_2$ ) ( $d_1$ ) ( $d_2$ ) ( $d_3$ ) |
| Select printing style<br>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.<br>$n =$ 0: 10 cpi           16: Double height<br>1: 12 cpi       32: Double width<br>2: Proportional spacing   64: Italics<br>4: Condensed   128: Underline<br>8: Bold | ESC ! ( $n$ )   |

| Function  | Command                             |
|---|-------------------------------------|
| <b>Horizontal Control</b>   |                                     |
| 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<br>(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 $(n_1 + n_2 \times 256)/360$ inch<br>( $0 \leq n_1 \leq 255$ ) ( $0 \leq n_2 \leq 4$ )               | 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   |                                     |
| <b>Vertical Control</b>   |                                     |
| Line Feed   | LF                                  |
| Form Feed   | FF                                  |

| Function  | Command                           |
|---|-----------------------------------|
| <b>Vertical Control (cont.)</b>   |                                   |
| 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 + ( $n$ )                     |
| <b>Tabulation</b>   |                                   |
| 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. ( $1 \leq n \leq 255$ )<br>( $1 \leq k \leq 32$ ) | 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<br>( $n = n_1 + n_2 \times 256$ )   | 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<br>( $n = n_1 + n_2 \times 256$ )   | 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   |
|--|---|
| <b>Tabulation (cont.)</b>  |   |
| Move to dot line $(d_1 + d_2 \times 256)/360^{(*2)}$ inch<br>$n_1 = 2, n_2 = 0$ ( $1 \leq d_1 \leq 255$ ) ( $1 \leq d_2 \leq 127$ )  | ESC ( V ( $n_1$ ) ( $n_2$ ) ( $d_1$ ) ( $d_2$ )                     |
| Vertical relative move by $(d_1 + d_2 \times 256)/360^{(*1)}$ inch $n_1 = 2, n_2 = 0$<br>( $1 \leq d_1 \leq 255$ ) ( $1 \leq d_2 \leq 127$ ) $-32768 \leq d_1 + d_2 \times 256 \leq 32768$   | ESC ( v ( $n_1$ ) ( $n_2$ ) ( $d_1$ ) ( $d_2$ )                     |
| <b>Page Formatting</b>   |   |
| 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<br>$n_1 = 4, n_2 = 0$<br>Top margin = $(t_1 + t_2 \times 256)/360^{(*2)}$ inch<br>$(0 \leq t_1 \leq 255)$ ( $1 \leq t_2 \leq 127$ )<br>Bottom margin = $(b_1 + b_2 \times 256)/360^{(*2)}$ inch<br>$(0 \leq b_1 \leq 255)$ ( $0 \leq b_2 \leq 127$ ) | 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<br>$n_1 = 2, n = 0$ ( $0 \leq d_1 \leq 255$ ) ( $0 \leq d_2 \leq 127$ )  | 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       |
|--|---------------|
| <b>Color Selection</b>   |               |
| Select print color<br>$n =$ 0:    Black                      4:    Yellow<br>1:    Magenta (red)       5:    Orange<br>2:    Cyan (blue)        6:    Green<br>3:    Violet  | ESC r ( $n$ ) |
| <b>Character Set Control</b>   |               |
| 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<br>$n =$ 0:    USA<br>1:    France<br>2:    Germany<br>3:    United Kingdom<br>4:    Denmark I<br>5:    Sweden<br>6:    Italy<br>7:    Spanish I<br>8:    Japan<br>9:    Norway<br>10:    Denmark 2<br>11:    Spanish 2<br>12:    Latin America<br>13:    Korea<br>64:    Legal | ESC R ( $n$ ) |

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

| Function   | Command   |
|--|---|
| <b>Character Set Control</b>   |   |
| $d_2 = \quad d_3 =$  |   |
| 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 $n_1 + n_2 \times 256$ characters from all-character set<br>(chars.: codes of characters to print, $(0 \leq n_1 \leq 255)$<br>$(0 \leq n_2 \leq 127)$<br>$(0 \leq n_1 + n_2 \times 256 \leq 255)$ ( $0 \leq \text{character codes} \leq 254$ ) | ESC ( ^ ( $n_1$ ) ( $n_2$ )<br>( <i>character codes</i> ) |
| 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 #   |
| <b>Font Selection and Downloading</b>  |   |
| Select font  | ESC % ( $n$ )   |
| Ex. $n =$ 0:      Resident<br>1:      Downloaded character set   |   |
| Select letter or draft quality   | ESC x ( $n$ )   |
| Ex. $n =$ 0:      Draft  |   |

| Function  | Command  |
|---|--|
| <b>Font Selection and Downloading (cont.)</b>   |  |
| Select type style<br>$n =$ 0: Roman<br>1: Sans Serif<br>2: Courier<br>3: Prestige<br>4: Script<br>5: OCR-B<br>7: Orator<br>8: not supported<br>9: not supported | ESC k ( $n$ )  |
| Copy resident character set to download area  | ESC : NUL ( $n$ ) ( $s$ )  |
| Create download font  | ESC & NUL ( $n_1$ ) ( $n_2$ ) ( $d_0$ ) ( $d_1$ ) ( $d_2$ ) ( $data$ ) |
| <b>Bit Image Graphics</b>   |  |
| 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<br>$n_1 = 1, n_2 = 0, d = 1$ : Raster image graphics mode  | ESC ( G ( $n_1$ ) ( $n_2$ ) ( $d$ )                                    |



| Function   | Function      |
|--|---------------|
| <b>Cut Sheet Feeder Control</b>                              |               |
| 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     |
| <b>Miscellaneous</b>   |               |
| 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 |  | GL | GR |  | GL | GR |  | GL | GR |  | GL | GR |  |
|----------|--------|----------------|------------------|---|----------------|------------------|---|-------------------------|----|-----------------------|------------------|----|------------------------|----|------------------|------------------|----------|----|--|----|----|--|----|----|--|----|----|--|----|----|--|
|          | Column | 2              | 10               |   | 3              | 11               |   | 4                       | 12 |                       | 5                | 13 |                        | 6  | 14               |                  | 7        | 15 |  | 8  | 16 |  | 9  | 17 |  | 10 | 18 |  | 11 | 19 |  |
| Row<br>0 |        |                |                  | 0 | 60<br>48<br>30 | 260<br>176<br>80 | @ | 100<br>304<br>192<br>C0 | P  | 120<br>80<br>50<br>D0 | 320<br>208<br>D0 | =  | 140<br>96<br>60<br>E0  | p  | 160<br>224<br>E0 | 360<br>240<br>F0 | Row<br>0 |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 1        | I      | 41<br>33<br>21 | 241<br>161<br>A1 | 1 | 61<br>49<br>31 | 261<br>177<br>B1 | A | 101<br>65<br>41<br>C1   | Q  | 121<br>81<br>51<br>D1 | 321<br>209<br>D1 | a  | 141<br>97<br>61<br>E1  | q  | 161<br>225<br>E1 | 361<br>241<br>F1 | 1        |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 2        | "      | 42<br>34<br>22 | 242<br>162<br>A2 | 2 | 62<br>50<br>32 | 262<br>178<br>B2 | B | 102<br>66<br>42<br>C2   | R  | 122<br>82<br>52<br>D2 | 322<br>210<br>D2 | b  | 142<br>98<br>62<br>E2  | r  | 162<br>226<br>E2 | 362<br>242<br>F2 | 2        |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 3        | #      | 43<br>35<br>23 | 243<br>163<br>A3 | 3 | 63<br>51<br>33 | 263<br>179<br>B3 | C | 103<br>67<br>43<br>C3   | S  | 123<br>83<br>53<br>D3 | 323<br>211<br>D3 | c  | 143<br>99<br>63<br>E3  | s  | 163<br>227<br>E3 | 363<br>243<br>F3 | 3        |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 4        | \$     | 44<br>36<br>24 | 244<br>164<br>A4 | 4 | 64<br>52<br>34 | 264<br>180<br>B4 | D | 104<br>68<br>44<br>C4   | T  | 124<br>84<br>54<br>D4 | 324<br>212<br>D4 | d  | 144<br>100<br>64<br>E4 | t  | 164<br>228<br>E4 | 364<br>244<br>F4 | 4        |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 5        | %      | 45<br>37<br>25 | 245<br>165<br>A5 | 5 | 65<br>53<br>35 | 265<br>181<br>B5 | E | 105<br>69<br>45<br>C5   | U  | 125<br>85<br>55<br>D5 | 325<br>213<br>D5 | e  | 145<br>101<br>65<br>E5 | u  | 165<br>229<br>E5 | 365<br>245<br>F5 | 5        |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 6        | &      | 46<br>38<br>26 | 246<br>166<br>A6 | 6 | 66<br>54<br>36 | 266<br>182<br>B6 | F | 106<br>70<br>46<br>C6   | V  | 126<br>86<br>56<br>D6 | 326<br>214<br>D6 | f  | 146<br>102<br>66<br>E6 | v  | 166<br>230<br>E6 | 366<br>246<br>F6 | 6        |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 7        | '      | 47<br>39<br>27 | 247<br>167<br>A7 | 7 | 67<br>55<br>37 | 267<br>183<br>B7 | G | 107<br>71<br>47<br>C7   | W  | 127<br>87<br>57<br>D7 | 327<br>215<br>D7 | g  | 147<br>103<br>67<br>E7 | w  | 167<br>231<br>E7 | 367<br>247<br>F7 | 7        |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 8        | (      | 50<br>40<br>28 | 250<br>168<br>A8 | 8 | 70<br>56<br>38 | 270<br>184<br>B8 | H | 110<br>72<br>48<br>C8   | X  | 130<br>88<br>58<br>D8 | 330<br>216<br>D8 | h  | 150<br>104<br>68<br>E8 | x  | 170<br>232<br>E8 | 370<br>248<br>F8 | 8        |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 9        | )      | 51<br>41<br>29 | 251<br>169<br>A9 | 9 | 71<br>57<br>39 | 271<br>185<br>B9 | I | 111<br>73<br>49<br>C9   | Y  | 131<br>89<br>59<br>D9 | 331<br>217<br>D9 | i  | 151<br>105<br>69<br>E9 | y  | 171<br>233<br>E9 | 371<br>249<br>F9 | 9        |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 10       | *      | 52<br>42<br>2A | 252<br>170<br>AA | : | 72<br>58<br>3A | 272<br>186<br>BA | J | 112<br>74<br>4A<br>CA   | Z  | 132<br>90<br>5A<br>DA | 332<br>218<br>DA | j  | 152<br>106<br>6A<br>EA | z  | 172<br>234<br>EA | 372<br>250<br>FA | 10       |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 11       | +      | 53<br>43<br>2B | 253<br>171<br>AB | ; | 73<br>59<br>3B | 273<br>187<br>BB | K | 113<br>75<br>4B<br>CB   | [  | 133<br>91<br>5B<br>DB | 333<br>219<br>DB | k  | 153<br>107<br>6B<br>EB | §  | 173<br>235<br>EB | 373<br>251<br>FB | 11       |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 12       | ,      | 54<br>44<br>2C | 254<br>172<br>AC | < | 74<br>60<br>3C | 274<br>188<br>BC | L | 114<br>76<br>4C<br>CC   | ®  | 134<br>92<br>5C<br>DC | 334<br>220<br>DC | l  | 154<br>108<br>6C<br>EC | ¶  | 174<br>236<br>EC | 374<br>252<br>FC | 12       |    |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 13       | -      | 55<br>45<br>2D | 255<br>173<br>AD | = | 75<br>61<br>3D | 275<br>189<br>BD | M | 115<br>77<br>4D<br>CD   | ]  | 135<br>93<br>5D<br>DD | 335              |    |                        |    |                  |                  |          |    |  |    |    |  |    |    |  |    |    |  |    |    |  |

### LEGEND

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

### JIS Katakana Character Set

[illegible]

### LEGEND

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

## DEC Special Graphics Character Set

|     |        | GL             | GR               |   | 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               |     | 8  | 16 |
| Row | 0      |                |                  | 0 | 60<br>48<br>30 | 260<br>176<br>80 | ⊙ | 100<br>84<br>40 | 300<br>192<br>C0 | P | 120<br>80<br>50 | 320<br>208<br>D0 | ◆            | 140<br>96<br>60  | 340<br>224<br>E0 | —<br>SCAN 3 | 160<br>112<br>70 | 360<br>240<br>F0 | Row | 0  |    |
| 1   | I      | 41<br>33<br>21 | 241<br>161<br>A1 | 1 | 61<br>49<br>31 | 261<br>177<br>B1 | A | 101<br>85<br>41 | 301<br>193<br>C1 | Q | 121<br>81<br>51 | 321<br>209<br>D1 | ■            | 141<br>97<br>61  | 341<br>225<br>E1 | —<br>SCAN 4 | 161<br>113<br>71 | 361<br>241<br>F1 | 1   |    |    |
| 2   | "      | 42<br>34<br>22 | 242<br>162<br>A2 | 2 | 62<br>50<br>32 | 262<br>178<br>B2 | B | 102<br>86<br>42 | 302<br>194<br>C2 | R | 122<br>82<br>52 | 322<br>210<br>D2 | H T          | 142<br>98<br>62  | 342<br>226<br>E2 | —<br>SCAN 7 | 162<br>114<br>72 | 362<br>242<br>F2 | 2   |    |    |
| 3   | #      | 43<br>35<br>23 | 243<br>163<br>A3 | 3 | 63<br>51<br>33 | 263<br>179<br>B3 | C | 103<br>87<br>43 | 303<br>195<br>C3 | S | 123<br>83<br>53 | 323<br>211<br>D3 | F F          | 143<br>99<br>63  | 343<br>227<br>E3 | —<br>SCAN 9 | 163<br>115<br>73 | 363<br>243<br>F3 | 3   |    |    |
| 4   | \$     | 44<br>36<br>24 | 244<br>164<br>A4 | 4 | 64<br>52<br>34 | 264<br>180<br>B4 | D | 104<br>88<br>44 | 304<br>196<br>C4 | T | 124<br>84<br>54 | 324<br>212<br>D4 | C R          | 144<br>100<br>64 | 344<br>228<br>E4 | └           | 164<br>116<br>74 | 364<br>244<br>F4 | 4   |    |    |
| 5   | %      | 45<br>37<br>25 | 245<br>165<br>A5 | 5 | 65<br>53<br>35 | 265<br>181<br>B5 | E | 105<br>89<br>45 | 305<br>197<br>C5 | U | 125<br>85<br>55 | 325<br>213<br>D5 | L F          | 145<br>101<br>65 | 345<br>229<br>E5 | └           | 165<br>117<br>75 | 365<br>245<br>F5 | 5   |    |    |
| 6   | &      | 46<br>38<br>26 | 246<br>166<br>A6 | 6 | 66<br>54<br>36 | 266<br>182<br>B6 | F | 106<br>90<br>46 | 306<br>198<br>C6 | V | 126<br>86<br>56 | 326<br>214<br>D6 | o            | 146<br>102<br>66 | 346<br>230<br>E6 | └           | 166<br>118<br>76 | 366<br>246<br>F6 | 6   |    |    |
| 7   | '      | 47<br>39<br>27 | 247<br>167<br>A7 | 7 | 67<br>55<br>37 | 267<br>183<br>B7 | G | 107<br>91<br>47 | 307<br>199<br>C7 | W | 127<br>87<br>57 | 327<br>215<br>D7 | ±            | 147<br>103<br>67 | 347<br>231<br>E7 | T           | 167<br>119<br>77 | 367<br>247<br>F7 | 7   |    |    |
| 8   | (      | 50<br>40<br>28 | 250<br>168<br>A8 | 8 | 70<br>56<br>38 | 270<br>184<br>B8 | H | 110<br>92<br>48 | 310<br>200<br>C8 | X | 130<br>90<br>58 | 330<br>216<br>D8 | N L          | 150<br>104<br>68 | 350<br>232<br>E8 |             | 170<br>120<br>78 | 370<br>248<br>F8 | 8   |    |    |
| 9   | )      | 51<br>41<br>29 | 251<br>169<br>A9 | 9 | 71<br>57<br>39 | 271<br>185<br>B9 | I | 111<br>93<br>49 | 311<br>201<br>C9 | Y | 131<br>89<br>59 | 331<br>217<br>D9 | V T          | 151<br>105<br>69 | 351<br>233<br>E9 | ≤           | 171<br>121<br>79 | 371<br>249<br>F9 | 9   |    |    |
| 10  | *      | 52<br>42<br>2A | 252<br>170<br>AA | : | 72<br>58<br>3A | 272<br>186<br>BA | J | 112<br>94<br>4A | 312<br>202<br>CA | Z | 132<br>90<br>5A | 332<br>218<br>DA | ┘            | 152<br>106<br>6A | 352<br>234<br>EA | ≥           | 172<br>122<br>7A | 372<br>250<br>FA | 10  |    |    |
| 11  | +      | 53<br>43<br>2B | 253<br>171<br>AB | ; | 73<br>59<br>3B | 273<br>187<br>BB | K | 113<br>95<br>4B | 313<br>203<br>CB | [ | 133<br>91<br>5B | 333<br>219<br>DB | ┐            | 153<br>107<br>6B | 353<br>235<br>EB | π           | 173<br>123<br>7B | 373<br>251<br>FB | 11  |    |    |
| 12  | ,      | 54<br>44<br>2C | 254<br>172<br>AC | < | 74<br>60<br>3C | 274<br>188<br>BC | L | 114<br>96<br>4C | 314<br>204<br>CC | \ | 134<br>92<br>5C | 334<br>220<br>DC | └            | 154<br>108<br>6C | 354<br>236<br>EC | ≠           | 174<br>124<br>7C | 374<br>252<br>FC | 12  |    |    |
| 13  | -      | 55<br>45<br>2D | 255<br>173<br>AD | = | 75<br>61<br>3D | 275<br>189<br>BD | M | 115<br>97<br>4D | 315<br>205<br>CD | ] | 135<br>93<br>5D | 335<br>221<br>DD | L            | 155<br>109<br>6D | 355<br>237<br>ED | £           | 175<br>125<br>7D | 375<br>253<br>FD | 13  |    |    |
| 14  | .      | 56<br>46<br>2E | 256<br>174<br>AE | > | 76<br>62<br>3E | 276<br>190<br>BE | N | 116<br>98<br>4E | 316<br>206<br>CE | ^ | 136<br>94<br>5E | 336<br>222<br>DE | +            | 156<br>110<br>6E | 356<br>238<br>EE | ·           | 176<br>126<br>7E | 376<br>254<br>FE | 14  |    |    |
| 15  | /      | 57<br>47<br>2F | 257<br>175<br>AF | ? | 77<br>63<br>3F | 277<br>191<br>BF | O | 117<br>99<br>4F | 317<br>207<br>CF |   | 137<br>95<br>5F | 337<br>223<br>DF | —<br>SCAN 11 | 157<br>111<br>6F | 357<br>239<br>EF |             |                  |                  | 15  |    |    |

## LEGEND

|   | GL                     | GR   |                         |
|---|------------------------|------|-------------------------|
|   | 4/1                    | 12/1 | Column/Row              |
| A | 101 301<br>85 41<br>C1 |      | Octal<br>Decimal<br>Hex |

## DEC Technical Character Set

|     |        | GL             | GR               |   | GL             | GR               |   | GL              | GR               |   | GL              | GR               |   | 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               |  | 8  | 16 |  | 9  | 17 |  | 10 | 18 |  | 11 | 19 |  |
| Row | 0      |                |                  |   |                |                  |   |                 |                  |   |                 |                  |   |                  |                  |   |                  |                  |  |    |    |  |    |    |  |    |    |  |    |    |  |
| 1   |        | 41<br>33<br>21 | 241<br>161<br>A1 | } | 60<br>48<br>30 | 260<br>176<br>B0 | ∴ | 100<br>84<br>40 | 300<br>192<br>C0 | Π | 120<br>80<br>50 | 320<br>208<br>D0 | ⌊ | 140<br>96<br>60  | 340<br>224<br>E0 | π | 160<br>112<br>70 | 360<br>240<br>F0 |  | 1  |    |  |    |    |  |    |    |  |    |    |  |
| 2   |        | 42<br>34<br>22 | 242<br>162<br>A2 | ∠ | 61<br>49<br>31 | 261<br>177<br>B1 | α | 101<br>85<br>41 | 301<br>193<br>C1 | Ψ | 121<br>81<br>51 | 321<br>209<br>D1 | α | 141<br>97<br>61  | 341<br>225<br>E1 | Ψ | 161<br>113<br>71 | 361<br>241<br>F1 |  | 2  |    |  |    |    |  |    |    |  |    |    |  |
| 3   |        | 43<br>35<br>23 | 243<br>163<br>A3 | \ | 63<br>51<br>33 | 263<br>179<br>B3 | ÷ | 103<br>87<br>43 | 303<br>195<br>C3 | Σ | 123<br>83<br>53 | 323<br>211<br>D3 | χ | 143<br>99<br>63  | 343<br>227<br>E3 | σ | 163<br>115<br>73 | 363<br>243<br>F3 |  | 3  |    |  |    |    |  |    |    |  |    |    |  |
| 4   |        | 44<br>36<br>24 | 244<br>164<br>A4 | / | 64<br>52<br>34 | 264<br>180<br>B4 | Δ | 104<br>88<br>44 | 304<br>196<br>C4 | ∕ | 124<br>84<br>54 | 324<br>212<br>D4 | δ | 144<br>100<br>64 | 344<br>228<br>E4 | τ | 164<br>116<br>74 | 364<br>244<br>F4 |  | 4  |    |  |    |    |  |    |    |  |    |    |  |
| 5   |        | 45<br>37<br>25 | 245<br>165<br>A5 | ⌊ | 65<br>53<br>35 | 265<br>181<br>B5 | ▽ | 105<br>89<br>45 | 305<br>197<br>C5 | ∕ | 125<br>85<br>55 | 325<br>213<br>D5 | ε | 145<br>101<br>65 | 345<br>229<br>E5 | ∕ | 165<br>117<br>75 | 365<br>245<br>F5 |  | 5  |    |  |    |    |  |    |    |  |    |    |  |
| 6   |        | 46<br>38<br>26 | 246<br>166<br>A6 | ⌋ | 66<br>54<br>36 | 266<br>182<br>B6 | Φ | 106<br>90<br>46 | 306<br>198<br>C6 | √ | 126<br>86<br>56 | 326<br>214<br>D6 | φ | 146<br>102<br>66 | 346<br>230<br>E6 | f | 166<br>118<br>76 | 366<br>246<br>F6 |  | 6  |    |  |    |    |  |    |    |  |    |    |  |
| 7   |        | 47<br>39<br>27 | 247<br>167<br>A7 | ⟩ | 67<br>55<br>37 | 267<br>183<br>B7 | Γ | 107<br>91<br>47 | 307<br>199<br>C7 | Ω | 127<br>87<br>57 | 327<br>215<br>D7 | γ | 147<br>103<br>67 | 347<br>231<br>E7 | ω | 167<br>119<br>77 | 367<br>247<br>F7 |  | 7  |    |  |    |    |  |    |    |  |    |    |  |
| 8   |        | 50<br>40<br>28 | 250<br>168<br>A8 | ∕ | 68<br>56<br>38 | 268<br>184<br>B8 | ~ | 110<br>92<br>48 | 310<br>200<br>C8 | Ξ | 130<br>88<br>58 | 330<br>216<br>D8 | η | 150<br>104<br>68 | 350<br>232<br>E8 | ξ | 170<br>120<br>78 | 370<br>248<br>F8 |  | 8  |    |  |    |    |  |    |    |  |    |    |  |
| 9   |        | 51<br>41<br>29 | 251<br>169<br>A9 | ∕ | 71<br>57<br>39 | 271<br>185<br>B9 | ≈ | 111<br>93<br>49 | 311<br>201<br>C9 | Υ | 131<br>89<br>59 | 331<br>217<br>D9 | ι | 151<br>105<br>69 | 351<br>233<br>E9 | υ | 171<br>121<br>79 | 371<br>249<br>F9 |  | 9  |    |  |    |    |  |    |    |  |    |    |  |
| 10  |        | 52<br>42<br>30 | 252<br>170<br>AA | ∕ | 72<br>58<br>40 | 272<br>186<br>BA | Θ | 112<br>94<br>50 | 312<br>202<br>CA | ⊂ | 132<br>90<br>60 | 332<br>218<br>DA | θ | 152<br>106<br>70 | 352<br>234<br>EA | ζ | 172<br>122<br>80 | 372<br>250<br>FA |  | 10 |    |  |    |    |  |    |    |  |    |    |  |
| 11  |        | 53<br>43<br>31 | 253<br>171<br>AB | ∕ | 73<br>59<br>41 | 273<br>187<br>BB | × | 113<br>95<br>51 | 313<br>203<br>CB | ⊃ | 133<br>91<br>61 | 333<br>219<br>DB | κ | 153<br>107<br>71 | 353<br>235<br>EB | ← | 173<br>123<br>81 | 373<br>251<br>FB |  | 11 |    |  |    |    |  |    |    |  |    |    |  |
| 12  |        | 54<br>44<br>32 | 254<br>172<br>AC | ≤ | 74<br>60<br>42 | 274<br>188<br>BC | Λ | 114<br>96<br>52 | 314<br>204<br>CC | ⊂ | 134<br>92<br>62 | 334<br>220<br>DC | λ | 154<br>108<br>72 | 354<br>236<br>EC | ↑ | 174<br>124<br>82 | 374<br>252<br>FC |  | 12 |    |  |    |    |  |    |    |  |    |    |  |
| 13  |        | 55<br>45<br>33 | 255<br>173<br>AD | ≠ | 75<br>61<br>43 | 275<br>189<br>BD | ⇔ | 115<br>97<br>53 | 315<br>205<br>CD | ⊂ | 135<br>93<br>63 | 335<br>221<br>DD | ∕ | 155<br>109<br>73 | 355<br>237<br>ED | → | 175<br>125<br>83 | 375<br>253<br>FD |  | 13 |    |  |    |    |  |    |    |  |    |    |  |
| 14  |        | 56<br>46<br>34 | 256<br>174<br>AE | ≥ | 76<br>62<br>44 | 276<br>190<br>BE | ⇒ | 116<br>98<br>54 | 316<br>206<br>CE | ∧ | 136<br>94<br>64 | 336<br>222<br>DE | ∨ | 156<br>110<br>74 | 356<br>238<br>EE | ↓ | 176<br>126<br>84 | 376<br>254<br>FE |  | 14 |    |  |    |    |  |    |    |  |    |    |  |
| 15  |        | 57<br>47<br>35 | 257<br>175<br>AF | ∫ | 77<br>63<br>45 | 277<br>191<br>BF | ≡ | 117<br>99<br>55 | 317<br>207<br>CF | ∨ | 137<br>95<br>65 | 337<br>223<br>DF | ∂ | 157<br>111<br>75 | 357<br>239<br>EF |   |                  |                  |  | 15 |    |  |    |    |  |    |    |  |    |    |  |

### LEGEND

|          | GL  | GR   |            |
|----------|-----|------|------------|
|          | 4/1 | 12/1 | Column/Row |
| $\alpha$ | 101 | 301  | Octal      |
|          | 65  | 193  | Decimal    |
|          | 41  | C1   | Hex        |

**ISO Latin-1 Supplemental Character Set**

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

### LEGEND

|          |           |                   |
|----------|-----------|-------------------|
|          | <b>GR</b> |                   |
|          | 12/1      | <b>Column/Row</b> |
| <b>A</b> | 301       | <b>Octal</b>      |
|          | 193       | <b>Decimal</b>    |
|          | C1        | <b>Hex</b>        |

## 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 |        |                |                  | ° | 80<br>48<br>30 | 260<br>176<br>B0 |  | 100<br>64<br>40 | 300<br>192<br>C0 |  | 120<br>80<br>50 | 320<br>208<br>D0 | ℵ | 140<br>96<br>60  | 340<br>224<br>E0 |  | 160<br>112<br>70 | 360<br>240<br>F0 | Row 0 |
| 1     | ı      | 41<br>33<br>21 | 241<br>161<br>A1 | ± | 61<br>49<br>31 | 261<br>177<br>B1 |  | 101<br>65<br>41 | 301<br>183<br>C1 |  | 121<br>81<br>51 | 321<br>209<br>D1 | ⋈ | 141<br>97<br>61  | 341<br>225<br>E1 |  | 161<br>113<br>71 | 361<br>241<br>F1 | 1     |
| 2     | ⌘      | 42<br>34<br>22 | 242<br>162<br>A2 | 2 | 62<br>50<br>32 | 262<br>178<br>B2 |  | 102<br>66<br>42 | 302<br>194<br>C2 |  | 122<br>82<br>52 | 322<br>210<br>D2 | ⋊ | 142<br>98<br>62  | 342<br>226<br>E2 |  | 162<br>114<br>72 | 362<br>242<br>F2 | 2     |
| 3     | £      | 43<br>35<br>23 | 243<br>163<br>A3 | 3 | 63<br>51<br>33 | 263<br>179<br>B3 |  | 103<br>67<br>43 | 303<br>195<br>C3 |  | 123<br>83<br>53 | 323<br>211<br>D3 | ⋉ | 143<br>99<br>63  | 343<br>227<br>E3 |  | 163<br>115<br>73 | 363<br>243<br>F3 | 3     |
| 4     |        | 44<br>36<br>24 | 244<br>164<br>A4 |   | 64<br>52<br>34 | 264<br>180<br>B4 |  | 104<br>68<br>44 | 304<br>196<br>C4 |  | 124<br>84<br>54 | 324<br>212<br>D4 | ⋋ | 144<br>100<br>64 | 344<br>228<br>E4 |  | 164<br>116<br>74 | 364<br>244<br>F4 | 4     |
| 5     | ₣      | 45<br>37<br>25 | 245<br>165<br>A5 | μ | 65<br>53<br>35 | 265<br>181<br>B5 |  | 105<br>69<br>45 | 305<br>197<br>C5 |  | 125<br>85<br>55 | 325<br>213<br>D5 | ⋌ | 145<br>101<br>65 | 345<br>229<br>E5 |  | 165<br>117<br>75 | 365<br>245<br>F5 | 5     |
| 6     |        | 46<br>38<br>26 | 246<br>166<br>A6 | ¶ | 66<br>54<br>36 | 266<br>182<br>B6 |  | 106<br>70<br>46 | 306<br>198<br>C6 |  | 126<br>86<br>56 | 326<br>214<br>D6 | ⋍ | 146<br>102<br>66 | 346<br>230<br>E6 |  | 166<br>118<br>76 | 366<br>246<br>F6 | 6     |
| 7     | §      | 47<br>39<br>27 | 247<br>167<br>A7 | • | 67<br>55<br>37 | 267<br>183<br>B7 |  | 107<br>71<br>47 | 307<br>199<br>C7 |  | 127<br>87<br>57 | 327<br>215<br>D7 | ⋎ | 147<br>103<br>67 | 347<br>231<br>E7 |  | 167<br>119<br>77 | 367<br>247<br>F7 | 7     |
| 8     | ⱡ      | 50<br>40<br>28 | 250<br>168<br>A8 |   | 70<br>56<br>38 | 270<br>184<br>B8 |  | 110<br>72<br>48 | 310<br>200<br>C8 |  | 130<br>88<br>58 | 330<br>216<br>D8 | ⋏ | 150<br>104<br>68 | 350<br>232<br>E8 |  | 170<br>120<br>78 | 370<br>248<br>F8 | 8     |
| 9     | ©      | 51<br>41<br>29 | 251<br>169<br>A9 | 1 | 71<br>57<br>39 | 271<br>185<br>B9 |  | 111<br>73<br>49 | 311<br>201<br>C9 |  | 131<br>89<br>59 | 331<br>217<br>D9 | ⋐ | 151<br>105<br>69 | 351<br>233<br>E9 |  | 171<br>121<br>79 | 371<br>249<br>F9 | 9     |
| 10    | Ᵽ      | 52<br>42<br>2A | 252<br>170<br>AA | ° | 72<br>58<br>3A | 272<br>186<br>BA |  | 112<br>74<br>4A | 312<br>202<br>CA |  | 132<br>90<br>5A | 332<br>218<br>DA | ⋑ | 152<br>106<br>6A | 352<br>234<br>EA |  | 172<br>122<br>7A | 372<br>250<br>FA | 10    |
| 11    | ⬅      | 53<br>43<br>2B | 253<br>171<br>AB | » | 73<br>59<br>3B | 273<br>187<br>BB |  | 113<br>75<br>4B | 313<br>203<br>CB |  | 133<br>91<br>5B | 333<br>219<br>DB | ⋒ | 153<br>107<br>6B | 353<br>235<br>EB |  | 173<br>123<br>7B | 373<br>251<br>FB | 11    |
| 12    |        | 54<br>44<br>2C | 254<br>172<br>AC | ¼ | 74<br>60<br>3C | 274<br>188<br>BC |  | 114<br>76<br>4C | 314<br>204<br>CC |  | 134<br>92<br>5C | 334<br>220<br>DC | ⋓ | 154<br>108<br>6C | 354<br>236<br>EC |  | 174<br>124<br>7C | 374<br>252<br>FC | 12    |
| 13    |        | 55<br>45<br>2D | 255<br>173<br>AD | ½ | 75<br>61<br>3D | 275<br>189<br>BD |  | 115<br>77<br>4D | 315<br>205<br>CD |  | 135<br>93<br>5D | 335<br>221<br>DD | ⋔ | 155<br>109<br>6D | 355<br>237<br>ED |  | 175<br>125<br>7D | 375<br>253<br>FD | 13    |
| 14    |        | 56<br>46<br>2E | 256<br>174<br>AE |   | 76<br>62<br>3E | 276<br>190<br>BE |  | 116<br>78<br>4E | 316<br>206<br>CE |  | 136<br>94<br>5E | 336<br>222<br>DE | ⋕ | 156<br>110<br>6E | 356<br>238<br>EE |  | 176<br>126<br>7E | 376<br>254<br>FE | 14    |
| 15    |        | 57<br>47<br>2F | 257<br>175<br>AF | ¾ | 77<br>63<br>3F | 277<br>191<br>BF |  | 117<br>79<br>4F | 317<br>207<br>CF |  | 137<br>95<br>5F | 337<br>223<br>DF | ⋖ | 157<br>111<br>6F | 357<br>239<br>EF |  |                  |                  | 15    |

## LEGEND

|  | GL  | GR   |            |
|--|-----|------|------------|
|  | 4/1 | 12/1 | Column/Row |
|  | 101 | 301  | Octal      |
|  | 65  | 193  | Decimal    |
|  | 41  | C1   | 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<br>160<br>A0 | °  |  | 260<br>176<br>B0 |    |  | 300<br>192<br>C0 |    |  | 320<br>208<br>D0 | ℵ  |  | 340<br>224<br>E0 | ן  |  | 360<br>240<br>F0 |    | Row 0 |  |
| 1     |        | 241<br>161<br>A1 | ±  |  | 261<br>177<br>B1 |    |  | 301<br>193<br>C1 |    |  | 321<br>209<br>D1 | ב  |  | 341<br>225<br>E1 | ס  |  | 361<br>241<br>F1 |    | 1     |  |
| 2     | ⤴      | 242<br>162<br>A2 | 2  |  | 262<br>178<br>B2 |    |  | 302<br>194<br>C2 |    |  | 322<br>210<br>D2 | ג  |  | 342<br>226<br>E2 | ט  |  | 362<br>242<br>F2 |    | 2     |  |
| 3     | £      | 243<br>163<br>A3 | 3  |  | 263<br>179<br>B3 |    |  | 303<br>195<br>C3 |    |  | 323<br>211<br>D3 | ד  |  | 343<br>227<br>E3 | ף  |  | 363<br>243<br>F3 |    | 3     |  |
| 4     | Ɱ      | 244<br>164<br>A4 | ,  |  | 264<br>180<br>B4 |    |  | 304<br>196<br>C4 |    |  | 324<br>212<br>D4 | ה  |  | 344<br>228<br>E4 | פ  |  | 364<br>244<br>F4 |    | 4     |  |
| 5     | ₣      | 245<br>165<br>A5 | μ  |  | 265<br>181<br>B5 |    |  | 305<br>197<br>C5 |    |  | 325<br>213<br>D5 | ו  |  | 345<br>229<br>E5 | ץ  |  | 365<br>245<br>F5 |    | 5     |  |
| 6     |        | 246<br>166<br>A6 | ¶  |  | 266<br>182<br>B6 |    |  | 306<br>198<br>C6 |    |  | 326<br>214<br>D6 | ז  |  | 346<br>230<br>E6 | כ  |  | 366<br>246<br>F6 |    | 6     |  |
| 7     | \$     | 247<br>167<br>A7 | •  |  | 267<br>183<br>B7 |    |  | 307<br>199<br>C7 |    |  | 327<br>215<br>D7 | ח  |  | 347<br>231<br>E7 | ק  |  | 367<br>247<br>F7 |    | 7     |  |
| 8     | "      | 250<br>168<br>A8 | ˆ  |  | 270<br>184<br>B8 |    |  | 310<br>200<br>C8 |    |  | 330<br>216<br>D8 | ט  |  | 350<br>232<br>E8 | ר  |  | 370<br>248<br>F8 |    | 8     |  |
| 9     | ©      | 251<br>169<br>A9 | 1  |  | 271<br>185<br>B9 |    |  | 311<br>201<br>C9 |    |  | 331<br>217<br>D9 | י  |  | 351<br>233<br>E9 | ש  |  | 371<br>249<br>F9 |    | 9     |  |
| 10    | ×      | 252<br>170<br>AA | ÷  |  | 272<br>186<br>BA |    |  | 312<br>202<br>CA |    |  | 332<br>218<br>DA | ך  |  | 352<br>234<br>EA | ת  |  | 372<br>250<br>FA |    | 10    |  |
| 11    | ↩      | 253<br>171<br>AB | »  |  | 273<br>187<br>BB |    |  | 313<br>203<br>CB |    |  | 333<br>219<br>DB | כּ |  | 353<br>235<br>EB |    |  | 373<br>251<br>FB |    | 11    |  |
| 12    | ┐      | 254<br>172<br>AC | ¼  |  | 274<br>188<br>BC |    |  | 314<br>204<br>CC |    |  | 334<br>220<br>DC | ל  |  | 354<br>236<br>EC |    |  | 374<br>252<br>FC |    | 12    |  |
| 13    | -      | 255<br>173<br>AD | ½  |  | 275<br>189<br>BD |    |  | 315<br>205<br>CD |    |  | 335<br>221<br>DD | ם  |  | 355<br>237<br>ED |    |  | 375<br>253<br>FD |    | 13    |  |
| 14    | (®)    | 256<br>174<br>AE | ¾  |  | 276<br>190<br>BE |    |  | 316<br>206<br>CE |    |  | 336<br>222<br>DE | נ  |  | 356<br>238<br>EE |    |  | 376<br>254<br>FE |    | 14    |  |
| 15    | -      | 257<br>175<br>AF |    |  | 277<br>191<br>BF |    |  | 317<br>207<br>CF | =  |  | 337<br>223<br>DF | וּ |  | 357<br>239<br>EF |    |  | 377<br>255<br>FF |    | 15    |  |

## LEGEND

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



### DEC 7-Bit Turkish Character Set

|       |        | GL             | GR               |   | GL             | GR               |   | GL              | GR               |   | GL               | GR               |   | 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               |       | 8  | 16 |  | 9  | 17 |  | 10 | 18 |  | 11 | 19 |  |
| Row 0 |        |                |                  | 0 | 80<br>48<br>30 | 260<br>176<br>B0 | İ | 100<br>64<br>40 | 300<br>192<br>C0 | P | 120<br>320<br>80 | 320<br>208<br>D0 | Ğ | 140<br>96<br>60  | 340<br>224<br>E0 | p | 160<br>112<br>70 | 360<br>240<br>F0 | Row 0 |    |    |  |    |    |  |    |    |  |    |    |  |
| 1     | ı      | 41<br>33<br>21 | 241<br>161<br>A1 | 1 | 61<br>49<br>31 | 261<br>177<br>B1 | A | 101<br>65<br>41 | 301<br>193<br>C1 | Q | 121<br>81<br>D1  | 321<br>209<br>D1 | a | 141<br>97<br>61  | 341<br>225<br>E1 | q | 161<br>113<br>71 | 361<br>241<br>F1 | 1     |    |    |  |    |    |  |    |    |  |    |    |  |
| 2     | "      | 42<br>34<br>22 | 242<br>162<br>A2 | 2 | 62<br>50<br>32 | 262<br>178<br>B2 | B | 102<br>66<br>42 | 302<br>194<br>C2 | R | 122<br>82<br>D2  | 322<br>210<br>D2 | b | 142<br>98<br>62  | 342<br>226<br>E2 | r | 162<br>114<br>72 | 362<br>242<br>F2 | 2     |    |    |  |    |    |  |    |    |  |    |    |  |
| 3     | #      | 43<br>35<br>23 | 243<br>163<br>A3 | 3 | 63<br>51<br>33 | 263<br>179<br>B3 | C | 103<br>67<br>43 | 303<br>195<br>C3 | S | 123<br>83<br>D3  | 323<br>211<br>D3 | c | 143<br>99<br>63  | 343<br>227<br>E3 | s | 163<br>115<br>73 | 363<br>243<br>F3 | 3     |    |    |  |    |    |  |    |    |  |    |    |  |
| 4     | \$     | 44<br>36<br>24 | 244<br>164<br>A4 | 4 | 64<br>52<br>34 | 264<br>180<br>B4 | D | 104<br>68<br>44 | 304<br>196<br>C4 | T | 124<br>84<br>D4  | 324<br>212<br>D4 | d | 144<br>100<br>64 | 344<br>228<br>E4 | t | 164<br>116<br>74 | 364<br>244<br>F4 | 4     |    |    |  |    |    |  |    |    |  |    |    |  |
| 5     | %      | 45<br>37<br>25 | 245<br>165<br>A5 | 5 | 65<br>53<br>35 | 265<br>181<br>B5 | E | 105<br>69<br>45 | 305<br>197<br>C5 | U | 125<br>85<br>D5  | 325<br>213<br>D5 | e | 145<br>101<br>65 | 345<br>229<br>E5 | u | 165<br>117<br>75 | 365<br>245<br>F5 | 5     |    |    |  |    |    |  |    |    |  |    |    |  |
| 6     | ğ      | 46<br>38<br>26 | 246<br>166<br>A6 | 6 | 66<br>54<br>36 | 266<br>182<br>B6 | F | 106<br>70<br>46 | 306<br>198<br>C6 | V | 126<br>86<br>D6  | 326<br>214<br>D6 | f | 146<br>102<br>66 | 346<br>230<br>E6 | v | 166<br>118<br>76 | 366<br>246<br>F6 | 6     |    |    |  |    |    |  |    |    |  |    |    |  |
| 7     | '      | 47<br>39<br>27 | 247<br>167<br>A7 | 7 | 67<br>55<br>37 | 267<br>183<br>B7 | G | 107<br>71<br>47 | 307<br>199<br>C7 | W | 127<br>87<br>D7  | 327<br>215<br>D7 | g | 147<br>103<br>67 | 347<br>231<br>E7 | w | 167<br>119<br>77 | 367<br>247<br>F7 | 7     |    |    |  |    |    |  |    |    |  |    |    |  |
| 8     | (      | 50<br>42<br>28 | 250<br>168<br>A8 | 8 | 70<br>56<br>38 | 270<br>184<br>B8 | H | 110<br>72<br>48 | 310<br>200<br>C8 | X | 130<br>88<br>D8  | 330<br>216<br>D8 | h | 150<br>104<br>68 | 350<br>232<br>E8 | x | 170<br>120<br>78 | 370<br>248<br>F8 | 8     |    |    |  |    |    |  |    |    |  |    |    |  |
| 9     | )      | 51<br>43<br>29 | 251<br>169<br>A9 | 9 | 71<br>57<br>39 | 271<br>185<br>B9 | I | 111<br>73<br>49 | 311<br>201<br>C9 | Y | 131<br>89<br>D9  | 331<br>217<br>D9 | i | 151<br>105<br>69 | 351<br>233<br>E9 | y | 171<br>121<br>79 | 371<br>249<br>F9 | 9     |    |    |  |    |    |  |    |    |  |    |    |  |
| 10    | *      | 52<br>44<br>2A | 252<br>170<br>AA | : | 72<br>58<br>3A | 272<br>186<br>BA | J | 112<br>74<br>4A | 312<br>202<br>CA | Z | 132<br>90<br>5A  | 332<br>218<br>DA | j | 152<br>106<br>6A | 352<br>234<br>EA | z | 172<br>122<br>7A | 372<br>250<br>FA | 10    |    |    |  |    |    |  |    |    |  |    |    |  |
| 11    | +      | 53<br>45<br>2B | 253<br>171<br>AB | ; | 73<br>59<br>3B | 273<br>187<br>BB | K | 113<br>75<br>4B | 313<br>203<br>CB | Ş | 133<br>91<br>5B  | 333<br>219<br>DB | k | 153<br>107<br>6B | 353<br>235<br>EB | ş | 173<br>123<br>7B | 373<br>251<br>FB | 11    |    |    |  |    |    |  |    |    |  |    |    |  |
| 12    | ,      | 54<br>46<br>2C | 254<br>172<br>AC | < | 74<br>60<br>3C | 274<br>188<br>BC | L | 114<br>76<br>4C | 314<br>204<br>CC | Ö | 134<br>92<br>5C  | 334<br>220<br>DC | l | 154<br>108<br>6C | 354<br>236<br>EC | ö | 174<br>124<br>7C | 374<br>252<br>FC | 12    |    |    |  |    |    |  |    |    |  |    |    |  |
| 13    | -      | 55<br>47<br>2D | 255<br>173<br>AD | = | 75<br>61<br>3D | 275<br>189<br>BD | M | 115<br>77<br>4D | 315<br>205<br>CD | Ç | 135<br>93<br>5D  | 335<br>221<br>DD | m | 155<br>109<br>6D | 355<br>237<br>ED | ç | 175<br>125<br>7D | 375<br>253<br>FD | 13    |    |    |  |    |    |  |    |    |  |    |    |  |
| 14    | .      | 56<br>48<br>2E | 256<br>174<br>AE | > | 76<br>62<br>3E | 276<br>190<br>BE | N | 116<br>78<br>4E | 316<br>206<br>CE | Ü | 136<br>94<br>5E  | 336<br>222<br>DE | n | 156<br>110<br>6E | 356<br>238<br>EE | ü | 176<br>126<br>7E | 376<br>254<br>FE | 14    |    |    |  |    |    |  |    |    |  |    |    |  |
| 15    | /      | 57<br>49<br>2F | 257<br>175<br>AF | ? | 77<br>63<br>3F | 277<br>191<br>BF | O | 117<br>79<br>4F | 317<br>207<br>CF | — | 137<br>95<br>5F  | 337<br>223<br>DF | o | 157<br>111<br>6F | 357<br>239<br>EF |   |                  |                  | 15    |    |    |  |    |    |  |    |    |  |    |    |  |

## LEGEND

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

## LEGEND

|   | GL              | GR               |                         |
|---|-----------------|------------------|-------------------------|
|   | 4/1             | 12/1             | Column/Row              |
| À | 101<br>65<br>41 | 301<br>193<br>C1 | Octal<br>Decimal<br>Hex |

## DEC Greek Supplemental Character Set

|       |        | GL                    | GR               |   | GL                   | GR               |   | GL                    | GR               |   | GL                    | GR               |   | 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<br>48<br>30<br>B0 | 260<br>176<br>B0 | ˆ | 100<br>64<br>C0       | 300<br>192<br>C0 |   | 120<br>80<br>50<br>D0 | 320<br>208<br>D0 | ¨ | 140<br>96<br>60<br>E0  | 340<br>224<br>E0 |   | 160<br>112<br>70<br>F0 | 360<br>240<br>F0 | Row 0 |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 1     | i      | 41<br>33<br>21<br>A1  | 241<br>161<br>A1 | ± | 61<br>49<br>31<br>B1 | 261<br>177<br>B1 | A | 101<br>65<br>41<br>C1 | 301<br>193<br>C1 | Π | 121<br>81<br>51<br>D1 | 321<br>209<br>D1 | α | 141<br>97<br>61<br>E1  | 341<br>225<br>E1 | π | 161<br>113<br>71<br>F1 | 361<br>241<br>F1 | 1     |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 2     | ¢      | 42<br>34<br>22<br>A2  | 242<br>162<br>A2 | 2 | 62<br>50<br>32<br>B2 | 262<br>178<br>B2 | B | 102<br>66<br>42<br>C2 | 302<br>194<br>C2 | P | 122<br>82<br>52<br>D2 | 322<br>210<br>D2 | β | 142<br>98<br>62<br>E2  | 342<br>226<br>E2 | ρ | 162<br>114<br>72<br>F2 | 362<br>242<br>F2 | 2     |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 3     | £      | 43<br>35<br>23<br>A3  | 243<br>163<br>A3 | 3 | 63<br>51<br>33<br>B3 | 263<br>179<br>B3 | Γ | 103<br>67<br>43<br>C3 | 303<br>195<br>C3 | Σ | 123<br>83<br>53<br>D3 | 323<br>211<br>D3 | γ | 143<br>99<br>63<br>E3  | 343<br>227<br>E3 | σ | 163<br>115<br>73<br>F3 | 363<br>243<br>F3 | 3     |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 4     |        | 44<br>36<br>24<br>A4  | 244<br>164<br>A4 |   | 64<br>52<br>34<br>B4 | 264<br>180<br>B4 | Δ | 104<br>68<br>44<br>C4 | 304<br>196<br>C4 | T | 124<br>84<br>54<br>D4 | 324<br>212<br>D4 | δ | 144<br>100<br>64<br>E4 | 344<br>228<br>E4 | τ | 164<br>116<br>74<br>F4 | 364<br>244<br>F4 | 4     |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 5     | ¥      | 45<br>37<br>25<br>A5  | 245<br>165<br>A5 | μ | 65<br>53<br>35<br>B5 | 265<br>181<br>B5 | E | 105<br>69<br>45<br>C5 | 305<br>197<br>C5 | Y | 125<br>85<br>55<br>D5 | 325<br>213<br>D5 | ε | 145<br>101<br>65<br>E5 | 345<br>229<br>E5 | υ | 165<br>117<br>75<br>F5 | 365<br>245<br>F5 | 5     |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 6     |        | 46<br>38<br>26<br>A6  | 246<br>166<br>A6 | ¶ | 66<br>54<br>36<br>B6 | 266<br>182<br>B6 | Z | 106<br>70<br>46<br>C6 | 306<br>198<br>C6 | Φ | 126<br>86<br>56<br>D6 | 326<br>214<br>D6 | ζ | 146<br>102<br>66<br>E6 | 346<br>230<br>E6 | φ | 166<br>118<br>76<br>F6 | 366<br>246<br>F6 | 6     |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 7     | §      | 47<br>39<br>27<br>A7  | 247<br>167<br>A7 | • | 67<br>55<br>37<br>B7 | 267<br>183<br>B7 | H | 107<br>71<br>47<br>C7 | 307<br>199<br>C7 | X | 127<br>87<br>57<br>D7 | 327<br>215<br>D7 | η | 147<br>103<br>67<br>E7 | 347<br>231<br>E7 | χ | 167<br>119<br>77<br>F7 | 367<br>247<br>F7 | 7     |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 8     | ⌘      | 50<br>40<br>28<br>A8  | 250<br>168<br>A8 |   | 70<br>58<br>38<br>B8 | 270<br>184<br>B8 | Θ | 110<br>72<br>48<br>C8 | 310<br>200<br>C8 | Ψ | 130<br>88<br>58<br>D8 | 330<br>216<br>D8 | θ | 150<br>104<br>68<br>E8 | 350<br>232<br>E8 | ψ | 170<br>120<br>78<br>F8 | 370<br>248<br>F8 | 8     |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 9     | ©      | 51<br>41<br>29<br>A9  | 251<br>169<br>A9 | 1 | 71<br>57<br>39<br>B9 | 271<br>185<br>B9 | I | 111<br>73<br>49<br>C9 | 311<br>201<br>C9 | Ω | 131<br>89<br>59<br>D9 | 331<br>217<br>D9 | ι | 151<br>105<br>69<br>E9 | 351<br>233<br>E9 | ω | 171<br>121<br>79<br>F9 | 371<br>249<br>F9 | 9     |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 10    | ª      | 52<br>42<br>170<br>2A | 252<br>170<br>AA | º | 72<br>58<br>3A<br>BA | 272<br>186<br>BA | K | 112<br>74<br>4A<br>CA | 312<br>202<br>CA | ¡ | 132<br>90<br>5A<br>DA | 332<br>218<br>DA | κ | 152<br>106<br>6A<br>EA | 352<br>234<br>EA | ς | 172<br>122<br>7A<br>FA | 372<br>250<br>FA | 10    |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 11    | «      | 53<br>43<br>2B<br>AB  | 253<br>171<br>2B | » | 73<br>59<br>3B<br>BB | 273<br>187<br>BB | Λ | 113<br>75<br>4B<br>CB | 313<br>203<br>CB | ¡ | 133<br>91<br>5B<br>DB | 333<br>219<br>DB | λ | 153<br>107<br>6B<br>EB | 353<br>235<br>EB | ¡ | 173<br>123<br>7B<br>FB | 373<br>251<br>FB | 11    |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 12    |        | 54<br>44<br>172<br>2C | 254<br>172<br>AC | ¼ | 74<br>60<br>3C<br>BC | 274<br>188<br>BC | M | 114<br>76<br>4C<br>CC | 314<br>204<br>CC | ¡ | 134<br>92<br>5D<br>DC | 334<br>220<br>DC | μ | 154<br>108<br>6C<br>EC | 354<br>236<br>EC | ¡ | 174<br>124<br>7C<br>FC | 374<br>252<br>FC | 12    |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 13    |        | 55<br>45<br>173<br>2D | 255<br>173<br>AD | ½ | 75<br>61<br>3D<br>BD | 275<br>189<br>BD | N | 115<br>77<br>4D<br>CD | 315<br>205<br>CD | ¡ | 135<br>93<br>5D<br>DD | 335<br>221<br>DD | ν | 155<br>109<br>6D<br>ED | 355<br>237<br>ED | ¡ | 175<br>125<br>7D<br>FD | 375<br>253<br>FD | 13    |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 14    |        | 56<br>46<br>174<br>2E | 256<br>174<br>AE |   | 76<br>62<br>3E<br>BE | 276<br>190<br>BE | Ξ | 116<br>78<br>4E<br>CE | 316<br>206<br>CE |   | 136<br>94<br>5E<br>DE | 336<br>223<br>DE | ξ | 156<br>110<br>6E<br>EE | 356<br>238<br>EE |   | 176<br>126<br>7E<br>FE | 376<br>254<br>FE | 14    |    |    |  |    |    |  |    |    |  |    |    |  |  |
| 15    |        | 57<br>47<br>175<br>2F | 257<br>175<br>AF | ℓ | 77<br>63<br>3F<br>BF | 277<br>191<br>BF | O | 117<br>79<br>4F<br>CF | 317<br>207<br>CF | ¡ | 137<br>95<br>5F<br>DF | 337<br>223<br>DF | ο | 157<br>111<br>6F<br>EF | 357<br>239<br>EF |   | 177<br>127<br>7F<br>FF | 377<br>255<br>FF | 15    |    |    |  |    |    |  |    |    |  |    |    |  |  |

### LEGEND

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

## LEGEND

|     | GL   | GR         |
|-----|------|------------|
| 4/1 | 12/1 | Column/Row |
| ´   | 101  | Octal      |
| À   | 65   | Decimal    |
|     | 41   | 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<br>32<br>20<br>A0 |  | A  | 60<br>48<br>30<br>B0 |  | P  | 100<br>84<br>40<br>C0 |  | a  | 120<br>80<br>50<br>D0 |  | p  | 140<br>96<br>60<br>E0  |  | N° | 160<br>112<br>70<br>F0 | Row |
| 1   |        | Ë    | 41<br>33<br>21<br>A1 |  | Б  | 61<br>49<br>31<br>B1 |  | С  | 101<br>85<br>41<br>C1 |  | δ  | 121<br>81<br>51<br>D1 |  | с  | 141<br>97<br>61<br>E1  |  | ë  | 161<br>113<br>71<br>F1 | 1   |
| 2   |        | Ѧ    | 42<br>34<br>22<br>A2 |  | В  | 62<br>50<br>32<br>B2 |  | Т  | 102<br>86<br>42<br>C2 |  | в  | 122<br>82<br>52<br>D2 |  | т  | 142<br>98<br>62<br>E2  |  | ѧ  | 162<br>114<br>72<br>F2 | 2   |
| 3   |        | Г    | 43<br>35<br>23<br>A3 |  | Г  | 63<br>51<br>33<br>B3 |  | У  | 103<br>87<br>43<br>C3 |  | г  | 123<br>83<br>53<br>D3 |  | у  | 143<br>99<br>63<br>E3  |  | г  | 163<br>115<br>73<br>F3 | 3   |
| 4   |        | €    | 44<br>36<br>24<br>A4 |  | Д  | 64<br>52<br>34<br>B4 |  | Ф  | 104<br>88<br>44<br>C4 |  | д  | 124<br>84<br>54<br>D4 |  | ф  | 144<br>100<br>64<br>E4 |  | €  | 164<br>116<br>74<br>F4 | 4   |
| 5   |        | Ѕ    | 45<br>37<br>25<br>A5 |  | Е  | 65<br>53<br>35<br>B5 |  | Х  | 105<br>89<br>45<br>C5 |  | е  | 125<br>85<br>55<br>D5 |  | х  | 145<br>101<br>65<br>E5 |  | ѕ  | 165<br>117<br>75<br>F5 | 5   |
| 6   |        | І    | 46<br>38<br>26<br>A6 |  | Ж  | 66<br>54<br>36<br>B6 |  | Ц  | 106<br>90<br>46<br>C6 |  | ж  | 126<br>86<br>56<br>D6 |  | ц  | 146<br>102<br>66<br>E6 |  | і  | 166<br>118<br>76<br>F6 | 6   |
| 7   |        | İ    | 47<br>39<br>27<br>A7 |  | Э  | 67<br>55<br>37<br>B7 |  | Ч  | 107<br>91<br>47<br>C7 |  | э  | 127<br>87<br>57<br>D7 |  | ч  | 147<br>103<br>67<br>E7 |  | ї  | 167<br>119<br>77<br>F7 | 7   |
| 8   |        | Ј    | 48<br>40<br>28<br>A8 |  | И  | 68<br>56<br>38<br>B8 |  | Ш  | 108<br>92<br>48<br>C8 |  | и  | 128<br>88<br>58<br>D8 |  | ш  | 148<br>104<br>68<br>E8 |  | ј  | 168<br>120<br>78<br>F8 | 8   |
| 9   |        | Љ    | 49<br>41<br>29<br>A9 |  | Й  | 69<br>57<br>39<br>B9 |  | Щ  | 109<br>93<br>49<br>C9 |  | й  | 129<br>89<br>59<br>D9 |  | щ  | 149<br>105<br>69<br>E9 |  | љ  | 169<br>121<br>79<br>F9 | 9   |
| 10  |        | Њ    | 50<br>42<br>30<br>AA |  | К  | 70<br>58<br>3A<br>BA |  | Ъ  | 110<br>94<br>4A<br>CA |  | к  | 130<br>90<br>5A<br>DA |  | ъ  | 150<br>106<br>6A<br>EA |  | њ  | 170<br>122<br>7A<br>FA | 10  |
| 11  |        | Ћ    | 51<br>43<br>31<br>AB |  | Љ  | 71<br>59<br>3B<br>BB |  | Ы  | 111<br>95<br>4B<br>CB |  | л  | 131<br>91<br>5B<br>DB |  | ы  | 151<br>107<br>6B<br>EB |  | ћ  | 171<br>123<br>7B<br>FB | 11  |
| 12  |        | Ќ    | 52<br>44<br>32<br>AC |  | М  | 72<br>60<br>3C<br>BC |  | Ь  | 112<br>96<br>4C<br>CC |  | м  | 132<br>92<br>5C<br>DC |  | ь  | 152<br>108<br>6C<br>EC |  | ќ  | 172<br>124<br>7C<br>FC | 12  |
| 13  |        | -    | 53<br>45<br>33<br>AD |  | Н  | 73<br>61<br>3D<br>BD |  | Э  | 113<br>97<br>4D<br>CD |  | н  | 133<br>93<br>5D<br>DD |  | э  | 153<br>109<br>6D<br>ED |  | Ѕ  | 173<br>125<br>7D<br>FD | 13  |
| 14  |        | Ў    | 54<br>46<br>34<br>AE |  | О  | 74<br>62<br>3E<br>BE |  | Ю  | 114<br>98<br>4E<br>CE |  | о  | 134<br>94<br>5E<br>DE |  | ю  | 154<br>110<br>6E<br>EE |  | ў  | 174<br>126<br>7E<br>FE | 14  |
| 15  |        | Ў    | 55<br>47<br>35<br>AF |  | П  | 75<br>63<br>3F<br>BF |  | Я  | 115<br>99<br>4F<br>CF |  | п  | 135<br>95<br>5F<br>DF |  | я  | 155<br>111<br>6F<br>EF |  | Ѱ  | 175<br>127<br>7F<br>FF | 15  |

## LEGEND

|   | GL              | GR               |
|---|-----------------|------------------|
|   | 4/1             | 12/1             |
| C | 101<br>65<br>41 | 301<br>193<br>C1 |

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

### LEGEND

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

## LEGEND

|   | GR               |                         |
|---|------------------|-------------------------|
|   | 12/1             | Column/Row              |
| Á | 301<br>193<br>C1 | Octal<br>Decimal<br>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  | ⌘  | ⌘  | ó  | -  |     |
| 1 | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | ß  | ±  |     |
| 2 | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | ö  | -  |     |
| 3 | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | ë  | ð  | 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  | â  | û  | ä  | Ã  | ä  | í  | μ  | ÷   |
| 7 | '  | 7  | G  | W  | g  | w  | ç  | ù  | ó  | À  | Ã  | î  | þ  | ¸   |
| 8 | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ı  | ©  | ⌘  | ÿ  | þ  | °   |
| 9 | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ®  | ⌘  | ⌘  | ı  | Ú  | ... |
| A | *  | :  | J  | Z  | j  | z  | è  | Ü  | ™  |    | ≡  | ı  | Û  | ·   |
| B | +  | ;  | K  | [  | k  | {  | ı  | ø  | ½  | ⌘  | ⌘  | ⌘  | Ü  | ¹   |
| C | ,  | <  | L  | \  | l  |    | ı  | £  | ¼  | ⌘  | ⌘  | ⌘  | Ý  | ³   |
| D | -  | =  | M  | ]  | m  | }  | ı  | ø  | ı  | ç  | =  | :  | Ý  | ²   |
| E | .  | >  | N  | ^  | n  | ~  | Ä  | ×  | «  | ¥  | ⌘  | ı  | -  | •   |
| F | /  | ?  | O  | _  | o  |    | Ä  | f  | »  | ı  | ×  | ⌘  |    |     |



# Generic Character Set Tables

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

| Code Page<br>210 |    |    |    |    |    |    |    | Code Page<br>220 |   |    |    |    |    |    |    | Code Page<br>437 Greek |    |  |    |    |    |    |    |    |    |    |   |
|------------------|----|----|----|----|----|----|----|------------------|---|----|----|----|----|----|----|------------------------|----|--|----|----|----|----|----|----|----|----|---|
|                  | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0               |   | 80 | 90 | A0 | B0 | C0 | D0 | E0                     | F0 |  | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |   |
| 0                | A  | P  | ι  | ⋮  | ⊥  | ⊥  |    | Ω                | 0 | Ç  | É  | á  | ⋮  | ⊥  | ⊥  | α                      | ≡  |  | 0  | A  | P  | ι  | ⋮  | ⊥  | ⊥  | ω  | Ω |
| 1                | B  | Σ  | κ  | ⋮  | ⊥  | ⊥  | ά  | ±                | 1 | ü  | í  | í  | ⋮  | ⊥  | ⊥  | β                      | ±  |  | 1  | B  | Σ  | κ  | ⋮  | ⊥  | ⊥  | ά  | ± |
| 2                | Γ  | T  | λ  | ⋮  | ⊥  | ⊥  | έ  | ≥                | 2 | é  | ó  | ó  | ⋮  | ⊥  | ⊥  | Γ                      | ≥  |  | 2  | Γ  | T  | λ  | ⋮  | ⊥  | ⊥  | έ  | ≥ |
| 3                | Δ  | Y  | μ  |    | ⊥  | ⊥  | ή  | ≤                | 3 | â  | ô  | ú  |    | ⊥  | ⊥  | π                      | ≤  |  | 3  | Δ  | Y  | μ  |    | ⊥  | ⊥  | ή  | ≤ |
| 4                | E  | Φ  | ν  | ⊥  | —  | ⊥  | ï  | ∫                | 4 | ä  | ö  | ñ  | ⊥  | —  | ⊥  | Σ                      | ∫  |  | 4  | E  | Φ  | ν  | ⊥  | —  | ⊥  | ï  | ∫ |
| 5                | Z  | X  | ξ  | ⊥  | ⊥  | ⊥  | í  | J                | 5 | à  | ò  | Ñ  | ⊥  | ⊥  | ⊥  | σ                      | J  |  | 5  | Z  | X  | ξ  | ⊥  | ⊥  | ⊥  | í  | J |
| 6                | H  | Ψ  | ο  | ⊥  | ⊥  | ⊥  | ó  | ÷                | 6 | À  | û  | ä  | ⊥  | ⊥  | ⊥  | μ                      | ÷  |  | 6  | H  | Ψ  | ο  | ⊥  | ⊥  | ⊥  | ó  | ÷ |
| 7                | Θ  | Ω  | π  | ⊥  | ⊥  | ⊥  | ú  | ≈                | 7 | Ç  | ù  | ο  | ⊥  | ⊥  | ⊥  | τ                      | ≈  |  | 7  | Θ  | Ω  | π  | ⊥  | ⊥  | ⊥  | ú  | ≈ |
| 8                | I  | α  | ρ  | ⊥  | ⊥  | ⊥  | ü  | °                | 8 | ê  | Á  | ι  | ⊥  | ⊥  | ⊥  | Φ                      | °  |  | 8  | I  | α  | ρ  | ⊥  | ⊥  | ⊥  | ü  | ° |
| 9                | K  | β  | σ  | ⊥  | ⊥  | ⊥  | ω  | £                | 9 | ë  | Ö  | l  | ⊥  | ⊥  | ⊥  | θ                      | •  |  | 9  | K  | β  | σ  | ⊥  | ⊥  | ⊥  | ω  | £ |
| A                | Λ  | Υ  | ς  | ⊥  | ⊥  | ⊥  | À  | •                | A | è  | Û  | L  | ⊥  | ⊥  | ⊥  | Ω                      | •  |  | A  | Λ  | Υ  | ς  | ⊥  | ⊥  | ⊥  | À  | ¥ |
| B                | M  | δ  | τ  | ⊥  | ⊥  | ■  | £  | √                | B | ï  | ò  | ½  | ⊥  | ⊥  | ■  | δ                      | √  |  | B  | M  | δ  | τ  | ⊥  | ⊥  | ■  | £  | √ |
| C                | N  | ε  | υ  | ⊥  | ⊥  | ■  | Η  | n                | C | î  | £  | ¼  | ⊥  | ⊥  | ■  | ∞                      | n  |  | C  | N  | ε  | υ  | ⊥  | ⊥  | ■  | Η  | n |
| D                | Ξ  | ξ  | φ  | ⊥  | =  | ■  | Ι  | ²                | D | ì  | Ú  | ι  | ⊥  | =  | ■  | ∅                      | ²  |  | D  | Ξ  | ξ  | φ  | ⊥  | =  | ■  | Ι  | ² |
| E                | O  | η  | χ  | ⊥  | ⊥  | ■  | Ο  | ■                | E | Ä  | £  | «  | ⊥  | ⊥  | ■  | €                      | ■  |  | E  | O  | η  | χ  | ⊥  | ⊥  | ■  | Ο  | ■ |
| F                | Π  | θ  | ψ  | ⊥  | ⊥  | ■  | Υ  | ω                | F | È  | ÿ  | »  | ⊥  | ⊥  | ■  | ∩                      |    |  | F  | Π  | θ  | ψ  | ⊥  | ⊥  | ■  | Υ  |   |

| Code Page<br>850 |    |    |    |    |    |    |    |    | Code Page<br>852 |    |    |    |    |    |    |    |    | Code Page<br>853 |    |    |    |    |    |    |    |    |
|------------------|----|----|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|----|
|                  | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |                  | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |                  | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |
| 0                | Ç  | É  | á  | ▯  | Ł  | ő  | Ó  | –  | 0                | Ç  | É  | á  | ▯  | Ł  | đ  | Ó  | –  | 0                | Ç  | É  | á  | ▯  | Ł  |    | Ó  | –  |
| 1                | ü  | æ  | í  | ▯  | Ł  | Đ  | β  | ±  | 1                | ü  | Ł  | í  | ▯  | Ł  | Đ  | β  | ˝  | 1                | ü  | ć  | í  | ▯  | Ł  |    | β  |    |
| 2                | é  | Æ  | ó  | ▯  | Ł  | Ê  | Ô  | =  | 2                | é  | Í  | ó  | ▯  | Ł  | Đ  | Ô  | ,  | 2                | é  | Ć  | ó  | ▯  | Ł  | Ê  | Ô  | ł  |
| 3                | â  | ô  | ú  |    |    | È  | ò  | ¾  | 3                | â  | ô  | ú  |    |    | È  | Ń  | ˘  | 3                | â  | ô  | ú  |    |    | È  | ò  | h  |
| 4                | ä  | ö  | ñ  |    | –  | È  | õ  | ¶  | 4                | ä  | ö  | Ą  |    | –  | đ  | ń  | ˘  | 4                | ä  | ö  | ñ  |    | –  | È  | Ğ  | ˘  |
| 5                | à  | ò  | Ñ  | Á  | +  | ı  | Õ  | §  | 5                | û  | Ł  | ą  | Á  | +  | Ń  | ñ  | §  | 5                | à  | ò  | Ñ  | Á  | +  | ı  | ğ  | §  |
| 6                | â  | û  | ä  | Â  | ã  | ı  | μ  | ÷  | 6                | ć  | ĩ  | ž  | Â  | Ă  | ı  | š  | ÷  | 6                | ć  | û  | Ğ  | Â  | Š  | ı  | μ  | ÷  |
| 7                | ç  | ù  | œ  | À  | Ã  | ı  | þ  | ,  | 7                | ç  | š  | ž  | Ě  | ă  | ı  | š  | ,  | 7                | ç  | ù  | ğ  | À  | Š  | ı  | Ĥ  | ,  |
| 8                | ê  | ÿ  | ı  | ©  | Ł  | İ  | Ɔ  | °  | 8                | ı  | š  | Ě  | š  | Ł  | ě  | Ř  | °  | 8                | ê  | ı  | Ĥ  | š  | Ł  | ı  | h  | °  |
| 9                | ë  | Ö  | ®  | Ł  | Ł  | ı  | Ú  | ˝  | 9                | ë  | Ö  | ę  | Ł  | Ł  | ı  | Ú  | ˝  | 9                | ë  | Ö  | h  | Ł  | Ł  | ı  | Ú  | ˝  |
| A                | è  | Û  | ı  |    | Ł  | ı  | Û  | ·  | A                | ő  | Û  |    |    | Ł  | ı  | ı  | ·  | A                | è  | Û  |    |    | Ł  | ı  | Û  | ·  |
| B                | ï  | ø  | ½  | Ł  | Ł  | ■  | Û  | 1  | B                | ő  | ĩ  | ž  | Ł  | Ł  | ■  | Û  | ú  | B                | ï  | ğ  | ½  | Ł  | Ł  | ■  | Û  |    |
| C                | î  | £  | ¼  | Ł  | Ł  | ■  | ý  | 3  | C                | ı  | ĩ  | č  | Ł  | Ł  | ■  | ý  | ř  | C                | ı  | £  | ¼  | Ł  | Ł  | ■  | Û  | 3  |
| D                | ì  | Ø  | ı  | ¢  | =  |    | Ý  | 2  | D                | ž  | Ł  | š  | ž  | =  | ı  | ý  | ř  | D                | ı  | Ğ  | š  | ž  | =  |    | ű  | 2  |
| E                | Ä  | ×  | «  | ¥  | Ł  | ı  | –  | ■  | E                | Ä  | ×  | «  | ž  | Ł  | ı  | –  | ■  | E                | Ä  | ×  | «  | ž  | Ł  | ı  |    | ■  |
| F                | Å  | f  | »  | Ł  | ı  | ■  | –  | –  | F                | Ć  | č  | »  | Ł  | ı  | ■  | –  | –  | F                | Ć  | ĵ  | »  | Ł  | ı  | ■  |    | –  |

| Code Page<br>855 |    |    |    |    |    |    |    | Code Page<br>857 |    |    |    |    |    |    |    | Code Page<br>858 |    |    |    |    |    |    |    |   |   |   |
|------------------|----|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|------------------|----|----|----|----|----|----|----|---|---|---|
| 80               | 90 | A0 | B0 | C0 | D0 | E0 | F0 | 80               | 90 | A0 | B0 | C0 | D0 | E0 | F0 | 80               | 90 | A0 | B0 | C0 | D0 | E0 | F0 |   |   |   |
| 0                | ђ  | љ  | а  | ▯  | Л  | л  | Я  | -                | 0  | Ѓ  | Е  | а  | ▯  | Л  | О  | О                | -  | 0  | Ѓ  | Е  | а  | ▯  | Л  | О | - |   |
| 1                | Ђ  | Љ  | А  | ▯  | Л  | р  | ы  | 1                | Ў  | æ  | í  | ▯  | Л  | а  | β  | ±                | 1  | Ў  | æ  | í  | ▯  | Л  | а  | ± |   |   |
| 2                | ѓ  | њ  | б  | ▯  | Т  | м  | Р  | Ы                | 2  | é  | Æ  | ó  | ▯  | Т  | Ê  | Ô                |    | 2  | é  | Æ  | ó  | ▯  | Т  | Ê | Ô |   |
| 3                | ѓ  | њ  | Б  |    | Т  | М  | с  | З                | 3  | â  | ô  | ú  |    | Т  | È  | Ò                | ¾  | 3  | â  | ô  | ú  |    | Т  | È | Ò | ¾ |
| 4                | ё  | ђ  | ц  |    | -  | н  | С  | З                | 4  | ä  | ö  | ñ  |    | -  | È  | õ                | ¶  | 4  | ä  | ö  | ñ  |    | -  | È | õ | ¶ |
| 5                | Ё  | Ђ  | Ц  | х  | †  | Н  | Т  | Ш                | 5  | à  | ò  | Ñ  | Á  | †  |    | Õ                | §  | 5  | à  | ò  | Ñ  | Á  | †  | € | õ | § |
| 6                | е  | к  | д  | Х  | к  | о  | Т  | Ш                | 6  | â  | û  | Ğ  | Â  | ã  | Í  | μ                | ÷  | 6  | â  | û  | Ğ  | Â  | ã  | Í | μ | ÷ |
| 7                | Є  | К  | Д  | И  | К  | О  | У  | Э                | 7  | ç  | ù  | ğ  | À  | Ã  | İ  |                  |    | 7  | ç  | ù  | ğ  | À  | Ã  | İ | İ |   |
| 8                | ѕ  | у  | е  | И  | Љ  | п  | У  | Э                | 8  | ê  | ı  | ı  | ©  | £  | ı  | ×                | °  | 8  | ê  | ı  | ı  | ©  | £  | ı | İ | ° |
| 9                | Ѕ  | У  | Е  | Ї  | Љ  | Ј  | Ж  | Щ                | 9  | ë  | ö  | ®  | ¶  | Љ  | Ї  | “                | ”  | 9  | ë  | ö  | ®  | ¶  | Љ  | Ї | “ | ” |
| A                | і  | ц  | ф  |    | £  | Г  | Ж  | Щ                | A  | è  | ü  | ¬  |    | £  | Г  | “                | •  | A  | è  | ü  | ¬  |    | £  | Г | “ | • |
| B                | І  | Ц  | Ф  | ¶  | ¶  | ▯  | В  | Ч                | B  | ï  | ø  | ½  | ¶  | ¶  | ▯  | “                | 1  | B  | İ  | ø  | ½  | ¶  | ¶  | ▯ | “ | 1 |
| C                | İ  | Ю  | Г  | Ј  | ¶  | ▯  | В  | Ч                | C  | î  | £  | ¼  | Ј  | ¶  | ▯  | ı                | 3  | C  | İ  | £  | ¼  | Ј  | ¶  | ▯ | ı | 3 |
| D                | Ї  | Ю  | Г  | Й  | =  | П  | Ь  |                  | D  | ı  | ø  | ı  | φ  | =  | ı  | ÿ                | 2  | D  | İ  | ø  | ı  | φ  | =  | ı | ı | 2 |
| E                | Ј  | Ь  | «  | Й  | ¶  | Я  | Ь  | ▯                | E  | Ä  | Ş  | «  | ¥  | ¶  | ı  | -                | ▯  | E  | Ä  | Ş  | «  | ¥  | ¶  | ı | - | ▯ |
| F                | Ј  | Ь  | »  | Ј  | ¤  | ▯  | №  |                  | F  | Å  | Ş  | »  | Ј  | ¤  | ▯  | ’                |    | F  | Å  | Ş  | »  | Ј  | ¤  | ▯ | ’ |   |

| Code Page 860 |    |    |    |    |    |    |    |    | Code Page 861 |    |    |    |    |    |    |    |    | Code Page 862 |    |    |    |    |    |    |    |    |
|---------------|----|----|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|---------------|----|----|----|----|----|----|----|----|
|               | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |               | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |               | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |
| 0             | Ç  | É  | Á  | ▤  | Ł  | ⌒  | α  | ≡  | 0             | Ç  | É  | Á  | ▤  | Ł  | ⌒  | α  | ≡  | 0             | ⌘  | ı  | Á  | ▤  | Ł  | ⌒  | α  | ≡  |
| 1             | ü  | À  | Í  | ▥  | ⊥  | ⌒  | β  | ±  | 1             | ü  | æ  | Í  | ▥  | ⊥  | ⌒  | β  | ±  | 1             | ⌘  | ı  | Í  | ▥  | ⊥  | ⌒  | β  | ±  |
| 2             | é  | È  | Ó  | ▦  | ⌒  | ⌒  | Γ  | ≥  | 2             | é  | Æ  | Ó  | ▦  | ⌒  | ⌒  | Γ  | ≥  | 2             | λ  | ϣ  | Ó  | ▦  | ⌒  | ⌒  | Γ  | ≥  |
| 3             | â  | ô  | ú  |    | ⌒  | ⌒  | π  | ≤  | 3             | â  | ô  | ú  |    | ⌒  | ⌒  | π  | ≤  | 3             | ⌘  | ⌘  | ú  |    | ⌒  | ⌒  | π  | ≤  |
| 4             | ã  | õ  | ñ  | ⌒  | —  | ⌒  | Σ  | ∫  | 4             | ä  | ö  | Á  | ⌒  | —  | ⌒  | Σ  | ∫  | 4             | ⌘  | ⌘  | ñ  | ⌒  | —  | ⌒  | Σ  | ∫  |
| 5             | à  | ò  | Ñ  | ⌒  | ⌒  | ⌒  | σ  | ⌒  | 5             | à  | þ  | Í  | ⌒  | ⌒  | ⌒  | σ  | ⌒  | 5             | ı  | ⌘  | Ñ  | ⌒  | ⌒  | ⌒  | σ  | ⌒  |
| 6             | Á  | Ú  | ä  | ⌒  | ⌒  | ⌒  | μ  | ÷  | 6             | ä  | û  | Ó  | ⌒  | ⌒  | ⌒  | μ  | ÷  | 6             | ⌘  | ⌘  | ä  | ⌒  | ⌒  | ⌒  | μ  | ÷  |
| 7             | Ç  | ù  | º  | ⌒  | ⌒  | ⌒  | τ  | ≈  | 7             | Ç  | Ý  | Ú  | ⌒  | ⌒  | ⌒  | τ  | ≈  | 7             | ⌘  | ⌘  | º  | ⌒  | ⌒  | ⌒  | τ  | ≈  |
| 8             | ê  | î  | ¿  | ⌒  | ⌒  | ⌒  | Φ  | °  | 8             | ê  | ý  | ¿  | ⌒  | ⌒  | ⌒  | Φ  | °  | 8             | ⌘  | ⌘  | ¿  | ⌒  | ⌒  | ⌒  | Φ  | °  |
| 9             | Ê  | Ë  | Ò  | ⌒  | ⌒  | ⌒  | Θ  | •  | 9             | ë  | ö  | ⌒  | ⌒  | ⌒  | ⌒  | Θ  | •  | 9             | ı  | ⌘  | ⌒  | ⌒  | ⌒  | ⌒  | Θ  | •  |
| A             | è  | Ù  | ⌒  | ⌒  | ⌒  | ⌒  | Ω  | •  | A             | è  | Û  | ⌒  | ⌒  | ⌒  | ⌒  | Ω  | •  | A             | ⌘  | ⌘  | ⌒  | ⌒  | ⌒  | ⌒  | Ω  | •  |
| B             | í  | φ  | ½  | ⌒  | ⌒  | ▀  | δ  | √  | B             | Đ  | ø  | ½  | ⌒  | ⌒  | ▀  | δ  | √  | B             | ⌘  | φ  | ½  | ⌒  | ⌒  | ▀  | δ  | √  |
| C             | Ô  | £  | ¼  | ⌒  | ⌒  | ▀  | ∞  | n  | C             | Ö  | £  | ¼  | ⌒  | ⌒  | ▀  | ∞  | n  | C             | ⌘  | £  | ¼  | ⌒  | ⌒  | ▀  | ∞  | n  |
| D             | ì  | Û  | ı  | ⌒  | ⌒  | ▀  | ø  | ²  | D             | Þ  | Ø  | ı  | ⌒  | ⌒  | ▀  | ø  | ²  | D             | ⌘  | ¥  | ı  | ⌒  | ⌒  | ▀  | ø  | ²  |
| E             | Ã  | ⌘  | «  | ⌒  | ⌒  | ▀  | €  | ■  | E             | Ä  | ⌘  | «  | ⌒  | ⌒  | ▀  | €  | ■  | E             | ⌘  | ⌘  | «  | ⌒  | ⌒  | ▀  | €  | ■  |
| F             | Â  | Ó  | »  | ⌒  | ⌒  | ▀  | ∩  |    | F             | Å  | ƒ  | »  | ⌒  | ⌒  | ▀  | ∩  |    | F             | ı  | ƒ  | »  | ⌒  | ⌒  | ▀  | ∩  |    |

| Code Page<br>863 |    |    |    |    |    |    |    | Code Page<br>864 |   |    |    |    |    |    |    | Code Page<br>865 |    |   |    |    |    |    |    |    |    |    |
|------------------|----|----|----|----|----|----|----|------------------|---|----|----|----|----|----|----|------------------|----|---|----|----|----|----|----|----|----|----|
|                  | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0               |   | 80 | 90 | A0 | B0 | C0 | D0 | E0               | F0 |   | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |
| 0                | Ç  | É  |    | ▒  | ␣  | ␣  | α  | ≡                | 0 | °  | β  |    | ◆  | Φ  | ذ  | —                | ␣  | 0 | Ç  | É  | á  | ▒  | ␣  | ␣  | α  | ≡  |
| 1                | ü  | È  | '  | ▒  | ␣  | ␣  | β  | ±                | 1 | •  | ∞  | —  | ∖  | ء  | ر  | ف                | ء  | 1 | ü  | æ  | í  | ▒  | ␣  | ␣  | β  | ±  |
| 2                | é  | Ê  | ó  | ▒  | ␣  | ␣  | Γ  | ≥                | 2 | •  | ø  | ␣  | ␣  | ␣  | ز  | ق                | ن  | 2 | é  | Æ  | ó  | ▒  | ␣  | ␣  | Γ  | ≥  |
| 3                | â  | ô  | ú  |    | ␣  | ␣  | π  | ≤                | 3 | √  | ±  | £  | ␣  | ␣  | س  | ك                | ه  | 3 | â  | ô  | ú  |    | ␣  | ␣  | π  | ≤  |
| 4                | Â  | Ê  | ”  |    | —  | ␣  | Σ  | ∫                | 4 | ▒  | ½  | ¤  | £  | و  | ش  | ل                | ␣  | 4 | ä  | ö  | ñ  |    | —  | ␣  | Σ  | ∫  |
| 5                | à  | Ï  | ,  | ␣  | ␣  | ␣  | σ  | ∫                | 5 | —  | ¼  | £  | ␣  | ␣  | ع  | ص                | م  | 5 | à  | ò  | Ñ  | ␣  | ␣  | ␣  | σ  | ∫  |
| 6                | ¶  | û  | ³  | ␣  | ␣  | ␣  | μ  | ÷                | 6 |    | ≈  |    | ␣  | ␣  | ض  | ن                | ي  | 6 | ã  | û  | ³  | ␣  | ␣  | ␣  | μ  | ÷  |
| 7                | ç  | ù  | ˆ  | ␣  | ␣  | ␣  | τ  | ≈                | 7 | +  | «  |    | √  | ␣  | ط  | ه                | غ  | 7 | ç  | ù  | ˆ  | ␣  | ␣  | ␣  | τ  | ≈  |
| 8                | ê  | œ  | î  | ␣  | ␣  | ␣  | Φ  | °                | 8 | ␣  | »  | ␣  | ∧  | ␣  | ظ  | و                | ق  | 8 | ê  | ÿ  | ¿  | ␣  | ␣  | ␣  | Φ  | °  |
| 9                | ë  | ô  | ␣  | ␣  | ␣  | ␣  | θ  | •                | 9 | ␣  | لا | ␣  | ␣  | ة  | ␣  | ي                | لا | 9 | ë  | ö  | ␣  | ␣  | ␣  | ␣  | θ  | •  |
| A                | è  | Û  | ␣  | ␣  | ␣  | ␣  | Ω  | •                | A | ␣  | لا | ␣  | ␣  | ␣  | ␣  | ␣                | لا | A | è  | Û  | ␣  | ␣  | ␣  | ␣  | Ω  | •  |
| B                | ï  | Φ  | ½  | ␣  | ␣  | ␣  | δ  | √                | B | ␣  |    | ␣  | ␣  | ␣  | ␣  | ␣                | ␣  | B | ï  | ø  | ½  | ␣  | ␣  | ␣  | δ  | √  |
| C                | î  | £  | ¼  | ␣  | ␣  | ␣  | ∞  | n                | C | ␣  |    | ␣  | ␣  | ␣  | ␣  | ␣                | ␣  | C | î  | £  | ¼  | ␣  | ␣  | ␣  | ∞  | n  |
| D                | =  | Û  | ¾  | ␣  | =  | ␣  | ø  | ²                | D | ␣  | لا | ␣  | ␣  | ␣  | ␣  | ␣                | ␣  | D | ì  | ø  | ¿  | ␣  | =  | ␣  | ø  | ²  |
| E                | À  | Û  | «  | ␣  | ␣  | ␣  | €  | ■                | E | ␣  | لا | ␣  | ␣  | ␣  | ␣  | ␣                | ␣  | E | Ä  | ␣  | «  | ␣  | ␣  | ␣  | €  | ■  |
| F                | §  | f  | »  | ␣  | ␣  | ␣  | ∩  |                  | F | ␣  | ␣  | ␣  | ␣  | ␣  | ␣  | ␣                | ␣  | F | Å  | f  | ␣  | ␣  | ␣  | ␣  | ∩  |    |

| Code Page<br>866 |    |    |    |    |    |    |    |   | Code Page<br>869 |    |    |    |    |    |    |    |   | Abicom |    |    |    |    |    |    |    |  |
|------------------|----|----|----|----|----|----|----|---|------------------|----|----|----|----|----|----|----|---|--------|----|----|----|----|----|----|----|--|
| 80               | 90 | A0 | B0 | C0 | D0 | E0 | F0 |   | 80               | 90 | A0 | B0 | C0 | D0 | E0 | F0 |   | 80     | 90 | A0 | B0 | C0 | D0 | E0 | F0 |  |
| 0                | А  | Р  | а  | ␣  | ␣  | р  | ё  | 0 | İ                | ı  | ␣  | ␣  | Т  | ξ  | —  |    | 0 |        |    | ò  | ı  | ò  |    |    |    |  |
| 1                | Б  | С  | б  | ␣  | ␣  | с  | ё  | 1 | Ï                | î  | ␣  | ␣  | У  | η  | ±  |    | 1 |        |    | À  | Ó  | à  | ó  |    |    |  |
| 2                | В  | Т  | в  | ␣  | ␣  | т  | ё  | 2 | Ï                | ó  | ␣  | ␣  | Ф  | θ  | υ  |    | 2 |        |    | Á  | Ô  | á  | ô  |    |    |  |
| 3                | Г  | У  | г  |    |    | у  | ё  | 3 |                  | ú  |    |    | Х  | ι  | φ  |    | 3 |        |    | Â  | Õ  | â  | õ  |    |    |  |
| 4                | Д  | Ф  | д  |    | —  | ф  | й  | 4 |                  | А  |    | —  | Ψ  | κ  | χ  |    | 4 |        |    | Ã  | Ö  | ã  | ö  |    |    |  |
| 5                | Е  | Х  | е  | ␣  | ␣  | х  | й  | 5 | Ÿ                | В  | К  | ␣  | Ω  | λ  | §  |    | 5 |        |    | Ä  | Æ  | ä  | æ  |    |    |  |
| 6                | Ж  | Ц  | ж  | ␣  | ␣  | ц  | у  | 6 | À                | ÿ  | Г  | Λ  | Π  | α  | μ  | ψ  | 6 |        |    | Ç  | Ù  | ç  | ù  |    |    |  |
| 7                | З  | Ч  | з  | ␣  | ␣  | ч  | у  | 7 | ©                | Δ  | М  | Р  | β  | ν  | ˘  |    | 7 |        |    | È  | Ú  | è  | ú  |    |    |  |
| 8                | И  | Ш  | и  | ␣  | ␣  | ш  | °  | 8 | •                | Ω  | Ε  | Ν  | ␣  | γ  | ξ  | °  | 8 |        |    | É  | Û  | é  | û  |    |    |  |
| 9                | Й  | Щ  | й  | ␣  | ␣  | щ  | •  | 9 | ¬                | ²  | Ζ  | ␣  | ␣  | ␣  | ␣  | ˘  | 9 |        |    | Ê  | Ü  | ê  | ü  |    |    |  |
| A                | К  | Ъ  | к  | ␣  | ␣  | ъ  | •  | A | !                | ³  | Η  | ␣  | ␣  | ␣  | ␣  | ω  | A |        |    | Ë  | Ÿ  | ë  | ÿ  |    |    |  |
| B                | Л  | Ы  | л  | ␣  | ␣  | ы  | √  | B | '                | α  | ½  | ␣  | ␣  | ␣  | ␣  | ü  | B |        |    | Ì  | ˘  | ì  | β  |    |    |  |
| C                | М  | Ь  | м  | ␣  | ␣  | ь  | №  | C | '                | £  | Θ  | ␣  | ␣  | ␣  | ␣  | û  | C |        |    | Í  | £  | í  | α  |    |    |  |
| D                | Н  | Э  | н  | ␣  | =  | э  | α  | D | Ε                | έ  | Ι  | Ε  | =  | δ  | ς  | ω  | D |        |    | Î  | •  | î  | ο  |    |    |  |
| E                | О  | Ю  | о  | ␣  | ␣  | ю  | ■  | E | —                | ή  | «  | Ο  | ␣  | €  | τ  | ■  | E |        |    | Ï  | §  | ï  | ι  |    |    |  |
| F                | П  | Я  | п  | ␣  | ␣  | я  |    | F | Η                | ί  | »  | Γ  | Σ  | ␣  | '  |    | F |        |    | Ñ  | °  | ñ  | ±  |    |    |  |

| Brazilian ASCII |    |    |    |    |    |    |    | Mazowian |   |    |    |    |    |    |    | Code MJK |    |   |    |    |    |    |    |    |    |    |
|-----------------|----|----|----|----|----|----|----|----------|---|----|----|----|----|----|----|----------|----|---|----|----|----|----|----|----|----|----|
|                 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0       |   | 80 | 90 | A0 | B0 | C0 | D0 | E0       | F0 |   | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |
| 0               |    |    |    | °  | À  | Ð  | à  | ð        | 0 | Ç  | Ę  | Ż  | ▯  | Ł  | ⌚  | α        | ≡  | 0 | Č  | É  | Á  | ▯  | Ł  | ⌚  | α  | ≡  |
| 1               |    |    | ı  | ±  | Á  | Ñ  | á  | ñ        | 1 | ü  | ę  | Ż  | ▯  | ⊥  | ⌚  | β        | ±  | 1 | ü  | Ž  | Í  | ▯  | ⊥  | ⌚  | β  | ±  |
| 2               |    |    | ϕ  | ²  | Â  | Ò  | â  | ò        | 2 | é  | ł  | Ó  | ▯  | ⌚  | ⌚  | Γ        | ≥  | 2 | é  | Ž  | Ó  | ▯  | ⌚  | ⌚  | Γ  | ≥  |
| 3               |    |    | £  | ³  | Ã  | Ó  | ã  | ó        | 3 | â  | ô  | Ó  |    | ⌚  | ⌚  | π        | ≤  | 3 | đ  | ô  | Ú  |    | ⌚  | ⌚  | π  | ≤  |
| 4               |    |    | ¤  | ´  | Ä  | Ô  | ä  | ô        | 4 | ä  | ö  | ń  | ⌚  | —  | ⌚  | Σ        | ∫  | 4 | ä  | ö  | ň  | ⌚  | —  | ⌚  | Σ  | ∫  |
| 5               |    |    | ¥  | μ  | Å  | Ö  | å  | ö        | 5 | à  | Ć  | Ń  | ⌚  | ⌚  | ⌚  | σ        | Ј  | 5 | Đ  | Ó  | Ń  | ⌚  | ⌚  | ⌚  | σ  | Ј  |
| 6               |    |    |    | ¶  | Æ  | Ö  | æ  | ö        | 6 | ą  | û  | Ż  | ⌚  | ⌚  | ⌚  | μ        | ÷  | 6 | Ť  | û  | Ů  | ⌚  | ⌚  | ⌚  | μ  | ÷  |
| 7               |    |    | §  | •  | Ç  | Œ  | ç  | œ        | 7 | ç  | ù  | Ż  | ⌚  | ⌚  | ⌚  | τ        | ≈  | 7 | č  | Ú  | Ô  | ⌚  | ⌚  | ⌚  | τ  | ≈  |
| 8               |    |    | ¨  | ˆ  | È  | Ø  | è  | ø        | 8 | ê  | Ś  | Ś  | ⌚  | ⌚  | ⌚  | Φ        | °  | 8 | ě  | Ý  | Š  | ⌚  | ⌚  | ⌚  | Φ  | °  |
| 9               |    |    | ©  | ¹  | É  | Ù  | é  | ù        | 9 | ë  | Ö  | Ŕ  | ⌚  | ⌚  | ⌚  | Θ        | •  | 9 | Ě  | Ö  | Ř  | ⌚  | ⌚  | ⌚  | Θ  | •  |
| A               |    |    | ª  | º  | Ê  | Ú  | ê  | ú        | A | è  | Û  | Ŕ  | ⌚  | ⌚  | ⌚  | Ω        | •  | A | Ľ  | Û  | Ŕ  | ⌚  | ⌚  | ⌚  | Ω  | •  |
| B               |    |    | «  | »  | Ë  | Û  | ë  | û        | B | ï  | ž  | ½  | ⌚  | ⌚  | ▯  | δ        | √  | B | í  | Š  | Ř  | ⌚  | ⌚  | ▯  | δ  | √  |
| C               |    |    | ¬  | ¼  | Ì  | Ü  | ì  | ü        | C | î  | Ł  | ¼  | ⌚  | ⌚  | ▯  | ∞        | ⁿ  | C | Ĭ  | Ł  | ¼  | ⌚  | ⌚  | ▯  | ∞  | ⁿ  |
| D               |    |    | —  | ½  | Í  | Ý  | í  | ý        | D | ć  | ¥  | ı  | ⌚  | =  | ▯  | ø        | ²  | D | Ĭ  | Ý  | Š  | ⌚  | =  | ▯  | ø  | ²  |
| E               |    |    | ®  | ¾  | Î  | Þ  | î  | þ        | E | Ä  | Ś  | «  | ⌚  | ⌚  | ▯  | €        | ■  | E | Ä  | Ř  | «  | ⌚  | ⌚  | ▯  | €  | ■  |
| F               |    |    | —  | ¿  | Ï  | ß  | ï  | ÿ        | F | Ą  | ƒ  | »  | ⌚  | ⌚  | ▯  | ∩        |    | F | Á  | ť  | »  | ⌚  | ⌚  | ▯  | ∩  |    |



| Bulgarian |    |    |    |    |    |    |    | ISO 8859-7 |    |    |    |    |    |    |    | ISO Latin 1T |    |    |    |    |    |    |    |   |
|-----------|----|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|---|
| 80        | 90 | A0 | B0 | C0 | D0 | E0 | F0 | 80         | 90 | A0 | B0 | C0 | D0 | E0 | F0 | 80           | 90 | A0 | B0 | C0 | D0 | E0 | F0 |   |
| 0         | А  | Р  | а  | р  | Љ  | џ  | α  | 0          |    |    | °  | Ѓ  | П  | Ў  | π  | 0            |    |    | °  | À  | Ğ  | à  | ğ  |   |
| 1         | Б  | С  | б  | с  | Ѡ  | ѡ  | β  | 1          |    |    | ‘  | ±  | А  | Р  | α  | 1            |    |    | ı  | ±  | Á  | Ñ  | á  | ñ |
| 2         | В  | Т  | в  | т  | Ѣ  | ѣ  | Γ  | 2          |    |    | ’  | ²  | В  |    | β  | 2            |    |    | ϕ  | ²  | Â  | Ò  | â  | ò |
| 3         | Г  | У  | г  | у  | Ѥ  | ѥ  | π  | 3          |    | £  | ³  | Г  | Σ  | γ  | σ  | 3            |    |    | £  | ³  | Ã  | Ó  | ã  | ó |
| 4         | Д  | Ф  | д  | ф  | Ѧ  | ѧ  | Σ  | 4          |    |    | ˆ  | Δ  | Τ  | δ  | τ  | 4            |    |    | κ  | ˆ  | Ä  | Ô  | ä  | ô |
| 5         | Е  | Х  | е  | х  | Ѩ  | ѩ  | σ  | 5          |    |    | ˘  | Ε  | Υ  | ε  | υ  | 5            |    |    | ¥  | μ  | Å  | Ö  | å  | ö |
| 6         | Ж  | Ц  | ж  | ц  | Ѭ  | ѭ  | μ  | 6          |    |    | ı  | À  | Z  | Φ  | ξ  | 6            |    |    | ı  | ı  | Æ  | Ö  | æ  | ö |
| 7         | З  | Ч  | з  | ч  | Ѯ  | ѯ  | τ  | 7          |    | §  | •  | Н  | Χ  | η  | χ  | 7            |    |    | §  | •  | Ç  | ×  | ç  | ÷ |
| 8         | И  | Ш  | и  | ш  | Ѱ  | ѱ  | φ  | 8          |    |    | ˙  | Е  | Θ  | Ψ  | ψ  | 8            |    |    | ˙  | ˙  | È  | Ø  | è  | ø |
| 9         | Й  | Щ  | й  | щ  | Ѳ  | ѳ  | θ  | 9          |    | ©  | ®  | Н  | Ι  | Ω  | ι  | 9            |    |    | ©  | ®  | É  | Ù  | é  | ù |
| A         | К  | Ъ  | к  | ъ  | Ѵ  | ѵ  | Ω  | A          |    |    |    | Ї  | К  | İ  | ı  | A            |    |    |   |   | Ê  | Ú  | ê  | ú |
| B         | Л  | Ы  | л  | ы  | Ѷ  | ѷ  | δ  | B          |    |    | «  | »  | Λ  | Υ  | λ  | B            |    |    | «  | »  | Ë  | Û  | ë  | û |
| C         | М  | Ь  | м  | ь  | Ѹ  | ѹ  | ∞  | C          |    |    | ¬  |   |   |   |   | C            |    |    | ¬  | ¼  | İ  | Ü  | ı  | ü |
| D         | Н  | Э  | н  | э  | Ѻ  | ѻ  | ²  | D          |    |    | —  | ½  | N  | É  | ν  | D            |    |    | —  | ½  | í  | İ  | ı  | ı |
| E         | О  | Ю  | о  | ю  | Ѽ  | ѽ  | €  | E          |    |    |    | Ў  | Е  | ή  | ξ  | E            |    |    | ®  | ¾  | î  | Ş  | î  | ş |
| F         | П  | Я  | п  | я  | Ѿ  | ѿ  | ∩  | F          |    |    | —  | Ω  | Ο  | ί  | ο  | F            |    |    | —  | ¿  | ÿ  | ß  | ÿ  | ÿ |

| Code Page 437 |    |    |    |    |    |    |    |    | D-Hebrew |    |    |    |    |    |    |    |    | New Hebrew |    |    |    |    |    |    |    |    |
|---------------|----|----|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|------------|----|----|----|----|----|----|----|----|
|               | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |          | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |            | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |
| 0             | Ç  | É  | á  | ▤  | Ł  | ⌚  | α  | ≡  | 0        | Ç  | É  | á  | ▤  | Ł  | ⌚  | ⌕  | ⌕  | 0          | ⌕  | ⌕  | á  | ▤  | Ł  | ⌚  | α  | ≡  |
| 1             | ü  | í  | í  | ▥  | ⌚  | ⌚  | β  | ±  | 1        | ü  | æ  | í  | ▥  | ⌚  | ⌚  | ⌕  | ⌕  | 1          | ⌕  | ⌕  | í  | ▥  | ⌚  | ⌚  | β  | ±  |
| 2             | é  | ó  | ó  | ▧  | ⌚  | ⌚  | Γ  | ≥  | 2        | é  | Æ  | ó  | ▧  | ⌚  | ⌚  | λ  | γ  | 2          | λ  | γ  | ó  | ▧  | ⌚  | ⌚  | Γ  | ≥  |
| 3             | â  | ô  | ú  |    |    | ⌚  | π  | ≤  | 3        | â  | ô  | ú  |    |    | ⌚  | ⌕  | ⌕  | 3          | ⌕  | ⌕  | ú  |    |    | ⌚  | π  | ≤  |
| 4             | ä  | ö  | ñ  |    | —  | ⌚  | Σ  | ∫  | 4        | ä  | ö  | ñ  |    | —  | ⌚  | ⌕  | ⌕  | 4          | ⌕  | ⌕  | ñ  |    | —  | ⌚  | Σ  | ∫  |
| 5             | à  | ò  | Ñ  | ≡  | +  | ⌚  | σ  | ∫  | 5        | à  | ò  | Ñ  | ≡  | +  | ⌚  | ⌕  | ⌕  | 5          | ⌕  | ⌕  | Ñ  | ≡  | +  | ⌚  | σ  | ∫  |
| 6             | À  | û  | ä  | ≡  | ⌚  | ⌚  | μ  | ÷  | 6        | À  | û  | ä  | ≡  | ⌚  | ⌚  | ⌕  | ⌕  | 6          | ⌕  | ⌕  | ä  | ≡  | ⌚  | ⌚  | μ  | ÷  |
| 7             | ç  | ù  | º  | ⌚  | ⌚  | ⌚  | τ  | ≈  | 7        | ç  | ù  | º  | ⌚  | ⌚  | ⌚  | ⌕  | ⌕  | 7          | ⌕  | ⌕  | º  | ⌚  | ⌚  | ⌚  | τ  | ≈  |
| 8             | ê  | Á  | ¿  | ⌚  | ⌚  | ⌚  | Φ  | °  | 8        | ê  | ÿ  | ¿  | ⌚  | ⌚  | ⌚  | ⌕  | ⌕  | 8          | ⌕  | ⌕  | ¿  | ⌚  | ⌚  | ⌚  | Φ  | °  |
| 9             | ë  | Ö  | ¡  | ⌚  | ⌚  | ⌚  | Θ  | •  | 9        | ë  | Ö  | ¡  | ⌚  | ⌚  | ⌚  | ⌕  | ⌕  | 9          | ⌕  | ⌕  | ¡  | ⌚  | ⌚  | ⌚  | Θ  | •  |
| A             | è  | Û  | Ł  | ⌚  | ⌚  | ⌚  | Ω  | •  | A        | è  | Û  | Ł  | ⌚  | ⌚  | ⌚  | ⌕  | ⌕  | A          | ⌕  | ⌕  | Ł  | ⌚  | ⌚  | ⌚  | Ω  | •  |
| B             | ï  | Ò  | ½  | ⌚  | ⌚  | ▀  | δ  | √  | B        | ï  | Ç  | ½  | ⌚  | ⌚  | ▀  | ⌕  | √  | B          | ⌕  | Ç  | ½  | ⌚  | ⌚  | ▀  | δ  | √  |
| C             | î  | £  | ¼  | ⌚  | ⌚  | ▀  | ∞  | n  | C        | î  | £  | ¼  | ⌚  | ⌚  | ▀  | ⌕  | n  | C          | ⌕  | £  | ¼  | ⌚  | ⌚  | ▀  | ∞  | n  |
| D             | ì  | Ú  | ;  | ⌚  | =  | ▀  | ø  | 2  | D        | ì  | ¥  | ;  | ⌚  | =  | ▀  | ⌕  | 2  | D          | ⌕  | ¥  | ;  | ⌚  | =  | ▀  | ø  | 2  |
| E             | Ä  | Rs | «  | ⌚  | ⌚  | ▀  | €  | ■  | E        | Ä  | Rs | «  | ⌚  | ⌚  | ▀  | ⌕  | ■  | E          | ⌕  | Rs | «  | ⌚  | ⌚  | ▀  | €  | ■  |
| F             | È  | Ï  | »  | ⌚  | ±  | ▀  | ∩  |    | F        | À  | ƒ  | »  | ⌚  | ±  | ▀  | ⌕  |    | F          | ⌕  | ƒ  | »  | ⌚  | ±  | ▀  | ∩  |    |

| ISO 8859-15 |    |    |    |    |    |    |    |    |
|-------------|----|----|----|----|----|----|----|----|
|             | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |
| 0           |    |    |    | •  | À  | Ù  | à  | ó  |
| 1           |    |    | ı  | ±  | Á  | Ñ  | á  | ñ  |
| 2           |    |    | ¢  | ²  | Â  | Ò  | â  | ô  |
| 3           |    |    | £  | ³  | Ã  | Ó  | ã  | ó  |
| 4           |    |    | €  | ¼  | Ä  | Ô  | ä  | ö  |
| 5           |    |    | ¥  | µ  | Å  | Õ  | å  | õ  |
| 6           |    |    | Š  | ¶  | Æ  | Ö  | æ  | ö  |
| 7           |    |    | §  | •  | Ç  | ×  | ç  | ÷  |
| 8           |    |    | €  | ž  | È  | Ø  | é  | ø  |
| 9           |    |    | ©  | ı  | É  | Ú  | ê  | ù  |
| A           |    |    | ª  | º  | Ê  | Û  | ë  | ú  |
| B           |    |    | «  | »  | Ë  | Ü  | ë  | û  |
| C           |    |    | ¬  | ¼  | Ì  | Ý  | ì  | ü  |
| D           |    |    | -  | ®  | Í  | Ÿ  | í  | ÿ  |
| E           |    |    | ®  | Ÿ  | Î  | Þ  | î  | þ  |
| F           |    |    | -  | ı  | 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  | Đ   | ”  | p  | =  |
| 04 |     | DC4 | \$ | 4  | D  | T  | d  | t   |     | DC4 | ñ  | ¥  | f   | ‘  | 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  |     | º  |    | 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  | Đ   | ”  | p  | =  |
| 04 | ®   | DC4 | \$ | 4  | D  | T  | d  | t   | ä  | ö  | ñ  | ¥  | f   | ‘  | S  | (  |
| 05 | ß   | §   | %  | 5  | E  | U  | e  | u   | à  | ò  | Ñ  | μ  | Ý   | ’  | s  | )  |
| 06 | ™   |     | &  | 6  | F  | V  | f  | v   | â  | 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  | x  |
| 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  | ø  |    | ª  | À   | ¶  | d  | v  |
| 0C | FF  |     | ,  | <  | L  | \  | l  |     | î  | £  | º  | º  | Ã   | _  | 8  | n  |
| 0D | CR  |     | -  | =  | M  | ]  | m  | }   | ì  | ¥  | º  |    | 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 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | France |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|     | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |        | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |
| 0   |    |    |    | 0  | @  | P  | `  | p  | Ç  | É  | á  | ⌘  | ⌘  | α  | ≡  |    | 0      |    |    |    | à  | P  | `  | p  | Ç  | É  | á  | ⌘  | ⌘  | α  | ≡  |    |    |
| 1   |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | ⌘  | β  | ±  |    | 1      |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | β  | ±  |    |    |
| 2   |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | ⌘  | Γ  | ≥  |    | 2      |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | Γ  | ≥  |    |    |
| 3   | ♥  | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | ⌘  | π  | ≤  |    | 3      | ♥  | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | ⌘  | π  | ≤  |    |
| 4   | ♦  | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | —  | ⌘  | Σ  | ∫  |    | 4      | ♦  | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | —  | ⌘  | Σ  | ∫  |    |
| 5   | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | ⌘  | ⌘  | σ  | Ј  |    | 5      | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | ⌘  | ⌘  | σ  | Ј  |    |
| 6   | ♠  | &  | 6  | F  | V  | f  | v  | â  | û  | æ  | ⌘  | ⌘  | ⌘  | μ  | ÷  |    | 6      | ♠  | &  | 6  | F  | V  | f  | v  | â  | û  | æ  | ⌘  | ⌘  | ⌘  | μ  | ÷  |    |
| 7   |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | ⌘  | ⌘  | ⌘  | τ  | ≈  |    | 7      |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | ⌘  | ⌘  | ⌘  | τ  | ≈  |    |
| 8   |    | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | ⌘  | ⌘  | ⌘  | Φ  | °  |    | 8      |    | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | ⌘  | ⌘  | ⌘  | Φ  | °  |    |
| 9   |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ⌘  | ⌘  | ⌘  | ⌘  | Θ  | •  |    | 9      |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ⌘  | ⌘  | ⌘  | ⌘  | Θ  | •  |    |
| A   |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | ⌘  | ⌘  | ⌘  | ⌘  | Ω  | •  |    | A      |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | ⌘  | ⌘  | ⌘  | ⌘  | Ω  | •  |    |
| B   |    | +  | ;  | K  | [  | k  | {  | ï  | φ  | ½  | ⌘  | ⌘  | ⌘  | δ  | √  |    | B      |    | +  | ;  | K  | °  | k  | é  | ï  | φ  | ½  | ⌘  | ⌘  | ⌘  | δ  | √  |    |
| C   |    | ,  | <  | L  | \  | l  |    | î  | £  | ¼  | ⌘  | ⌘  | ⌘  | ∞  | n  |    | C      |    | ,  | <  | L  | ç  | l  | ù  | î  | £  | ¼  | ⌘  | ⌘  | ⌘  | ∞  | n  |    |
| D   |    | —  | =  | M  | ]  | m  | }  | ì  | ¥  | ;  | ⌘  | ⌘  | ⌘  | ∅  | ²  |    | D      |    | —  | =  | M  | §  | m  | è  | ì  | ¥  | ;  | ⌘  | ⌘  | ⌘  | ∅  | ²  |    |
| E   |    | .  | >  | N  | ^  | n  | ~  | Ä  | ℞  | «  | ⌘  | ⌘  | ⌘  | €  | ■  |    | E      |    | .  | >  | N  | ^  | n  | ˆ  | Ä  | ℞  | «  | ⌘  | ⌘  | ⌘  | €  | ■  |    |
| F   |    | /  | ?  | O  | _  | o  |    | Å  | f  | »  | ⌘  | ⌘  | ⌘  | ∩  |    |    | F      |    | /  | ?  | O  | _  | o  |    | Å  | f  | »  | ⌘  | ⌘  | ⌘  | ∩  |    |    |

| Germany |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | United Kingdom |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
|         | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |                | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |   |
| 0       |    |    |    | 0  | §  | P  | `  | p  | Ç  | É  | Á  | ⌘  | ⌘  | α  | ≡  |    | 0              |    |    |    | 0  | @  | P  | `  | p  | Ç  | É  | Á  | ⌘  | ⌘  | α  | ≡  |    |   |
| 1       |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | ⊥  | ⌞  | β  | ±  | 1              |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | ⊥  | ⌞  | β  | ±  |   |
| 2       |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | ⌞  | ⌞  | Γ  | ≥  | 2              |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | ⌞  | ⌞  | Γ  | ≥  |   |
| 3       | ♥  | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | ⌘  | π  | ≤  |    | 3              | ♥  | £  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | ⌘  | π  | ≤  |    |   |
| 4       | ♦  | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | —  | ⌘  | Σ  | ∫  |    | 4              | ♦  | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | —  | ⌘  | Σ  | ∫  |    |   |
| 5       | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | ≡  | +  | ƒ  | σ  | ∫  | 5              | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | ≡  | +  | ƒ  | σ  | ∫  |   |
| 6       | ♠  | &  | 6  | F  | V  | f  | v  | â  | û  | ä  | ≡  | ≡  | ⌘  | μ  | ÷  |    | 6              | ♠  | &  | 6  | F  | V  | f  | v  | â  | û  | ä  | ≡  | ≡  | ⌘  | μ  | ÷  |    |   |
| 7       |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | ≡  | ≡  | ⌘  | τ  | ≈  |    | 7              |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | ≡  | ≡  | ⌘  | ⌘  | τ  | ≈  |   |
| 8       |    | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | ≡  | ≡  | ⌘  | Φ  | °  |    | 8              |    | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | ≡  | ≡  | ⌘  | ⌘  | Φ  | °  |   |
| 9       |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ¬  | ≡  | ≡  | ⌘  | ∫  | θ  | •  | 9              |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ¬  | ≡  | ≡  | ⌘  | ⌘  | ∫  | θ  | • |
| A       |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | ¬  | ≡  | ≡  | ⌘  | Ω  | •  |    | A              |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | ¬  | ≡  | ≡  | ⌘  | ⌘  | Ω  | •  |   |
| B       |    | +  | ;  | K  | Ä  | k  | ä  | ï  | ¢  | ½  | ≡  | ≡  | ⌘  | δ  | √  |    | B              |    | +  | ;  | K  | [  | k  | {  | ï  | ¢  | ½  | ≡  | ≡  | ⌘  | ⌘  | δ  | √  |   |
| C       |    | ,  | <  | L  | Ö  | l  | ö  | î  | £  | ¼  | ≡  | ≡  | ⌘  | ∞  | n  |    | C              |    | ,  | <  | L  | \  | l  |    | î  | £  | ¼  | ≡  | ≡  | ⌘  | ⌘  | ∞  | n  |   |
| D       |    | —  | =  | M  | Ü  | m  | ü  | ì  | ¥  | ;  | ≡  | ≡  | ⌘  | ∅  | ²  |    | D              |    | —  | =  | M  | ]  | m  | }  | ì  | ¥  | ;  | ≡  | ≡  | ⌘  | ⌘  | ∅  | ²  |   |
| E       |    | .  | >  | N  | ^  | n  | ß  | Ä  | £  | «  | ≡  | ≡  | ⌘  | €  | ■  |    | E              |    | .  | >  | N  | ^  | n  | ~  | Ä  | £  | «  | ≡  | ≡  | ⌘  | ⌘  | €  | ■  |   |
| F       |    | /  | ?  | O  | _  | o  | Å  | f  | »  | ∫  | ≡  | ≡  | ⌘  | ∅  |    | F  |                | /  | ?  | O  | _  | o  | Å  | f  | »  | ∫  | ≡  | ≡  | ⌘  | ⌘  | ∅  |    |    |   |

| Denmark 1 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | Denmark 2 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|           | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |           | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |
| 0         |    |    |    | 0  | @  | P  | `  | p  | Ç  | É  | Á  | ⌘  | ⌘  | α  | ≡  |    | 0         |    |    |    | 0  | É  | P  | é  | p  | Ç  | É  | Á  | ⌘  | ⌘  | α  | ≡  |    |
| 1         |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | ⌘  | β  | ±  |    | 1         |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | ⌘  | β  | ±  |    |
| 2         |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | ⌘  | Γ  | ≥  |    | 2         |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | ⌘  | Γ  | ≥  |    |
| 3         | ♥  | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | ⌘  | π  | ≤  |    | 3         | ♥  | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | ⌘  | π  | ≤  |    |
| 4         | ♦  | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | —  | £  | Σ  | ∫  |    | 4         | ♦  | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | —  | £  | Σ  | ∫  |    |
| 5         | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | ≡  | †  | ƒ  | σ  | ∫  | 5         | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | ≡  | †  | ƒ  | σ  | ∫  |
| 6         | ♠  | &  | 6  | F  | V  | f  | v  | å  | û  | æ  | ≡  | ≡  | ≡  | μ  | ÷  |    | 6         | ♠  | &  | 6  | F  | V  | f  | v  | å  | û  | æ  | ≡  | ≡  | ≡  | μ  | ÷  |    |
| 7         |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | ≡  | ≡  | ≡  | τ  | ≈  |    | 7         |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | ≡  | ≡  | ≡  | τ  | ≈  |    |
| 8         |    | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | ≡  | ≡  | ≡  | Φ  | °  |    | 8         |    | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | ≡  | ≡  | ≡  | Φ  | °  |    |
| 9         |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ¬  | ≡  | ≡  | ≡  | ∫  | θ  | •  | 9         |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ¬  | ≡  | ≡  | ≡  | ∫  | θ  | •  |
| A         |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | ¬  | ≡  | ≡  | ≡  | ∫  | Ω  | •  | A         |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | ¬  | ≡  | ≡  | ≡  | ∫  | Ω  | •  |
| B         |    | +  | ;  | K  | Æ  | k  | æ  | ï  | Φ  | ½  | ≡  | ≡  | ≡  | δ  | √  |    | B         |    | +  | ;  | K  | Æ  | k  | æ  | ï  | Φ  | ½  | ≡  | ≡  | ≡  | δ  | √  |    |
| C         |    | ,  | <  | L  | Ø  | l  | ø  | î  | £  | ¼  | ≡  | ≡  | ≡  | ∞  | n  |    | C         |    | ,  | <  | L  | Ø  | l  | ø  | î  | £  | ¼  | ≡  | ≡  | ≡  | ∞  | n  |    |
| D         |    | —  | =  | M  | Å  | m  | å  | ì  | ¥  | ;  | ≡  | ≡  | ≡  | ∅  | ²  |    | D         |    | —  | =  | M  | Å  | m  | å  | ì  | ¥  | ;  | ≡  | ≡  | ≡  | ∅  | ²  |    |
| E         |    | .  | >  | N  | ^  | n  | ~  | Ä  | ℞  | «  | ≡  | ≡  | ≡  | €  | ■  |    | E         |    | .  | >  | N  | Û  | n  | ü  | Ä  | ℞  | «  | ≡  | ≡  | ≡  | €  | ■  |    |
| F         |    | /  | ?  | O  | _  | o  |    | Å  | f  | »  | ≡  | ≡  | ≡  | ∩  |    | F  |           | /  | ?  | O  | _  | o  |    | Å  | f  | »  | ≡  | ≡  | ≡  | ∩  |    |    |    |



| Sweden |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | Italy |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|        | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |       | 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  | ≡  |    | 0     |    |    |    | 0  | @  | P  | ù  | p  | Ç  | É  | á  | ⌘  | ⌘  | α  | ≡  |    |
| 1      |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | ⌘  | β  | ±  |    | 1     |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | ⌘  | β  | ±  |    |
| 2      |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | ⌘  | Γ  | ≥  |    | 2     |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | ⌘  | Γ  | ≥  |    |
| 3      | ♥  | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | ⌘  | π  | ≤  |    | 3     | ♥  | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | ⌘  | π  | ≤  |    |
| 4      | ♦  | ¤  | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | —  | £  | Σ  | ∫  |    | 4     | ♦  | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | —  | £  | Σ  | ∫  |    |
| 5      | ♣  | §  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | ≡  | †  | ƒ  | σ  | Ј  |    | 5     | ♣  | §  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | ≡  | †  | ƒ  | σ  | Ј  |    |
| 6      | ♠  | &  | 6  | F  | V  | f  | v  | â  | û  | à  | ⌘  | ⌘  | ⌘  | μ  | ÷  |    | 6     | ♠  | &  | 6  | F  | V  | f  | v  | â  | û  | à  | ⌘  | ⌘  | ⌘  | μ  | ÷  |    |
| 7      |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | ⌘  | ⌘  | ⌘  | τ  | ≈  |    | 7     |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | ⌘  | ⌘  | ⌘  | τ  | ≈  |    |
| 8      |    | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | ⌘  | ⌘  | ⌘  | Φ  | °  |    | 8     |    | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | ⌘  | ⌘  | ⌘  | Φ  | °  |    |
| 9      |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ¬  | ⌘  | ⌘  | ⌘  | ∫  | θ  | •  | 9     |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ¬  | ⌘  | ⌘  | ⌘  | ∫  | θ  | •  |
| A      |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | ¬  | ⌘  | ⌘  | ⌘  | ∫  | Ω  | •  | A     |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | ¬  | ⌘  | ⌘  | ⌘  | ∫  | Ω  | •  |
| B      |    | +  | ;  | K  | Ä  | k  | ä  | ï  | ¢  | ½  | ⌘  | ⌘  | ⌘  | ⌘  | δ  | √  | B     |    | +  | ;  | K  | °  | k  | à  | ï  | ¢  | ½  | ⌘  | ⌘  | ⌘  | ⌘  | δ  | √  |
| C      |    | ,  | <  | L  | Ö  | l  | ö  | î  | £  | ¼  | ⌘  | ⌘  | ⌘  | ⌘  | ∞  | n  | C     |    | ,  | <  | L  | \  | l  | ò  | î  | £  | ¼  | ⌘  | ⌘  | ⌘  | ⌘  | ∞  | n  |
| D      |    | -  | =  | M  | Å  | m  | å  | ì  | ¥  | ¡  | ⌘  | ⌘  | ⌘  | ⌘  | ∅  | ²  | D     |    | -  | =  | M  | é  | m  | è  | ì  | ¥  | ¡  | ⌘  | ⌘  | ⌘  | ⌘  | ∅  | ²  |
| E      |    | .  | >  | N  | Ü  | n  | ü  | Ä  | ⌘  | «  | ≡  | ⌘  | ⌘  | ⌘  | €  | ■  | E     |    | .  | >  | N  | ^  | n  | ì  | Ä  | ⌘  | «  | ≡  | ⌘  | ⌘  | ⌘  | €  | ■  |
| F      |    | /  | ?  | O  | _  | o  |    | Å  | f  | »  | ⌘  | ⌘  | ⌘  | ⌘  | ∩  |    | F     |    | /  | ?  | O  | _  | o  |    | Å  | f  | »  | ⌘  | ⌘  | ⌘  | ⌘  | ∩  |    |

| Japan |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | Spain 1 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|       | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |         | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |
| 0     |    |    |    | 0  | @  | P  | `  | p  | Ç  | É  | Á  | ⌘  | ⌘  | α  | ≡  |    | 0       |    |    |    | 0  | @  | P  | `  | p  | Ç  | É  | Á  | ⌘  | ⌘  | α  | ≡  |    |
| 1     |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | β  | ±  |    |    | 1       |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | β  | ±  |    |    |
| 2     |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | Γ  | ≥  |    |    | 2       |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | Γ  | ≥  |    |    |
| 3     | ♥  | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | π  | ≤  |    |    | 3       | ♥  | ⌘  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | π  | ≤  |    |    |
| 4     | ♦  | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | —  | Σ  | ∫  |    |    | 4       | ♦  | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | —  | Σ  | ∫  |    |    |
| 5     | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | ≡  | †  | ƒ  | σ  | J  | 5       | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | ≡  | †  | ƒ  | σ  | J  |
| 6     | ♠  | &  | 6  | F  | V  | f  | v  | â  | û  | æ  | ≡  | ≡  | ≡  | μ  | ÷  |    | 6       | ♠  | &  | 6  | F  | V  | f  | v  | â  | û  | æ  | ≡  | ≡  | ≡  | μ  | ÷  |    |
| 7     |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | ⌘  | ⌘  | τ  | ≈  |    |    | 7       |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | ⌘  | ⌘  | τ  | ≈  |    |    |
| 8     |    | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | ⌘  | ⌘  | Φ  | °  |    |    | 8       |    | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | ⌘  | ⌘  | Φ  | °  |    |    |
| 9     |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ¬  | ⌘  | ⌘  | Θ  | •  |    |    | 9       |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ¬  | ⌘  | ⌘  | Θ  | •  |    |    |
| A     |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | ¬  | ⌘  | ⌘  | Ω  | •  |    |    | A       |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | ¬  | ⌘  | ⌘  | Ω  | •  |    |    |
| B     |    | +  | ;  | K  | [  | k  | {  | ï  | φ  | ½  | ⌘  | ⌘  | ■  | δ  | √  |    | B       |    | +  | ;  | K  | i  | k  | ”  | ï  | φ  | ½  | ⌘  | ⌘  | ■  | δ  | √  |    |
| C     |    | ,  | <  | L  | ¥  | l  |    | î  | £  | ¼  | ⌘  | ⌘  | ■  | ∞  | n  |    | C       |    | ,  | <  | L  | Ñ  | l  | ñ  | î  | £  | ¼  | ⌘  | ⌘  | ■  | ∞  | n  |    |
| D     |    | —  | =  | M  | ]  | m  | }  | ì  | ¥  | ;  | ⌘  | ⌘  | ■  | ∅  | ²  |    | D       |    | —  | =  | M  | ¿  | m  | }  | ì  | ¥  | ;  | ⌘  | ⌘  | ■  | ∅  | ²  |    |
| E     |    | .  | >  | N  | ^  | n  | ~  | Ä  | ⌘  | «  | ≡  | ⌘  | ■  | €  | ■  |    | E       |    | .  | >  | N  | ^  | n  | ~  | Ä  | ⌘  | «  | ≡  | ⌘  | ■  | €  | ■  |    |
| F     |    | /  | ?  | O  | _  | o  |    | Å  | f  | »  | ⌘  | ≡  | ■  | ∩  |    | F  |         | /  | ?  | O  | _  | o  |    | Å  | f  | »  | ⌘  | ≡  | ■  | ∩  |    |    |    |

| 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  | ☐  | Ł  | ⌘  | α  | ≡  |
| 1       |    |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ☐  | ⊥  | ⌞  | β  | ±  |
| 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  | J  |
| 6       | ♠  | &  | 6  | F  | V  | f  | v  | â  | û  | ä  | ⌞  | ⌞  | ⌞  | ⌞  | μ  | ÷  |
| 7       |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | ó  | ⌞  | ⌞  | ⌞  | ⌞  | 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  | Ù  | ⌞  | ⌞  | ⌞  | ⌞  | ⌞  | Ω  | •  |
| B       |    | +  | ;  | K  | i  | k  | í  | ï  | ç  | ½  | ⌞  | ⌞  | ⌞  | ⌞  | δ  | √  |
| C       |    | ,  | <  | L  | Ñ  | l  | ñ  | î  | £  | ¼  | ⌞  | ⌞  | ⌞  | ⌞  | ∞  | n  |
| D       |    | —  | =  | M  | ¿  | m  | ó  | ì  | ¥  | ;  | ⌞  | =  | ⌞  | ⌞  | ∅  | ²  |
| E       |    | .  | >  | N  | é  | n  | ú  | Ä  | ⌞  | «  | ⌞  | ⌞  | ⌞  | ⌞  | €  | ■  |
| F       |    | /  | ?  | O  | _  | o  |    | Å  | f  | »  | ⌞  | ⌞  | ⌞  | ⌞  | ∩  |    |

| 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  | ☐  | Ł  | ⌘  | α  | ≡  |
| 1      |    |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ☐  | ⊥  | ⌞  | β  | ±  |
| 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  | J  |
| 6      | ♠  | &  | 6  | F  | V  | f  | v  | â  | û  | ä  | ⌞  | ⌞  | ⌞  | ⌞  | μ  | ÷  |
| 7      |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | ó  | ⌞  | ⌞  | ⌞  | ⌞  | 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  | Ù  | ⌞  | ⌞  | ⌞  | ⌞  | ⌞  | Ω  | •  |
| B      |    | +  | ;  | K  | Æ  | k  | æ  | ï  | ç  | ½  | ⌞  | ⌞  | ⌞  | ⌞  | δ  | √  |
| C      |    | ,  | <  | L  | Ø  | l  | ø  | î  | £  | ¼  | ⌞  | ⌞  | ⌞  | ⌞  | ∞  | n  |
| D      |    | —  | =  | M  | Å  | m  | å  | ì  | ¥  | ;  | ⌞  | =  | ⌞  | ⌞  | ∅  | ²  |
| E      |    | .  | >  | N  | Û  | n  | ü  | Ä  | ⌞  | «  | ⌞  | ⌞  | ⌞  | ⌞  | €  | ■  |
| F      |    | /  | ?  | O  | _  | o  |    | Å  | f  | »  | ⌞  | ⌞  | ⌞  | ⌞  | ∩  |    |

| Latin America |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | Korea |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|               | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |       | 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  | ≡  | 0     |    |    |    | 0  | @  | P  | `  | p  | Ç  | É  | á  | ☐  | Ⓕ  | Ⓖ  | α  | ≡  |
| 1             |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ☐  | Ⓕ  | Ⓖ  | β  | ±  |    | 1     |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ☐  | Ⓕ  | Ⓖ  | β  | ±  |    |
| 2             |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ☐  | Ⓕ  | Ⓖ  | Γ  | ≥  |    | 2     |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ☐  | Ⓕ  | Ⓖ  | Γ  | ≥  |    |
| 3             | ♥  | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    | Ⓕ  | Ⓖ  | π  | ≤  |    | 3     | ♥  | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    | Ⓕ  | Ⓖ  | π  | ≤  |    |
| 4             | ♦  | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  | Ⓕ  | Ⓖ  | Σ  | ∫  |    | 4  | ♦     | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  | Ⓕ  | Ⓖ  | Σ  | ∫  |    |    |    |
| 5             | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | Ⓕ  | Ⓖ  | σ  | Ј  |    | 5     | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | Ⓕ  | Ⓖ  | σ  | Ј  |    |
| 6             | ♠  | &  | 6  | F  | V  | f  | v  | â  | û  | æ  | Ⓕ  | Ⓖ  | μ  | ÷  |    | 6  | ♠     | &  | 6  | F  | V  | f  | v  | â  | û  | æ  | Ⓕ  | Ⓖ  | μ  | ÷  |    |    |    |
| 7             |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | Ⓕ  | Ⓖ  | τ  | ≈  |    | 7  |       | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | Ⓕ  | Ⓖ  | τ  | ≈  |    |    |    |
| 8             |    | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | Ⓕ  | Ⓖ  | Φ  | °  |    | 8  |       | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | Ⓕ  | Ⓖ  | Φ  | °  |    |    |    |
| 9             |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | Ⓕ  | Ⓖ  | Ⓕ  | Θ  | •  |    | 9  |       | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | Ⓕ  | Ⓖ  | Ⓕ  | Θ  | •  |    |    |    |
| A             |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | Ⓕ  | Ⓖ  | Ⓕ  | Ω  | •  |    | A  |       | *  | :  | J  | Z  | j  | z  | è  | Ù  | Ⓕ  | Ⓖ  | Ⓕ  | Ω  | •  |    |    |    |
| B             |    | +  | ;  | K  | i  | k  | í  | ï  | φ  | ½  | Ⓕ  | Ⓖ  | Ⓕ  | δ  | √  |    | B     |    | +  | ;  | K  | [  | k  | {  | ï  | φ  | ½  | Ⓕ  | Ⓖ  | Ⓕ  | δ  | √  |    |
| C             |    | ,  | <  | L  | Ñ  | l  | ñ  | î  | £  | ¼  | Ⓕ  | Ⓖ  | Ⓕ  | ∞  | n  |    | C     |    | ,  | <  | L  | W  | l  |    | î  | £  | ¼  | Ⓕ  | Ⓖ  | Ⓕ  | ∞  | n  |    |
| D             |    | -  | =  | M  | ¿  | m  | ó  | ì  | ¥  | ¡  | Ⓕ  | Ⓖ  | Ⓕ  | ∅  | ²  |    | D     |    | -  | =  | M  | ]  | m  | }  | ì  | ¥  | ¡  | Ⓕ  | Ⓖ  | Ⓕ  | ∅  | ²  |    |
| E             |    | .  | >  | N  | é  | n  | ú  | Ä  | Ⓕ  | «  | Ⓕ  | Ⓖ  | Ⓕ  | €  | ■  |    | E     |    | .  | >  | N  | ^  | n  | ~  | Ä  | Ⓕ  | «  | Ⓕ  | Ⓖ  | Ⓕ  | €  | ■  |    |
| F             |    | /  | ?  | O  | _  | o  |    | Å  | f  | »  | Ⓕ  | Ⓖ  | Ⓕ  | ∩  |    | F  |       | /  | ?  | O  | _  | o  |    | Å  | f  | »  | Ⓕ  | Ⓖ  | Ⓕ  | ∩  |    |    |    |

| Turkey |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | Legal |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
|        | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |       | 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  | ≡  |    | 0     |    |    |    | 0  | Ş  | P  | `  | p  | Ç  | É  | á  | ⌘  | ⌘  | α  | ≡  |    |   |
| 1      |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | ⊥  | ⌞  | β  | ±  | 1     |    | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ⌘  | ⌘  | ⊥  | ⌞  | β  | ±  |   |
| 2      |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | ⌞  | ⌞  | Γ  | ≥  | 2     |    | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ⌘  | ⌘  | ⌞  | ⌞  | Γ  | ≥  |   |
| 3      | ♥  | ℒ  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | ⌘  | π  | ≤  |    | 3     | ♥  | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    |    | ⌘  | π  | ≤  |    |   |
| 4      | ♦  | é  | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | —  | £  | Σ  | ∫  | 4  | ♦     | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | —  | £  | Σ  | ∫  |    |    |   |
| 5      | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | ≡  | †  | ƒ  | σ  | ∫  | 5     | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  | ≡  | †  | ƒ  | σ  | ∫  |   |
| 6      | ♠  | &  | 6  | F  | V  | f  | v  | â  | û  | æ  | ≡  | ≡  | ≡  | μ  | ÷  | 6  | ♠     | &  | 6  | F  | V  | f  | v  | â  | û  | æ  | ≡  | ≡  | ≡  | ≡  | μ  | ÷  |    |   |
| 7      |    | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | ≡  | ≡  | ≡  | τ  | ≈  | 7  |       | '  | 7  | G  | W  | g  | w  | ç  | ù  | º  | ≡  | ≡  | ≡  | ≡  | τ  | ≈  |    |   |
| 8      |    | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | ≡  | ≡  | ≡  | Φ  | °  | 8  |       | (  | 8  | H  | X  | h  | x  | ê  | ÿ  | ¿  | ≡  | ≡  | ≡  | ≡  | Φ  | °  |    |   |
| 9      |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ¬  | ≡  | ≡  | ≡  | ⌞  | θ  | •  | 9     |    | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ¬  | ≡  | ≡  | ≡  | ≡  | ⌞  | θ  | • |
| A      |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | ¬  | ≡  | ≡  | ≡  | ⌞  | Ω  | •  | A     |    | *  | :  | J  | Z  | j  | z  | è  | Ù  | ¬  | ≡  | ≡  | ≡  | ≡  | ⌞  | Ω  | • |
| B      |    | +  | ;  | K  | Ğ  | k  | ğ  | ï  | ç  | ½  | ≡  | ≡  | ≡  | ■  | δ  | √  | B     |    | +  | ;  | K  | °  | k  | ©  | ï  | ç  | ½  | ≡  | ≡  | ≡  | ≡  | ■  | δ  | √ |
| C      |    | ,  | i  | L  | Ö  | l  | ö  | î  | £  | ¼  | ≡  | ≡  | ≡  | ■  | ∞  | n  | C     |    | ,  | <  | L  | '  | l  | ®  | î  | £  | ¼  | ≡  | ≡  | ≡  | ≡  | ■  | ∞  | n |
| D      |    | —  | =  | M  | Ş  | m  | ş  | ì  | ¥  | ì  | ≡  | ≡  | ≡  | ■  | ∅  | ²  | D     |    | —  | =  | M  | ˘  | m  | †  | ì  | ¥  | ì  | ≡  | ≡  | ≡  | ≡  | ■  | ∅  | ² |
| E      |    | .  | †  | N  | Ü  | n  | ü  | Ä  | £  | «  | ≡  | ≡  | ≡  | ■  | €  | ■  | E     |    | .  | >  | N  | ¶  | n  | ™  | Ä  | £  | «  | ≡  | ≡  | ≡  | ≡  | ■  | €  | ■ |
| F      |    | /  | ?  | O  | _  | o  |    | Å  | f  | »  | ≡  | ≡  | ≡  | ■  | ∩  |    | F     |    | /  | ?  | O  | _  | o  |    | Å  | f  | »  | ≡  | ≡  | ≡  | ≡  | ■  | ∩  |   |

| Old Hebrew |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|            | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |
| 0          |    |    |    | 0  | @  | P  | x  | ı  | Ç  | É  | á  | ▤  | └  | ⌋  | α  | ≡  |
| 1          |    | !  | 1  | A  | Q  | ı  | o  | ü  | æ  | ı  | ▤  | └  | ┐  | β  | ±  |    |
| 2          |    | "  | 2  | B  | R  | ı  | y  | é  | Æ  | ó  | ▤  | └  | ┐  | Γ  | ≥  |    |
| 3          | ♥  | #  | 3  | C  | S  | ı  | ı  | â  | ô  | ú  |    | └  | ┐  | π  | ≤  |    |
| 4          | ♦  | \$ | 4  | D  | T  | ı  | ı  | ä  | ö  | ñ  |    | —  | └  | Σ  | ı  |    |
| 5          | ♣  | §  | %  | 5  | E  | U  | ı  | ı  | à  | ò  | ñ  | └  | ┐  | ƒ  | σ  | J  |
| 6          | ♠  | &  | 6  | F  | V  | ı  | ı  | a  | û  | ä  | └  | ┐  | ┐  | μ  | ÷  |    |
| 7          |    | '  | 7  | G  | W  | ı  | ı  | ç  | ù  | ó  | └  | ┐  | ┐  | τ  | ≈  |    |
| 8          |    | (  | 8  | H  | X  | ı  | ı  | ê  | ÿ  | ı  | └  | ┐  | ┐  | Φ  | °  |    |
| 9          |    | )  | 9  | I  | Y  | ı  | ı  | ø  | Ö  | ı  | └  | ┐  | ┐  | θ  | •  |    |
| A          |    | *  | :  | J  | Z  | ı  | ı  | è  | Ù  | ı  | └  | ┐  | ┐  | Ω  | •  |    |
| B          |    | +  | ;  | K  | [  | ı  | ı  | ı  | Ç  | ½  | └  | ┐  | ┐  | δ  | √  |    |
| C          |    | ,  | <  | L  | \  | ı  | ı  | ı  | £  | ¼  | └  | ┐  | ┐  | ∞  | n  |    |
| D          |    | —  | =  | M  | ]  | ı  | ı  | ı  | ¥  | ı  | └  | ┐  | ┐  | ø  | ²  |    |
| E          |    | .  | >  | N  | ^  | ı  | ı  | ı  | Ä  | ı  | └  | ┐  | ┐  | ε  | ■  |    |
| F          |    | /  | ?  | O  | _  | ı  | ı  | ı  | Å  | ı  | └  | ┐  | ┐  | ı  | ı  |    |

# 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.





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