

IBM RT PC Advanced Interactive Executive Operating System Version 2.1

# Keyboard Description and Character Reference

Programming Family



Personal  
Computer  
Software

SC23-0813-0

# Keyboard Description and Character Reference

Programming Family



Personal  
Computer  
Software

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## **First Edition (January 1987)**

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# About This Book

## Audience and Purpose

This manual describes the IBM RT Personal Computer <sup>1</sup> international character keyboards. The following keyboards are discussed:

- Belgian-French/Dutch
- Canadian-French
- Danish
- Finnish/Swedish
- French
- German
- Italian
- Japanese
- Norwegian
- Portuguese
- Spanish
- Swiss-French/German
- United Kingdom English
- United States English

This manual can be used as a reference for systems programmers and developers who need to understand the international character support for a specific country. The reader of this manual should have an understanding of hardware and operating system fundamentals.

**Note:** The IBM RT PC is also called the IBM 6150 Micro Computer in countries other than the United States.

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<sup>1</sup> RT, RT PC, and RT Personal Computer are trademarks of International Business Machines Corporation.

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## How to Use This Book

This manual consists of the following sections:

“Part 1. Overview” on page 1 provides a detailed description of IBM RT PC international characters and keyboards.

“Part 2. Appendices” on page 1-51 includes the following:

Appendix A, “Keyboard Scan Codes” on page A-1 contains the keyboard scan codes.

Appendix B, “Differences Between the 101-, 102-, and 106-Key Keyboards” on page B-1 details the differences between the 101-key US keyboard and the 102-key keyboard, and the 101-key US keyboard and the 106-key Japanese keyboard.

Appendix C, “Processing Examples” on page C-1 provides input and output processing examples.

“Part 3. Keyboard Tables” on page C-19 contains the keyboard layouts and keyboard tables for each country in the following order:

Appendix D, “Belgian-French/Dutch Keyboard Layout and Table” on page D-1

Appendix E, “Canadian/French Keyboard Layout and Table” on page E-1

Appendix F, “Danish Keyboard Layout and Table” on page F-1

Appendix G, “Finnish/Swedish Keyboard Layout and Table” on page G-1

Appendix H, “French Keyboard Layout and Table” on page H-1

Appendix I, “German Keyboard Layout and Table” on page I-1

Appendix J, “Italian Keyboard Layout and Table” on page J-1

Appendix K, “Japanese Keyboard Layout and Table” on page K-1

Appendix L, “Norwegian Keyboard Layout and Table” on page L-1

Appendix M, “Portuguese Keyboard Layout and Table” on page M-1

Appendix N, “Spanish Keyboard Layout and Table” on page N-1

Appendix O, “Swiss Keyboard Layout with French Table” on page O-1

“Swiss/German Keyboard Table” on page P-5

Appendix Q, “UK English Keyboard Layout and Table” on page Q-1

Appendix R, “US English Keyboard Layout and Table” on page R-1

A glossary and index follow these chapters and appendices.

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improve the book. After you become familiar with the book, use the Book Evaluation Form to give IBM specific feedback about the book.

Please note the following items regarding hexadecimal notation and highlighting conventions used in this manual:

- A hexadecimal value as expressed in this publication is preceded by a zero and a lowercase x. For example, the hexadecimal value 'f3' is represented as 0xf3.
- Terms highlighted in bold-faced italics (such as ***example***) are specific to RT PC and are included in the glossary. Terms highlighted in bold type (such as **example**) are specific keys on the keyboard. Terms or phrases that appear in monospace type (such as `example`) are examples you might see on a display screen or what you must enter into the system to perform a given function.

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## Related Information

The following IBM RT PC publications provide additional information on topics related to the RT PC keyboards.

- *IBM RT PC Installing and Customizing the AIX Operating System* provides step-by-step instructions for installing and customizing the AIX Operating System, including how to add or delete devices from the system and how to define device characteristics. This book also explains how to create, delete, or change AIX and non-AIX minidisks.
- *IBM RT PC AIX Operating System Programming Tools and Interfaces* describes the programming environment of the AIX Operating System and includes information about using the operating system tools to develop, compile, and debug programs. In addition, this book describes the operating system services and how to take advantage of them in a program. This book also includes a diskette that includes programming examples, written in C language, to illustrate using system calls and subroutines in short, working programs. (Available optionally)
- *IBM RT PC AIX Operating System Technical Reference* describes the system calls and subroutines that a C programmer uses to write programs for the AIX Operating System. This book also includes information about the AIX file system, special files, file formats, GSL subroutines, and writing device drivers. (Available optionally)
- *IBM RT PC Virtual Resource Manager Technical Reference* is a two-volume set. The first volume, *Virtual Resource Manager Programming Reference*, describes the VRM programming environment, including the internal VRM routines, VRM floating-point support, use of the VRM debugger, and the supervisor call instructions that form the Virtual Machine Interface. The second volume, *Virtual Resource Manager Device Support*, describes device IPL and configuration, minidisk management, the virtual terminal and block I/O subsystems, as well as the interfaces to the predefined VRM device drivers. This volume also describes the programming conventions for developing your own VRM code and installing it on the system.
- *IBM RT PC Personal Computer AT Coprocessor Services Technical Reference* describes differences between writing applications for the IBM Personal Computer AT and IBM RT PC Personal Computer AT Coprocessor Services. This book also includes Personal Computer AT Coprocessor Services BIOS listing, hardware technical information, Math Co-Processor information, and the 286 and 287 instruction sets. (Available optionally)

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- To order from your IBM representative, use Order Number SBOF-0126.
- To order from your IBM dealer, use Part Number 79X3849.

A binder is included with the order.





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## Part 1. Overview



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# Chapter 1. RT PC Character Set Overview

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## About This Section

This section describes the hardware and software keyboards available with IBM RT PC, and provides detailed information on the following topics:

- “Code Page Overview” on page 1-4 provides an overview of the code pages in the RT PC, and shows the general structure of a code page. You will also find an explanation of single shift controls, as well as an explanation of graphic code points. Detailed tables of the structure of and characters contained in Code Pages P0, P1, and P2 are also provided in this chapter.
- “Keyboard Overview” on page 1-32 gives you an overview of the three keyboards, with details about position codes, and illustrations showing the layout and codes for the three keyboards: the 101-key (US English) keyboard, the 102-key keyboard, and the 106-key (Japanese) keyboard. This section also describes the five keyboard states for all three keyboards.
- “Overview of Nonspacing Characters” on page 1-37 gives you a general explanation of nonspacing characters, describes valid and invalid nonspacing character sequences with examples, and provides a list of valid diacritics, and tables of the valid set of characters for each of the diacritics.



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## Code Page Overview

The IBM RT PC has 571 distinct characters.

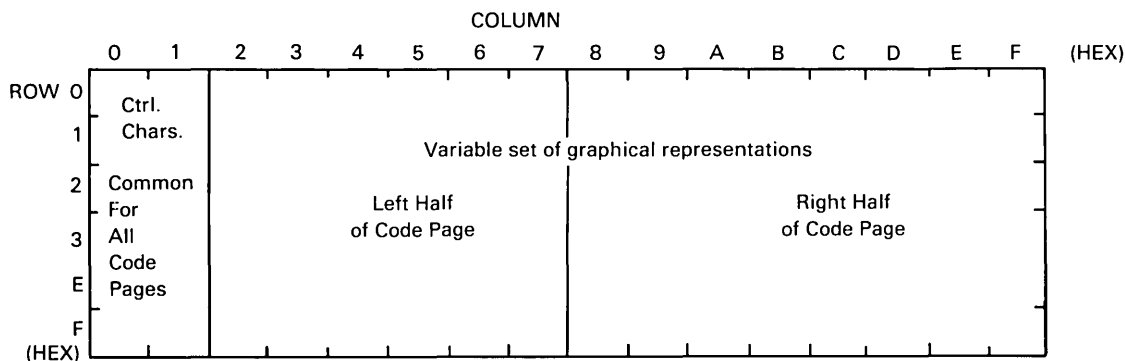
To designate these characters within the RT PC, a code page format has been established. Each code page consists of 256 possible graphic representations. The first 32 code points in each code page are reserved for control characters and are common for all code pages. The control code points do not have graphic representations.

The remaining 539 characters are divided into three code pages:

- Code Page P0
- Code Page P1
- Code Page P2.

Each code page can have a maximum of 224 graphic characters.

The general code page layout is shown below.



The following figures, Figure 1-1 on page 1-5, Figure 1-2 on page 1-6, and Figure 1-3 on page 1-7, summarize the layout of Code Pages P0, P1, and P2, respectively.

The descriptions of characters in Code Pages P0, P1, and P2 are given in Figure 1-4 on page 1-11, Figure 1-5 on page 1-18, and in Figure 1-6 on page 1-25, respectively.

		First Hexadecimal Digit																	
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F		
Second Hexadecimal Digit	0	NUL	DLE	BLANK (SPACE)	0	@	P	'	p	Ç	É	á	▤	⊔	ø	Ó	-		
	1	SOH	DC1	!	1	A	Q	a	q	ü	æ	í	▥	⊔	Ð	β	±		
	2	STX	DC2	"	2	B	R	b	r	é	Æ	ó	▧	⊔	Ê	Ô	=		
	3	ETX	DC3	#	3	C	S	c	s	â	ô	ú	▨	⊔	Ë	Ò	¾		
	4	EOT	DC4	\$	4	D	T	d	t	ä	ö	ñ	▩	⊔	È	õ	π		
	5	ENQ	NAK	%	5	E	U	e	u	à	ò	Ñ	▫	⊔	ı	Õ	§		
	6	ACK	SYN	&	6	F	V	f	v	â	û	ä	▬	⊔	ã	İ	÷		
	7	BEL	ETB	'	7	G	W	g	w	ç	ù	ó	▭	⊔	À	Ã	İ	þ	¸
	8	BS	CAN	(	8	H	X	h	x	ê	ÿ	ı	▮	⊔	ı	Þ	°		
	9	HT	EM	)	9	I	Y	i	y	ë	Ö	®	▯	⊔	ı	Ú	¨		
	A	LF	SUB	*	:	J	Z	j	z	è	Ü	▰	▯	⊔	ı	Û	•		
	B	VT	ESC	+	;	K	I	k	{	ï	φ	½	▱	⊔	ı	Ü	¹		
	C	FF	SS4	,	<	L	\	l		î	£	¼	▲	⊔	ı	Ý	³		
	D	CR	SS3	-	=	M		m	}	ì	∅	ı	△	⊔	ı	Ÿ	²		
	E	SO	SS2	.	>	N	^	n	~	Ä	×	«	▴	⊔	ı	-	■		
	F	S1	SS1	/	?	O	_	o	△	Å	ƒ	»	▵	⊔	ı	-	BLANK 'FF'		

Figure 1-1. Arrangement of Code Page 0

		First Hexadecimal Digit															
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Second Hexadecimal Digit	0	NUL	DLE	•	▶	ã	ý	Ò	Ě	š	ř	ℓ	Ě	Ĭ	ō	ų	“
	1	SOH	DC1	☺	◄	β	ƀ	Ó	Č	Ľ	ř	'n	ĝ	ĵ	Ō	Ū	”
	2	STX	DC2	☹	↕	Â	-	Õ	Č	Ň	ó	Œ	ĝ	Ĵ	œ	ŵ	=
	3	ETX	DC3	♥	!!	À	Ꝥ	³	˘	Ř	ú	-	Ĝ	ĵ	Œ	Ŵ	·
	4	EOT	DC4	♦	¶	Á	Đ	Û	Ě	Ś	Ť	ı	ĝ	ĵ	ı	ŷ	+
	5	ENQ	NAK	♣	§	Ã	Ý	Ù	Û	·	Ř	Ť	Ĝ	ķ	Ŕ	Ŷ	∞
	6	ACK	SYN	♠	■	ø	ƀ	Ú	Ď	ž	Ó	ā	Ĝ	Ķ	š	ÿ	π
	7	BEL	ETB	•	↕	Ê	®	ą	Ĺ	˘	Ū	Ā	ĥ	Ķ	Ŝ	©	Δ
	8	BS	CAN	•	↑	Ë	¾	ě	ĭ	Ž	ă	ĉ	Ĥ	ĵ	ı	ı	→
	9	HT	EM	○	↓	È	-	č	ň	ž	ĝ	Č	ĥ	Ĵ	Ŧ	ı	/
	A	LF	SUB	○	→	Í	˘	ć	đ	ž	ı	\	Ĥ	ı	ũ	¼	†
	B	VT	ESC	♂	←	Î	˘	ę	ř	Ž	Ā	ć	ĩ	Ľ	Ū	⅜	<
	C	FF	SS4	♀	└	İ	=	ű	ś	Ž	Ĝ	Č	İ	ņ	ũ	⅝	>
	D	CR	SS3	♪	↔	Ì	õ	ď	◦	Ł	˘	é	ĩ	Ń	Ū	⅞	℞
	E	SO	SS2	♪	▲	Ø	ı	Í	ł	Ń	˘	È	İ	Ń	ũ	×	Ē
	F	S1	SS1	☼	▼	ø	Ô	Ą	ń	Š	ş	ē	ı	Ń	Ū	'	∴

Figure 1-2. Arrangement of Code Page 1

		First Hexadecimal Digit															
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Second Hexadecimal Digit	0	NUL	DLE	/	⊂	ω	₁	∂	⁶	≡	τ	√					
	1	SOH	DC1	\	⊕	ν	₂	~	⁷	≡	ϕ	π					
	2	STX	DC2	‡	⊥	ο	₃	□	⁸	≡	θ	η					
	3	ETX	DC3	≠	⊗	ρ	₄	■	⁹	≡	Ω						
	4	EOT	DC4	∨	"	γ	₅	◻	φ	≡	δ	ϕ					
	5	ENQ	NAK	∧	=	∂	₆	∇	P†s	≡	∞	⊥					
	6	ACK	SYN		ψ	γ	₇	∟	∇	≡	∅	∨					
	7	BEL	ETB	∠	ε	∪	₈	≡	≡	≡	∞	∇					
	8	BS	CAN	<	λ	≅	₉	∞	≡	■	∩	∅					
	9	HT	EM	>	η	ξ	⊥	Δ	≡	■	≡						
	A	LF	SUB	+	ι	χ	◊	Υ	≡	∞	≥						
	B	VT	ESC	□	∩	υ	Ψ	≅	≡	β	≤						
	C	FF	SS4	,	∪	ζ	Π	~	≡	Γ	∫						
	D	CR	SS3	∫	%∞	∫	Λ	⁰	≡	π	∫						
	E	SO	SS2	∪	θ	∪	●	⁴	≡	Σ	≈						
	F	S1	SS1	∪	κ	₀	♣	⁵	≡	σ	•						

Figure 1-3. Arrangement of Code Page 2

---

## Code Page Switching

Four of the control characters in the previous code pages are defined as (*SSn*) *single shift* characters, namely, SS1, SS2, SS3, and SS4. Using one of these characters in an input or output data stream means that the character following the single shift control is from:

- Code Page P1 left half (0x20 – 0x7f)
- Code Page P1 right half (0x80 – 0xff)
- Code Page P2 left half (0x20 – 0x7f)
- Code Page P2 right half (0x80 – 0xff).

Code points from Code Page P0 are not preceded by a single shift control character. The advantages of this code page switching scheme are that existing 7-bit and 8-bit ASCII programs can operate together with programs developed to use the full RT PC character set and, as the most used characters are in Code Page P0, the number of additional shift characters is limited.

An example of a data stream used is:

P0, P0, P0, P0, P0, P0, P0, SS3, P2, P0, P0, SS1, P1, P0, P0 . . .

Where: P0 is a character from Code Page P0

P1 is a character from Code Page P1

P2 is a character from Code Page P2

SS1 and SS3 are the single shift control characters

RT PC applications can be divided into three categories regarding their level of usage. Applications from all categories can run concurrently on the system.

The first category is the 7-bit US ASCII in RT PC represented by code points 32 (0x20) to 127 (0x7f) in Code Page P0, the left half of Code Page P0.

The second category is for all characters in Code Page P0 which are in code points 32 (0x20) to 255 (0xff).

The third and most extended category is where all code pages in RT PC can be addressed.

The level of international characters you use will be determined by the level of the input devices, the operating system, the application programs, and the output devices.

---

## Code Point Processing

The code point encoding scheme can be illustrated by the following example in which bit patterns are represented and SS1, SS2, SS3, and SS4 are the single byte controls, Single Shift 1, 2, 3, and 4:

0xxx	xxxx	Left half of P0	
1xxx	xxxx	Right half of P0	
SS1	1xxx	xxxx	Left half of P1
SS2	1xxx	xxxx	Right half of P1
SS3	1xxx	xxxx	Left half of P2
SS4	1xxx	xxxx	Right half of P2

In this scheme, code points in the range of 0x00 – 0x7f are unique in the data stream.<sup>1</sup> If echo<sup>00</sup> is on, these code points are never validly preceded by a single shift control byte. Only code points in the range of 0x80 – 0xff are legitimately allowed to be preceded by a single shift control. Code points in the range of 0x80 – 0xff are also valid when they are not preceded by a single shift control.

The advantages of this encoding scheme are realized in virtual machine operating systems, applications, and utilities which are traditionally 7-bit ASCII oriented. These advantages are:

- Reduction of the amount of change to most programs
- Elimination of changes to many programs
- Reduction of changes to the virtual machine operating system

When data is entered using the keyboard, the VTMP prefixes code points for characters which are in the left half of Code Page P1, the right half of Code Page P1, the left half of Code Page P2, or the right half of Code Page P2 with SS1, SS2, SS3, or SS4, respectively, and performs the appropriate encoding. Code points for characters in Code Page P0 are unprefixed.

---

<sup>1</sup> If echo is off, the terminal will not set the high-order bit. In this case, if you enter a single shift control followed by a code point (range 0x00 – 0x7f), the data stream will be reported as keyed. That is, the high-order bit will not be set. Note that the state of echo has no effect on the data stream reported for single keys. A single key that is assigned a code point in a Code Page 1 or Code Page 2 will always be reported according to the above scheme. For example, a key assigned a code point of 0x41 in Code Page 2 will always be reported in the data stream as 0x1dc1.

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## P0, P1, and P2 Character Graphic Code Points

The arrangement of the 571 characters into the three code pages, P0, P1, and P2 is shown in the following pages. The table that follows gives you an explanation of each column and heading in the tables.

<b>Position Number</b>	Number of the character.
<b>Character</b>	Shows that actual character along with a brief description of the character.
<b>Code Page</b>	The hexadecimal (column, row) representation within the code page.
<b>Internal Code</b>	The internal data stream representation of the character.

The characters in Code Page P0, indicated by the prefix *P0* to the left of their hexadecimal notation, have an internal (data stream) representation of the unprefix code point. For example, the Code Page P0 character *Ñ (n Tilde Capital)* has an internal representation of 0xa5.

The characters which are in Code Page P1, indicated by the prefix *P1* to the left of their hexadecimal code page index, have an internal representation of SS1 or SS2 preceding the code point for characters in the left half or right half, respectively. The characters in Code Page P2, indicated by the prefix *P2* to the left of their hexadecimal code page index, have an internal representation of SS3 or SS4 preceding the code point for characters in the left half or right half, respectively. For example, the Code Page P1 character, *Ã (a Tilde Capital)*, has an internal representation of 0x1fc5 and the Code Page P2 character *≠ (Not Equal Sign)* has an internal representation of 0x1da3.

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Position Number	Character	Code Page Code Point	Internal Code
32	Space	P0-32 (0x20)	0x20
33	! Exclamation Point	P0-33 (0x21)	0x21
34	" Double Quote	P0-34 (0x22)	0x22
35	# Number Sign	P0-35 (0x23)	0x23
36	\$ Dollar Sign	P0-36 (0x24)	0x24
37	% Percent Sign	P0-37 (0x25)	0x25
38	& Ampersand	P0-38 (0x26)	0x26
39	' Apostrophe, Acute Accent	P0-39 (0x27)	0x27
40	( Left Parenthesis	P0-40 (0x28)	0x28
41	) Right Parenthesis	P0-41 (0x29)	0x29
42	* Asterisk	P0-42 (0x2a)	0x2a
43	+ Plus Sign	P0-43 (0x2b)	0x2b
44	, Comma	P0-44 (0x2c)	0x2c
45	- Hyphen, Minus Sign	P0-45 (0x2d)	0x2d
46	. Period	P0-46 (0x2e)	0x2e
47	/ Slash	P0-47 (0x2f)	0x2f
48	0 Zero	P0-48 (0x30)	0x30
49	1 One	P0-49 (0x31)	0x31
50	2 Two	P0-50 (0x32)	0x32
51	3 Three	P0-51 (0x33)	0x33
52	4 Four	P0-52 (0x34)	0x34
53	5 Five	P0-53 (0x35)	0x35
54	6 Six	P0-54 (0x36)	0x36
55	7 Seven	P0-55 (0x37)	0x37
56	8 Eight	P0-56 (0x38)	0x38
57	9 Nine	P0-57 (0x39)	0x39
58	: Colon	P0-58 (0x3a)	0x3a
59	; Semicolon	P0-59 (0x3b)	0x3b
60	< Less Than Sign	P0-60 (0x3c)	0x3c
61	= Equal Sign	P0-61 (0x3d)	0x3d
62	> Greater Than Sign	P0-62 (0x3e)	0x3e
63	? Question Mark	P0-63 (0x3f)	0x3f
64	@ At Sign	P0-64 (0x40)	0x40
65	A a Uppercase	P0-65 (0x41)	0x41
66	B b Uppercase	P0-66 (0x42)	0x42
67	C c Uppercase	P0-67 (0x43)	0x43
68	D d Uppercase	P0-68 (0x44)	0x44

**Figure 1-4 (Part 1 of 7). Code Page P0**



Position Number	Character	Code Page Code Point	Internal Code
69	E e Uppercase	P0-69 (0x45)	0x45
70	F f Uppercase	P0-70 (0x46)	0x46
71	G g Uppercase	P0-71 (0x47)	0x47
72	H h Uppercase	P0-72 (0x48)	0x48
73	I i Uppercase	P0-73 (0x49)	0x49
74	J j Uppercase	P0-74 (0x4a)	0x4a
75	K k Uppercase	P0-75 (0x4b)	0x4b
76	L l Uppercase	P0-76 (0x4c)	0x4c
77	M m Uppercase	P0-77 (0x4d)	0x4d
78	N n Uppercase	P0-78 (0x4e)	0x4e
79	O o Uppercase	P0-79 (0x4f)	0x4f
80	P p Uppercase	P0-80 (0x50)	0x50
81	Q q Uppercase	P0-81 (0x51)	0x51
82	R r Uppercase	P0-82 (0x52)	0x52
83	S s Uppercase	P0-83 (0x53)	0x53
84	T t Uppercase	P0-84 (0x54)	0x54
85	U u Uppercase	P0-85 (0x55)	0x55
86	V v Uppercase	P0-86 (0x56)	0x56
87	W w Uppercase	P0-87 (0x57)	0x57
88	X x Uppercase	P0-88 (0x58)	0x58
89	Y y Uppercase	P0-89 (0x59)	0x59
90	Z z Uppercase	P0-90 (0x5a)	0x5a
91	[ Left Bracket	P0-91 (0x5b)	0x5b
92	\ Reverse Slash	P0-92 (0x5c)	0x5c
93	] Right Bracket	P0-93 (0x5d)	0x5d
94	^ Circumflex Accent, Up Arrow	P0-94 (0x5e)	0x5e
95	_ Underline, Low Line	P0-95 (0x5f)	0x5f
96	` Grave Accent, Left Single Quote	P0-96 (0x60)	0x60
97	a a Lowercase	P0-97 (0x61)	0x61
98	b b Lowercase	P0-98 (0x62)	0x62
99	c c Lowercase	P0-99 (0x63)	0x63
100	d d Lowercase	P0-100 (0x64)	0x64
101	e e Lowercase	P0-101 (0x65)	0x65
102	f f Lowercase	P0-102 (0x66)	0x66
103	g g Lowercase	P0-103 (0x67)	0x67
104	h h Lowercase	P0-104 (0x68)	0x68
105	i i Lowercase	P0-105 (0x69)	0x69

Figure 1-4 (Part 2 of 7). Code Page P0

Position Number	Character	Code Page Code Point	Internal Code
106	j j Lowercase	P0-106 (0x6a)	0x6a
107	k k Lowercase	P0-107 (0x6b)	0x6b
108	l l Lowercase	P0-108 (0x6c)	0x6c
109	m m Lowercase	P0-109 (0x6d)	0x6d
110	n n Lowercase	P0-110 (0x6e)	0x6e
111	o o Lowercase	P0-111 (0x6f)	0x6f
112	p p Lowercase	P0-112 (0x70)	0x70
113	q q Lowercase	P0-113 (0x71)	0x71
114	r r Lowercase	P0-114 (0x72)	0x72
115	s s Lowercase	P0-115 (0x73)	0x73
116	t t Lowercase	P0-116 (0x74)	0x74
117	u u Lowercase	P0-117 (0x75)	0x75
118	v v Lowercase	P0-118 (0x76)	0x76
119	w w Lowercase	P0-119 (0x77)	0x77
120	x x Lowercase	P0-120 (0x78)	0x78
121	y y Lowercase	P0-121 (0x79)	0x79
122	z z Lowercase	P0-122 (0x7a)	0x7a
123	{ Left Brace	P0-123 (0x7b)	0x7b
124	Logical OR	P0-124 (0x7c)	0x7c
125	} Right Brace	P0-125 (0x7d)	0x7d
126	~ Tilde Accent	P0-126 (0x7e)	0x7e
127	Δ Del	P0-127 (0x7f)	0x7f
128	Ç c Cedilla Capital	P0-128 (0x80)	0x80
129	ü u Umlaut Small	P0-129 (0x81)	0x81
130	é e Acute Small	P0-130 (0x82)	0x82
131	â a Circumflex Small	P0-131 (0x83)	0x83
132	ä a Umlaut Small	P0-132 (0x84)	0x84
133	à a Grave Small	P0-133 (0x85)	0x85
134	â a Overcircle Small	P0-134 (0x86)	0x86
135	ç c Cedilla Small	P0-135 (0x87)	0x87
136	ê e Circumflex Small	P0-136 (0x88)	0x88
137	ë e Umlaut Small	P0-137 (0x89)	0x89
138	è e Grave Small	P0-138 (0x8a)	0x8a
139	ï i Umlaut Small	P0-139 (0x8b)	0x8b
140	î i Circumflex Small	P0-140 (0x8c)	0x8c
141	ì i Grave Small	P0-141 (0x8d)	0x8d
142	Ä a Umlaut Capital	P0-142 (0x8e)	0x8e

Figure 1-4 (Part 3 of 7). Code Page P0

Position Number	Character	Code Page Code Point	Internal Code
143	Å	a Overcircle Capital	P0-143 (0x8f) 0x8f
144	É	e Acute Capital	P0-144 (0x90) 0x90
145	æ	ae Diphthong Small	P0-145 (0x91) 0x91
146	Æ	ae Diphthong Capital	P0-146 (0x92) 0x92
147	ô	o Circumflex Small	P0-147 (0x93) 0x93
148	ö	o Umlaut Small	P0-148 (0x94) 0x94
149	ò	o Grave Small	P0-149 (0x95) 0x95
150	û	u Circumflex Small	P0-150 (0x96) 0x96
151	ù	u Grave Small	P0-151 (0x97) 0x97
152	ÿ	y Umlaut Small	P0-152 (0x98) 0x98
153	Ö	o Umlaut Capital	P0-153 (0x99) 0x99
154	Û	u Umlaut Capital	P0-154 (0x9a) 0x9a
155	ø	o Slash Small	P0-155 (0x9b) 0x9b
156	£	English Pound Sign	P0-156 (0x9c) 0x9c
157	Ø	o Slash Capital	P0-157 (0x9d) 0x9d
158	×	Multiplication Sign	P0-158 (0x9e) 0x9e
159	f	Florin Sign	P0-159 (0x9f) 0x9f
160	á	a Acute Small	P0-160 (0xa0) 0xa0
161	í	i Acute Small	P0-161 (0xa1) 0xa1
162	ó	o Acute Small	P0-162 (0xa2) 0xa2
163	ú	u Acute Small	P0-163 (0xa3) 0xa3
164	ñ	n Tilde Small	P0-164 (0xa4) 0xa4
165	Ñ	n Tilde Capital	P0-165 (0xa5) 0xa5
166	♀	Feminine Sign	P0-166 (0xa6) 0xa6
167	♂	Masculine Sign	P0-167 (0xa7) 0xa7
168	¿	Inverted Question Mark	P0-168 (0xa8) 0xa8
169	®	Registered Trademark	P0-169 (0xa9) 0xa9
170	¬	Logical Not	P0-170 (0xaa) 0xaa
171	½	One Half	P0-171 (0xab) 0xab
172	¼	One Quarter	P0-172 (0xac) 0xac
173	¡	Inverted Exclamation Sign	P0-173 (0xad) 0xad
174	«	Left Angle Quotes	P0-174 (0xae) 0xae
175	»	Right Angle Quotes	P0-175 (0xaf) 0xaf
176	▤	Quarter Hashed	P0-176 (0xb0) 0xb0
177	▥	Half Hashed	P0-177 (0xb1) 0xb1
178	▧	Full Hashed	P0-178 (0xb2) 0xb2
179		Vertical Bar	P0-179 (0xb3) 0xb3

Figure 1-4 (Part 4 of 7). Code Page P0

Position Number	Character	Code Page Code Point	Internal Code
180	┘	P0-180 (0xb4)	0xb4
181	Á	P0-181 (0xb5)	0xb5
182	Â	P0-182 (0xb6)	0xb6
183	Ã	P0-183 (0xb7)	0xb7
184	©	P0-184 (0xb8)	0xb8
185	≡	P0-185 (0xb9)	0xb9
186		P0-186 (0xba)	0xba
187	↗	P0-187 (0xbb)	0xbb
188	↘	P0-188 (0xbc)	0xbc
189	¢	P0-189 (0xbd)	0xbd
190	¥	P0-190 (0xbe)	0xbe
191	┘	P0-191 (0xbf)	0xbf
192	└	P0-192 (0xc0)	0xc0
193	├	P0-193 (0xc1)	0xc1
194	┤	P0-194 (0xc2)	0xc2
195	┘	P0-195 (0xc3)	0xc3
196	—	P0-196 (0xc4)	0xc4
197	†	P0-197 (0xc5)	0xc5
198	ã	P0-198 (0xc6)	0xc6
199	Ã	P0-199 (0xc7)	0xc7
200	└	P0-200 (0xc8)	0xc8
201	┘	P0-201 (0xc9)	0xc9
202	├	P0-202 (0xca)	0xca
203	┤	P0-203 (0xcb)	0xcb
204	┘	P0-204 (0xcc)	0xcc
205	—	P0-205 (0xcd)	0xcd
206	≡	P0-206 (0xce)	0xce
207	¤	P0-207 (0xcf)	0xcf
208	ð	P0-208 (0xd0)	0xd0
209	Ð	P0-209 (0xd1)	0xd1
210	Ê	P0-210 (0xd2)	0xd2
211	Ë	P0-211 (0xd3)	0xd3
212	Û	P0-212 (0xd4)	0xd4
213	ì	P0-213 (0xd5)	0xd5
214	Í	P0-214 (0xd6)	0xd6
215	Î	P0-215 (0xd7)	0xd7
216	Ï	P0-216 (0xd8)	0xd8

Figure 1-4 (Part 5 of 7). Code Page P0

Position Number	Character	Code Page Code Point	Internal Code
217	┘ Lower Right Corner Box	P0-217 (0xd9)	0xd9
218	└ Upper Left Corner Box	P0-218 (0xda)	0xda
219	■ Bright Character Cell	P0-219 (0xdb)	0xdb
220	▀ Bright Character Cell - Lower Half	P0-220 (0xdc)	0xdc
221	┆ Broken Vertical Bar	P0-221 (0xdd)	0xdd
222	İ i Grave Capital	P0-222 (0xde)	0xde
223	▄ Bright Character Cell - Upper Half	P0-223 (0xdf)	0xdf
224	Ó o Acute Capital	P0-224 (0xe0)	0xe0
225	ß s Sharp Small	P0-225 (0xe1)	0xe1
226	Ô o Circumflex Capital	P0-226 (0xe2)	0xe2
227	ò o grave capital	P0-227 (0xe3)	0xe3
228	õ o Tilde Small	P0-228 (0xe4)	0xe4
229	Õ o Tilde Capital	P0-229 (0xe5)	0xe5
230	μ Mu Small, Micro Symbol	P0-230 (0xe6)	0xe6
231	þ Thorn Icelandic Small	P0-231 (0xe7)	0xe7
232	Ð Thorn Icelandic Capital	P0-232 (0xe8)	0xe8
233	Ú u Acute Capital	P0-233 (0xe9)	0xe9
234	Û u Circumflex Capital	P0-234 (0xea)	0xea
235	Û u Grave Capital	P0-235 (0xeb)	0xeb
236	ý y Acute Small	P0-236 (0xec)	0xec
237	Ý y Acute Capital	P0-237 (0xed)	0xed
238	ˉ Overbar	P0-238 (0xee)	0xee
239	˘ Acute Accent	P0-239 (0xef)	0xef
240	– Syllable Hyphen	P0-240 (0xf0)	0xf0
241	± Plus Or Minus Sign	P0-241 (0xf1)	0xf1
242	= Double Underscore	P0-242 (0xf2)	0xf2
243	¼ Three Fourths	P0-243 (0xf3)	0xf3
244	¶ Paragraph Symbol	P0-244 (0xf4)	0xf4
245	§ Section Symbol	P0-245 (0xf5)	0xf5
246	÷ Division Sign	P0-246 (0xf6)	0xf6
247	¸ Cedilla Accent	P0-247 (0xf7)	0xf7
248	° Degree Symbol, Overcircle Accent	P0-248 (0xf8)	0xf8
249	¨ Umlaut Accent	P0-249 (0xf9)	0xf9
250	· Middle Dot, Product Dot	P0-250 (0xfa)	0xfa
251	<sup>1</sup> Superscript 1	P0-251 (0xfb)	0xfb
252	<sup>3</sup> Superscript 3	P0-252 (0xfc)	0xfc
253	<sup>2</sup> Superscript 2	P0-253 (0xfd)	0xfd

Figure 1-4 (Part 6 of 7). Code Page P0

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<b>Position Number</b>	<b>Character</b>	<b>Code Page Code Point</b>	<b>Internal Code</b>
254	▮ Vertical Solid Rectangle	P0-254 (0xfe)	0xfe
255	▯ Required Space	P0-255 (0xff)	0xff

**Figure 1-4 (Part 7 of 7). Code Page P0**

Position Number	Character	Code Page Code Point	Internal Code
256	• Spanish Middle Dot	P1-256 (0x20)	0x1fa0
257	☺ Smiling Face	P1-257 (0x21)	0x1fa1
258	☹ Dark Smiling Face	P1-258 (0x22)	0x1fa2
259	♥ Heart	P1-259 (0x23)	0x1fa3
260	♦ Diamond	P1-260 (0x24)	0x1fa4
261	♣ Club	P1-261 (0x25)	0x1fa5
262	♠ Spade	P1-262 (0x26)	0x1fa6
263	• Bullet	P1-263 (0x27)	0x1fa7
264	◼ Reverse Video Bullet	P1-264 (0x28)	0x1fa8
265	○ Circle	P1-265 (0x29)	0x1fa9
266	◼ Reverse Video Circle	P1-266 (0x2a)	0x1faa
267	♂ Male Symbol	P1-267 (0x2b)	0x1fab
268	♀ Female Symbol	P1-268 (0x2c)	0x1fac
269	♪ Eighth Note	P1-269 (0x2d)	0x1fad
270	♩ Sixteenth Note	P1-270 (0x2e)	0x1fae
271	☼ Sun	P1-271 (0x2f)	0x1faf
272	▶ Right Solid Triangle	P1-272 (0x30)	0x1fb0
273	◀ Left Solid Triangle	P1-273 (0x31)	0x1fb1
274	↕ Bidirectional Vertical Arrow	P1-274 (0x32)	0x1fb2
275	!! Double Exclamation Point	P1-275 (0x33)	0x1fb3
276	¶ Paragraph Symbol	P1-276 (0x34)	0x1fb4
277	§ Section symbol	P1-277 (0x35)	0x1fb5
278	▬ Horizontal Solid Rectangle	P1-278 (0x36)	0x1fb6
279	↕ Underlined Bidirectional Vertical Arrow	P1-279 (0x37)	0x1fb7
280	↑ Up Arrow	P1-280 (0x38)	0x1fb8
281	↓ Down Arrow	P1-281 (0x39)	0x1fb9
282	→ Right Arrow	P1-282 (0x3a)	0x1fba
283	← Left Arrow	P1-283 (0x3b)	0x1fbb
284	↯ Diagonally Flipped Logical Not	P1-284 (0x3c)	0x1fbc
285	↔ Bidirectional Horizontal Arrow	P1-285 (0x3c)	0x1fbd
286	▲ Solid Upward Triangle	P1-286 (0x3e)	0x1fbe
287	▼ Solid Downward Triangle	P1-287 (0x3f)	0x1fbf
288	ã a Tilde Small	P1-288 (0x40)	0x1fc0
289	ß s Sharp Small	P1-289 (0x41)	0x1fc1
290	Â a Circumflex Capital	P1-290 (0x42)	0x1fc2
291	À a Grave Capital	P1-291 (0x43)	0x1fc3
292	Á a Acute Capital	P1-292 (0x44)	0x1fc4

Figure 1-5 (Part 1 of 7). Code Page P1

Position Number	Character	Code Page Code Point	Internal Code
293	Ã a Tilde Capital	P1-293 (0x45)	0x1fc5
294	ø o Slash Small	P1-294 (0x46)	0x1fc6
295	Ê e Circumflex Capital	P1-295 (0x47)	0x1fc7
296	Ë e Umlaut Capital	P1-296 (0x48)	0x1fc8
297	Ë e Grave Capital	P1-297 (0x49)	0x1fc9
298	Í i Acute Capital	P1-298 (0x4a)	0x1fca
299	Î i Circumflex Capital	P1-299 (0x4b)	0x1fcb
300	Ï i Umlaut Capital	P1-300 (0x4c)	0x1fcc
301	Ï i Grave Capital	P1-301 (0x4d)	0x1fcd
302	Ø Slashed o Capital	P1-302 (0x4e)	0x1fce
303	ð eth Icelandic Small	P1-303 (0x4f)	0x1fcf
304	ý y Acute Small	P1-304 (0x50)	0x1fd0
305	þ Thorn Icelandic Small	P1-305 (0x51)	0x1fd1
306	¸ Cedilla Accent	P1-306 (0x52)	0x1fd2
307	¤ International Currency Symbol	P1-307 (0x53)	0x1fd3
308	Ð eth Icelandic Capital	P1-308 (0x54)	0x1fd4
309	Ý y Acute Capital	P1-309 (0x55)	0x1fd5
310	Þ Thorn Icelandic Capital	P1-310 (0x56)	0x1fd6
311	® Registered Trademark Symbol	P1-311 (0x57)	0x1fd7
312	¾ Three Quarters	P1-312 (0x58)	0x1fd8
313	¯ Overbar Accent, Macron Accent	P1-313 (0x59)	0x1fd9
314	¨ Umlaut Accent	P1-314 (0x5a)	0x1fda
315	´ Acute Accent	P1-315 (0x5b)	0x1fdb
316	= Double Underscore	P1-316 (0x5c)	0x1fdc
317	õ o Tilde Small	P1-317 (0x5d)	0x1fdd
318	ı Small i Dotless	P1-318 (0x5e)	0x1fde
319	Ô o Circumflex Capital	P1-319 (0x5f)	0x1fdf
320	Ò o Grave Capital	P1-320 (0x60)	0x1fe0
321	Ó o Acute Capital	P1-321 (0x61)	0x1fe1
322	Õ o Tilde Capital	P1-322 (0x62)	0x1fe2
323	<sup>3</sup> Superscript 3	P1-323 (0x63)	0x1fe3
324	Û u Circumflex Capital	P1-324 (0x64)	0x1fe4
325	Û u Grave Capital	P1-325 (0x65)	0x1fe5
326	Ú u Acute Capital	P1-326 (0x66)	0x1fe6
327	ą a Ogonek Small	P1-327 (0x67)	0x1fe7
328	ě e Caron Small	P1-328 (0x68)	0x1fe8
329	č c Caron Small	P1-329 (0x69)	0x1fe9

Figure 1-5 (Part 2 of 7). Code Page P1



Position Number	Character	Code Page Code Point	Internal Code
330	c'	P1-330 (0x6a)	0x1fea
331	e	P1-331 (0x6b)	0x1feb
332	u	P1-332 (0x6c)	0x1fec
333	d	P1-333 (0x6d)	0x1fed
334	l	P1-334 (0x6e)	0x1fee
335	A	P1-335 (0x6f)	0x1fef
336	E	P1-336 (0x70)	0x1ff0
337	C	P1-337 (0x71)	0x1ff1
338	C	P1-338 (0x72)	0x1ff2
339	Caron Accent	P1-339 (0x73)	0x1ff3
340	e	P1-340 (0x74)	0x1ff4
341	u	P1-341 (0x75)	0x1ff5
342	D	P1-342 (0x76)	0x1ff6
343	l	P1-343 (0x77)	0x1ff7
344	l	P1-344 (0x78)	0x1ff8
345	n	P1-345 (0x79)	0x1ff9
346	d	P1-346 (0x7a)	0x1ffa
347	r	P1-347 (0x7b)	0x1ffb
348	s	P1-348 (0x7c)	0x1ffc
349	Overcircle Accent	P1-349 (0x7d)	0x1ffd
350	l	P1-350 (0x7e)	0x1ffe
351	n	P1-351 (0x7f)	0x1fff
352	s	P1-352 (0x80)	0x1e80
353	l	P1-353 (0x81)	0x1e81
354	n	P1-354 (0x82)	0x1e82
355	r	P1-355 (0x83)	0x1e83
356	s	P1-356 (0x84)	0x1e84
357	Overdot Accent	P1-357 (0x85)	0x1e85
358	z	P1-358 (0x86)	0x1e86
359	U	P1-359 (0x87)	0x1e87
360	Z	P1-360 (0x88)	0x1e88
361	z	P1-361 (0x89)	0x1e89
362	z	P1-362 (0x8a)	0x1e8a
363	Z	P1-363 (0x8b)	0x1e8b
364	Z	P1-364 (0x8c)	0x1e8c
365	L	P1-365 (0x8d)	0x1e8d
366	N	P1-366 (0x8e)	0x1e8e

Figure 1-5 (Part 3 of 7). Code Page P1

Position Number	Character	Code Page Code Point	Internal Code
367	Š s Caron Capital	P1-367 (0x8f)	0x1e8f
368	š s Caron Small	P1-368 (0x90)	0x1e90
369	ř r Acute Small	P1-369 (0x91)	0x1e91
370	š o Double Acute Small	P1-370 (0x92)	0x1e92
371	š u Double Acute Small	P1-371 (0x93)	0x1e93
372	Š t Caron Capital	P1-372 (0x94)	0x1e94
373	Š r Acute Capital	P1-373 (0x95)	0x1e95
374	Š o Double Acute Capital	P1-374 (0x96)	0x1e96
375	Š u Double Acute Capital	P1-375 (0x97)	0x1e97
376	á a Breve Small	P1-376 (0x98)	0x1e98
377	á g Breve Small	P1-377 (0x99)	0x1e99
378	ı i Overdot Capital	P1-378 (0x9a)	0x1e9a
379	á a Breve Capital	P1-379 (0x9b)	0x1e9b
380	á g Breve Capital	P1-380 (0x9c)	0x1e9c
381	˘ Breve Accent	P1-381 (0x9d)	0x1e9d
382	˝ Double Acute Accent	P1-382 (0x9e)	0x1e9e
383	š s Cedilla Small	P1-383 (0x9f)	0x1e9f
384	ℓ Liter Symbol	P1-384 (0xa0)	0x1ea0
385	ˆn High Comma n Small	P1-385 (0xa1)	0x1ea1
386	Š s Cedilla Capital	P1-386 (0xa2)	0x1ea2
387	ˆ Macron Accent	P1-387 (0xa3)	0x1ea3
388	š t Cedilla Small	P1-388 (0xa4)	0x1ea4
389	Š t Cedilla Capital	P1-389 (0xa5)	0x1ea5
390	á a Macron Small	P1-390 (0xa6)	0x1ea6
391	Á a Macron Capital	P1-391 (0xa7)	0x1ea7
392	ç c Circumflex Small	P1-392 (0xa8)	0x1ea8
393	Ç c Circumflex Capital	P1-393 (0xa9)	0x1ea9
394	⁄ High Reverse Solidus	P1-394 (0xaa)	0x1eaa
395	č c Overdot Small	P1-396 (0xab)	0x1eab
396	Č c Overdot Capital	P1-396 (0xac)	0x1eac
397	č e Overdot Small	P1-397 (0xad)	0x1ead
398	Č e Overdot Capital	P1-398 (0xae)	0x1eae
399	ē e Macron Small	P1-399 (0xaf)	0x1eaf
400	Ē e Macron Capital	P1-400 (0xb0)	0x1eb0
401	g g Acute Small	P1-401 (0xb1)	0x1eb1
402	g g Circumflex Small	P1-402 (0xb2)	0x1eb2
403	Ĝ g Circumflex Capital	P1-403 (0xb3)	0x1eb3

Figure 1-5 (Part 4 of 7). Code Page P1

Position Number	Character	Code Page Code Point	Internal Code
404	ġ	P1-404 (0xb4)	0x1eb4
405	Ġ	P1-405 (0xb5)	0x1eb5
406	G̣	P1-406 (0xb6)	0x1eb6
407	ĥ	P1-407 (0xb7)	0x1eb7
408	Ĥ	P1-408 (0xb8)	0x1eb8
409	h̄	P1-409 (0xb9)	0x1eb9
410	H̄	P1-410 (0xba)	0x1eba
411	i̇	P1-411 (0xbb)	0x1ebb
412	İ	P1-412 (0xbc)	0x1ebc
413	ị	P1-413 (0xbd)	0x1ebd
414	Ị	P1-414 (0xbe)	0x1ebe
415	ị̇	P1-415 (0xbf)	0x1ebf
416	Ị̇	P1-416 (0xc0)	0x1ec0
417	ij̣	P1-417 (0xc1)	0x1ec1
418	IJ̣	P1-418 (0xc2)	0x1ec2
419	ĵ	P1-419 (0xc3)	0x1ec3
420	Ĵ	P1-420 (0xc4)	0x1ec4
421	ḳ	P1-421 (0xc5)	0x1ec5
422	Ḳ	P1-422 (0xc6)	0x1ec6
423	κ̣	P1-423 (0xc7)	0x1ec7
424	ḷ	P1-424 (0xc8)	0x1ec8
425	Ḷ	P1-425 (0xc9)	0x1ec9
426	ḷ̇	P1-426 (0xca)	0x1eca
427	Ḷ̇	P1-427 (0xcb)	0x1ecb
428	ṇ̃	P1-428 (0xcc)	0x1ecc
429	Ṇ̃	P1-429 (0xcd)	0x1ecd
430	ŋ̣	P1-430 (0xce)	0x1ece
431	Ŋ̣	P1-431 (0xcf)	0x1ecf
432	ọ̇	P1-432 (0xd0)	0x1ed0
433	Ọ̇	P1-433 (0xd1)	0x1ed1
434	œ̣	P1-434 (0xd2)	0x1ed2
435	Œ̣	P1-435 (0xd3)	0x1ed3
436	ṛ	P1-436 (0xd4)	0x1ed4
437	Ṛ	P1-437 (0xd5)	0x1ed5
438	ŝ	P1-438 (0xd6)	0x1ed6
439	Ŝ	P1-439 (0xd7)	0x1ed7
440	†	P1-440 (0xd8)	0x1ed8

Figure 1-5 (Part 5 of 7). Code Page P1

Position Number	Character	Code Page Code Point	Internal Code
441	ƒ	P1-441 (0xd9)	0x1ed9
442	ũ	P1-442 (0xda)	0x1eda
443	Ů	P1-443 (0xdb)	0x1edb
444	ů	P1-444 (0xdc)	0x1edc
445	Ů	P1-445 (0xdd)	0x1edd
446	ů	P1-446 (0xde)	0x1ede
447	Ů	P1-447 (0xdf)	0x1edf
448	u	P1-448 (0xe0)	0x1ee0
449	Ů	P1-449 (0xe1)	0x1ee1
450	ŵ	P1-450 (0xe2)	0x1ee2
451	Ŵ	P1-451 (0xe3)	0x1ee3
452	ŷ	P1-452 (0xe4)	0x1ee4
453	Ÿ	P1-453 (0xe5)	0x1ee5
454	Ÿ	P1-454 (0xe6)	0x1ee6
455	©	P1-455 (0xe7)	0x1ee7
456	¹	P1-456 (0xe8)	0x1ee8
457	™	P1-457 (0xe9)	0x1ee9
458	⅛	P1-458 (0xea)	0x1eea
459	⅜	P1-459 (0xeb)	0x1eeb
460	⅝	P1-460 (0xec)	0x1eec
461	⅞	P1-461 (0xed)	0x1eed
462	×	P1-462 (0xee)	0x1eee
463	’	P1-463 (0xef)	0x1eef
464	“	P1-464 (0xf0)	0x1ef0
465	”	P1-465 (0xf1)	0x1ef1
466	=	P1-466 (0xf2)	0x1ef2
467	-	P1-467 (0xf3)	0x1ef3
468	+	P1-468 (0xf4)	0x1ef4
469	∞	P1-469 (0xf5)	0x1ef5
470	π	P1-470 (0xf6)	0x1ef6
471	Δ	P1-471 (0xf7)	0x1ef7
472	→	P1-472 (0xf8)	0x1ef8
473	/	P1-473 (0xf9)	0x1ef9
474	†	P1-474 (0xfa)	0x1efa
475	<	P1-475 (0xfb)	0x1efb
476	>	P1-476 (0xfc)	0x1efc
477	℞	P1-477 (0xfd)	0x1efd

Figure 1-5 (Part 6 of 7). Code Page P1

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<b>Position Number</b>	<b>Character</b>	<b>Code Page Code Point</b>	<b>Internal Code</b>
478	̄ 'Is Not An Element' Symbol	P1-478 (0xfe)	0x1efe
479	∴ 'Therefore' Symbol	P1-479 (0xff)	0x1eff

**Figure 1-5 (Part 7 of 7). Code Page P1**

Position Number	Character	Code Page Code Point	Internal Code
480	↗	P2-480 (0x20)	0x1da0
481	↘	P2-481 (0x21)	0x1da1
482	‡	P2-482 (0x22)	0x1da2
483	≠	P2-483 (0x23)	0x1da3
484	∨	P2-484 (0x24)	0x1da4
485	^	P2-485 (0x25)	0x1da5
486	∥	P2-486 (0x26)	0x1da6
487	∟	P2-487 (0x27)	0x1da7
488	<	P2-488 (0x28)	0x1da8
489	>	P2-489 (0x29)	0x1da9
490	±	P2-490 (0x2a)	0x1daa
491	◻	P2-491 (0x2b)	0x1dab
492	′	P2-492 (0x2c)	0x1dac
493	∫	P2-493 (0x2d)	0x1dad
494	∪	P2-494 (0x2e)	0x1dae
495	⊂	P2-495 (0x2f)	0x1daf
496	⊃	P2-496 (0x30)	0x1db0
497	⊕	P2-497 (0x31)	0x1db1
498	⊥	P2-498 (0x32)	0x1db2
499	⊗	P2-499 (0x33)	0x1db3
500	″	P2-500 (0x34)	0x1db4
501	≡	P2-501 (0x35)	0x1db5
502	ψ	P2-502 (0x36)	0x1db6
503	ε	P2-503 (0x37)	0x1db7
504	λ	P2-504 (0x38)	0x1db8
505	η	P2-505 (0x39)	0x1db9
506	ι	P2-506 (0x3a)	0x1dba
507	⌈	P2-507 (0x3b)	0x1dbb
508	⌋	P2-508 (0x3c)	0x1dbc
509	‰	P2-509 (0x3d)	0x1dbd
510	θ	P2-510 (0x3e)	0x1dbe
511	κ	P2-511 (0x3f)	0x1dbf
512	ω	P2-512 (0x40)	0x1dc0
513	ν	P2-513 (0x41)	0x1dc1
514	ο	P2-514 (0x42)	0x1dc2
515	ρ	P2-515 (0x43)	0x1dc3
516	γ	P2-516 (0x44)	0x1dc4

Figure 1-6 (Part 1 of 4). Code Page P2

Position Number	Character	Code Page Code Point	Internal Code
517	ϑ	P2-517 (0x45)	0x1dc5
518	)	P2-518 (0x46)	0x1dc6
519	)	P2-519 (0x47)	0x1dc7
520	≅	P2-520 (0x48)	0x1dc8
521	ξ	P2-521 (0x49)	0x1dc9
522	χ	P2-522 (0x4a)	0x1dca
523	υ	P2-523 (0x4b)	0x1dcb
524	ζ	P2-524 (0x4c)	0x1dcc
525	⌋	P2-525 (0x4d)	0x1dcd
526	⌌	P2-526 (0x4e)	0x1dce
527	0	P2-527 (0x4f)	0x1dcf
528	1	P2-528 (0x50)	0x1dd0
529	2	P2-529 (0x51)	0x1dd1
530	3	P2-530 (0x52)	0x1dd2
531	4	P2-531 (0x53)	0x1dd3
532	5	P2-532 (0x54)	0x1dd4
533	6	P2-533 (0x55)	0x1dd5
534	7	P2-534 (0x56)	0x1dd6
535	8	P2-535 (0x57)	0x1dd7
536	9	P2-536 (0x58)	0x1dd8
537	⊥	P2-536 (0x59)	0x1dd9
538	∅	P2-537 (0x5a)	0x1dda
539	Ψ	P2-538 (0x5b)	0x1ddb
540	Π	P2-539 (0x5c)	0x1ddc
541	Λ	P2-541 (0x5d)	0x1ddd
542	●	P2-542 (0x5e)	0x1dde
543	␣	P2-543 (0x5f)	0x1ddf
544	∂	P2-544 (0x60)	0x1de0
545	~	P2-545 (0x61)	0x1de1
546	□	P2-546 (0x62)	0x1de2
547	■	P2-547 (0x63)	0x1de3
548	▣	P2-548 (0x64)	0x1de4
549	∑	P2-549 (0x65)	0x1de5
550	∑	P2-550 (0x66)	0x1de6
551	Ξ	P2-551 (0x67)	0x1de7
552	∝	P2-552 (0x68)	0x1de8
553	Δ	P2-553 (0x69)	0x1de9

Figure 1-6 (Part 2 of 4). Code Page P2

Position Number	Character	Code Page Code Point	Internal Code
554	Υ	P2-554 (0x6a)	0x1dea
555	~	P2-555 (0x6b)	0x1deb
556	~	P2-556 (0x6c)	0x1dec
557	<sup>0</sup>	P2-557 (0x6d)	0x1ded
558	<sup>4</sup>	P2-558 (0x6e)	0x1dee
559	<sup>5</sup>	P2-559 (0x6f)	0x1def
560	<sup>6</sup>	P2-560 (0x70)	0x1df0
561	<sup>7</sup>	P2-561 (0x71)	0x1df1
562	<sup>8</sup>	P2-562 (0x72)	0x1df2
563	<sup>9</sup>	P2-563 (0x73)	0x1df3
564	Ø	P2-564 (0x74)	0x1df4
565	℞	P2-565 (0x75)	0x1df5
566	⌋	P2-566 (0x76)	0x1df6
567	⌋	P2-567 (0x77)	0x1df7
568	⌋	P2-568 (0x78)	0x1df8
569	⌋	P2-569 (0x79)	0x1df9
570	⌋	P2-570 (0x7a)	0x1dfa
571	⌋	P2-571 (0x7b)	0x1dfb
572	⌋	P2-572 (0x7c)	0x1dfc
573	⌋	P2-573 (0x7d)	0x1dfd
574	⌋	P2-574 (0x7e)	0x1dfe
575	⌋	P2-575 (0x7f)	0x1dff
576	⌋	P2-576 (0x80)	0x1c80
577	⌋	P2-577 (0x81)	0x1c81
578	⌋	P2-578 (0x82)	0x1c82
579	⌋	P2-579 (0x83)	0x1c83
580	⌋	P2-580 (0x84)	0x1c84
581	⌋	P2-581 (0x85)	0x1c85
582	⌋	P2-582 (0x86)	0x1c86
583	⌋	P2-583 (0x87)	0x1c87
584	■	P2-585 (0x88)	0x1c88
585	■	P2-585 (0x89)	0x3c89
586	α	P2-586 (0x8a)	0x1c8a
587	β	P2-587 (0x8b)	0x1c8b
588	Γ	P2-588 (0x8c)	0x1c8c
589	π	P2-589 (0x8d)	0x1c8d
590	Σ	P2-590 (0x8e)	0x1c8e

Figure 1-6 (Part 3 of 4). Code Page P2



Position Number	Character	Code Page Code Point	Internal Code
591	$\sigma$ Sigma Small	P2-591 (0x8f)	0x1c8f
592	$\tau$ Tau Small	P2-592 (0x90)	0x1c90
593	$\Phi$ Phi Capital	P2-593 (0x91)	0x1c91
594	$\Theta$ Theta Capital	P2-594 (0x92)	0x1c92
595	$\Omega$ Omega Capital/Ohm Sign	P2-595 (0x93)	0x1c93
596	$\delta$ Delta Small	P2-596 (0x94)	0x1c94
597	$\infty$ Infinity	P2-597 (0x95)	0x1c95
598	$\phi$ Phi Small	P2-598 (0x96)	0x1c96
599	$\in$ 'Is An Element Of' Symbol	P2-599 (0x97)	0x1c97
600	$\cap$ Intersection	P2-600 (0x98)	0x1c98
601	$\equiv$ Identity Symbol	P2-601 (0x99)	0x1c99
602	$\geq$ 'Greater Than or Equal To' Symbol	P2-602 (0x9a)	0x1c9a
603	$\leq$ 'Less Than or Equal To' Symbol	P2-603 (0x9b)	0x1c9b
604	$\int$ Upper Integral Section	P2-604 (0x9c)	0x1c9c
605	$\int$ Lower Integral Section	P2-605 (0x9d)	0x1c9d
606	$\approx$ Double Equivalent	P2-606 (0x9e)	0x1c9e
607	$\circ$ Solid Overcircle	P2-607 (0x9f)	0x1c9f
608	$\sqrt{\quad}$ Radical Symbol, Square Root	P2-608 (0xa0)	0x1ca0
609	$\equiv$ Top Side Middle - Double Vertical	P2-609 (0xa1)	0x1ca1
610	$\overset{n}{\quad}$ Superscript n	P2-610 (0xa2)	0x1ca2
611	$\quad$ Numeric Space	P2-611 (0xa3)	0x1ca3
612	$\text{\textcircled{\quad}}$ Center Line	P2-612 (0xa4)	0x1ca4
613	$\square$ Counter Bore	P2-613 (0xa5)	0x1ca5
614	$\sphericalangle$ Counter Sink	P2-614 (0xa6)	0x1ca6
615	$\nabla$ Depth	P2-615 (0xa7)	0x1ca7
616	$\varnothing$ Diameter	P2-616 (0xa8)	0x1ca8

Figure 1-6 (Part 4 of 4). Code Page P2

A display used by the Coprocessor may not show the characters you expect to see for the following reasons:

- The characters used by the program running on the Coprocessor are not available with that particular display. You may see blanks or substitute characters instead.
- The characters used by the program running on the Coprocessor may not be available to the Coprocessor itself.

Characters that are not available to the Coprocessor itself are translated into RT PC characters. See the following table for a list of these characters.

Position Number		RT Code Page		AT Code Page
155	ø	o Slash Small	¢	Cent Sign
157	Ø	o Slash Capital	¥	Yen Sign
158	×	Multiplication Sign	₣	Peseta Sign
169	®	Registered Trademark	¬	Flipped Logical Not
181	Á	a Acute Capital	⇒	Right Side Middle - Double Horizontal
182	â	a Circumflex Capital	⇓	Right Side Middle - Double Vertical
183	À	a Grave Capital	⌋	Upper Right Corner Box - Double Vertical
184	©	Copyright Symbol	⇨	Upper Right Corner Box - Double Horizontal
189	¢	Cent Sign	⌋	Lower Right Corner Box - Double Vertical
190	¥	Yen Sign	⇨	Lower Right Corner Box - Double Horizontal
198	ã	a Tilde Small	⇨	Left Side Middle - Double Horizontal
199	Ã	a Tilde Capital	⇨	Left Side Middle - Double Vertical
207	₯	International Currency Symbol	⇨	Bottom Side Middle - Double Horizontal

Figure 1-7 (Part 1 of 3). Differences Between the IBM RT PC and IBM AT PC Code Page

Position Number		RT Code Page		AT Code Page
208	ð	eth Icelandic Small	⌋	Bottom Side Middle - Double Vertical
209	Ð	eth Icelandic Capital	⌋	Top Side Middle - Double Horizontal
210	Ê	e Circumflex Capital	⌋	Top Side Middle - Double Vertical
211	Ë	e Umlaut Capital	⌋	Lower Left Corner Box - Double Vertical
212	È	e Grave Capital	⌋	Lower Left Corner Box - Double Horizontal
213	ı	Small i Dotless	⌋	Upper Left Corner Box - Double Horizontal
214	Í	i Acute Capital	⌋	Lower Left Corner Box - Double Horizontal
215	Î	i Circumflex Capital	⌋	Intersection - Double Vertical
216	Ï	i Umlaut Capital	⌋	Intersection - Double Horizontal
217	⌋	Lower Right Corner Box		
221	ı	Broken Vertical Bar	■	Bright Character Cell - Left Half
222	İ	i Grave Capital	■	Bright Character Cell - Right Half
224	Ó	o Acute Capital	α	Alpha Small
225	β	s Sharp Small	β	Beta Small
226	Ô	o Circumflex Capital	Γ	Gamma Capital
227	Ò	o grave capital	π	Phi Small
228	õ	o Tilde Small	Σ	Sigma Capital/Summation Symbol

Figure 1-7 (Part 2 of 3). Differences Between the IBM RT PC and IBM AT PC Code Page

Position Number		RT Code Page		AT Code Page
229	Ö	o Tilde Capital	σ	Sigma Small
231	þ	Thorn Icelandic Small	τ	Tau Small
232	Ð	Thorn Icelandic Capital	Φ	Phi Capital
233	Ú	u Acute Capital	Θ	Theta Capital
234	Û	u Circumflex Capital	Ω	Omega Capital/Ohm Symbol
235	Ü	u Grave Capital	δ	Delta Small
236	ý	y Acute Small	∞	Infinity
237	Ý	y Acute Capital	π	Pi Small
238	¯	Overbar	ε	'Is An Element Of' Symbol
239	'	Acute Accent	∩	Intersection
240	-	Syllable Hyphen	≡	Identity Symbol
242	=	Double Underscore	>	'Greater Than or Equal To' Symbol
243	¾	Three Fourths	<	'Less Than or Equal To' Symbol
244	¶	Paragraph Symbol	∫	Upper Integral Section
245	§	Section Symbol	∫	Lower Integral Section
247	¸	Cedilla Accent	≈	Double Equivalent
249	¨	Umlaut Accent	•	Solid Overcircle
251	<sup>1</sup>	Superscript 1	√	Radical Symbol, Square Root
252	<sup>3</sup>	Superscript 3	η	Superscript N

Figure 1-7 (Part 3 of 3). Differences Between the IBM RT PC and IBM AT PC Code Page

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## Keyboard Overview

The following keyboards are available on the RT PC:

- Belgian-French/Dutch
- Canadian-French
- Danish
- Finnish/Swedish
- French
- German
- Italian
- Japanese
- Norwegian
- Portuguese
- Spanish
- Swiss-French/German
- UK English
- US English

With the exception of the US English keyboard and the Japanese keyboard, all keyboards have 102 keys. The US English keyboard has 101 keys, and the Japanese keyboard has 106 keys. The differences in the keyboards occur because each country requires a specific set of graphic characters (*character set*) for the native language as well as a specific keyboard layout (*graphic key arrangement*) on the keyboard.

Keyboard tables are shipped with the Virtual Resource Manager (VRM), and a keyboard table is installed during VRM installation. The US English keyboard mapping is the default keyboard mapping until a different keyboard, such as the German keyboard, is installed. Refer to *IBM RT PC Installing and Customizing the AIX Operating System* for the procedure to install the keyboard specific to your country.

The keyboard position code layouts are given in the following section.

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## Keyboard Position Codes

The figures on the following pages give the key position codes for each of the three keyboards.

### 101-Key US English Keyboard

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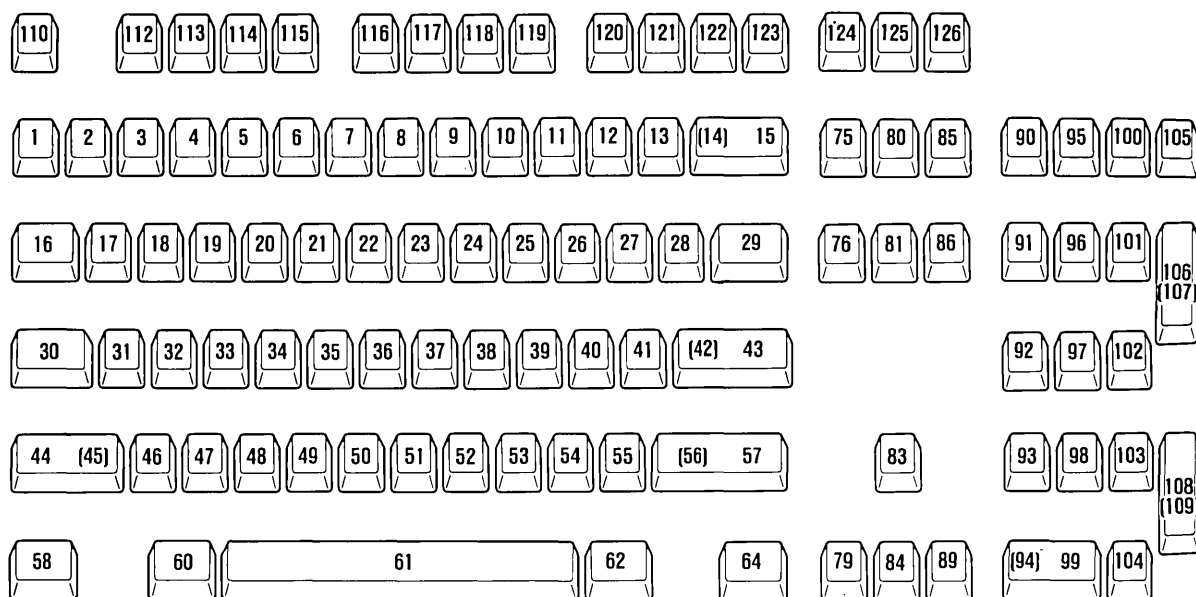


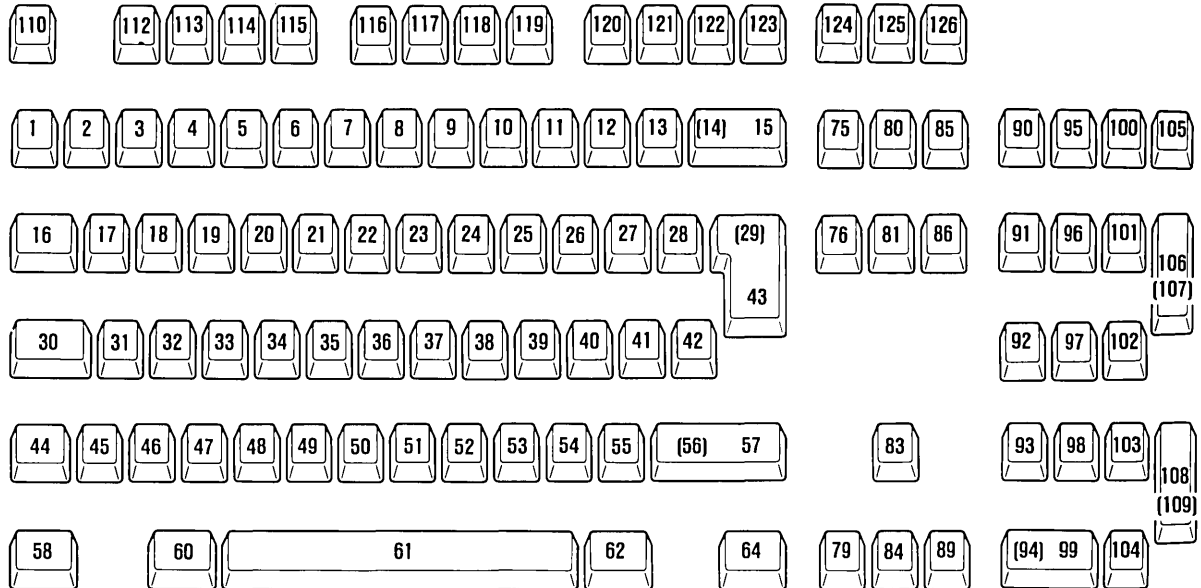
Figure 1-8. 101-Key US English Keyboard Position Codes

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## 102-Key Keyboard

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**Figure 1-9. 102-Key Keyboard Position Codes**

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## 106-Key Japanese Keyboard

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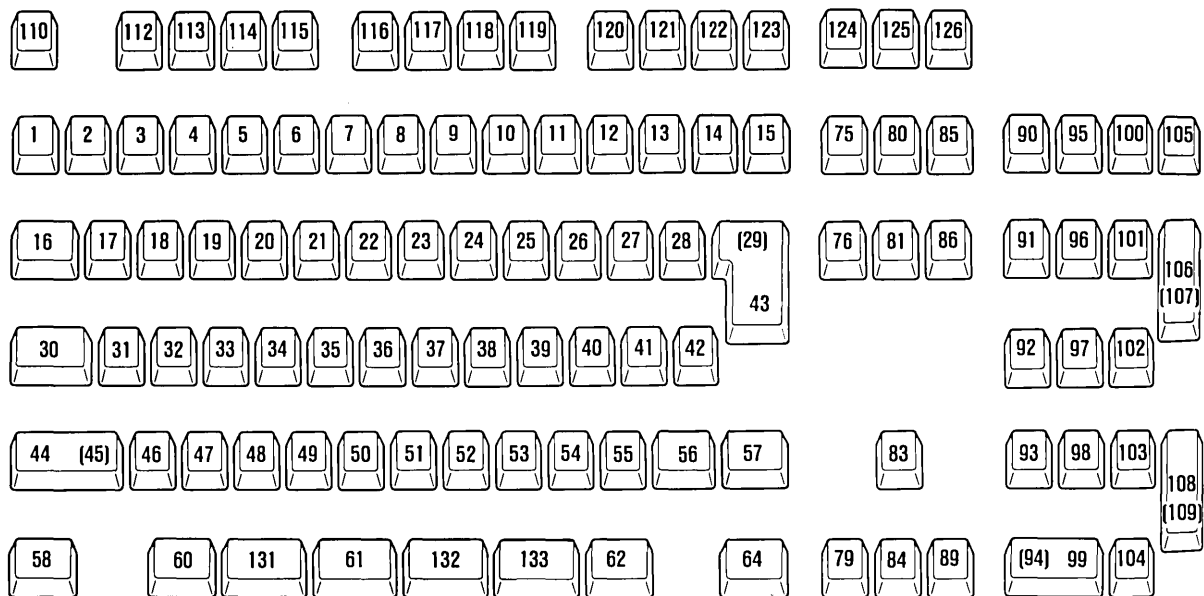


Figure 1-10. 106-Key Japanese Keyboard Position Codes

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## Keyboard States

Each key on the keyboard has five potential states:

- Base
- Shift
- Ctrl (control)
- Alt (alternate)
- AltGr (alternate graphic).

For the US 101-key keyboard, the AltGr state is identical to the Alt state; therefore, this keyboard gives the appearance of having only four states (Base, Shift, Ctrl, and Alt). In addition, some of these keys are also governed by the **Caps Lock** key or the **Shift Lock** key.

For those keyboards that support **Caps Lock**, **Caps Lock** affects only those keys whose Shift state yields the uppercase character (A, B, C . . . ) of the Base state lower case character (a, b, c . . . ) of the key. For those keyboards that support **Shift Lock**, **Shift Lock** has the same affect as pressing a key while the **Shift** key is pressed.

The Japanese keyboard does not have an **AltGr** key; only the right **Alt** key is available. This keyboard has four states: Base, Shift, Control, and Alt.

Refer to Appendix B, “Differences Between the 101-, 102-, and 106-Key Keyboards” on page B-1 for specific differences in the physical keyboard arrangements. Also, the illustrations and tables in Appendix D, “Belgian-French/Dutch Keyboard Layout and Table” on page D-1 through Appendix R, “US English Keyboard Layout and Table” on page R-1 give you details of the keyboard layouts, and tables containing such information as key character assignments, the keyboard definition for each key state, the effect of the **Caps Lock** key, and so on.

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## Overview of Nonspacing Characters

Among the 571 graphic characters available in RT PC, 13 diacritics are used to construct diacritical (accented) characters. The constructed diacritical characters yield a set of characters over and above those engraved on any specific country-dependent keyboard.

A *nonspacing character sequence* is defined as a two-key sequence consisting of one of the thirteen diacritics followed by an alphabetic character.

### Valid Nonspacing Character Sequences

Valid nonspacing character sequences are restricted to combinations of diacritical characters and alphabetic characters listed in “Accented Characters” on page 1-41. When the Virtual Terminal Mode Processor is running in translate mode, valid nonspacing character sequences are always folded into a single character within a code page among P0, P1, or P2 prior to passing the keyboard input to the application.

A special case exists when the nonspacing character sequence consists of a diacritic followed by a space. In this case, the diacritic character itself is displayed or sent to the application.

### Invalid Nonspacing Character Sequences

If the nonspacing character sequence is invalid (does not conform to the description given for valid nonspacing character sequences) the VTMP passes the *nonspacing character* to the application followed by the second character of the sequence. Invalid nonspacing character sequences include sequences which:

- Start with a nonspacing character but are followed by an alphabetic character such that the resulting diacritical character does not exist in the system,  
or
- Start with a nonspacing character but are followed by a non-alphabetic character (numeric, control, function key),  
or
- Start with a nonspacing character but are followed by another nonspacing character.

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## Suspended Nonspacing Character Sequences

Suspended nonspacing character sequences occur when the active virtual terminal becomes inactive after a nonspacing character sequence is started but before the sequence completes. In the case of a suspended nonspacing character sequence, the VTMP continues nonspacing character processing after the virtual terminal reactivates. Nonspacing character processing continues using the rules for valid or invalid nonspacing character sequences depending on which keys are pressed. The following pages give you specific examples of nonspacing character processing.

## Nonspacing Character Processing Examples

A valid nonspacing character sequence causes a single accented character to be returned. A nonspacing character followed by a space character is a valid nonspacing character sequence, and returns the accent itself as a single character. For example:

<b>1st Key Pressed</b>	<b>2nd Key Pressed</b>	<b>Returned</b>
Grave `	e	è e Grave (0x8a) – 1 character
Grave `	Space	` Grave Accent (0x60) – 1 character

An invalid nonspacing character sequence causes the accent character to be returned, followed by the code for the key pressed after the nonspacing key.

<b>1st Key Pressed</b>	<b>2nd Key Pressed</b>	<b>Returned</b>
Grave `	z	` Grave Accent (0x60) – 2 characters z (0x7a)
Acute ´	PF1	´ Acute Accent (0xef) – 1 character PF1 (0x1b5b00000171)

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An invalid nonspacing character sequence (*nonspacing character - nonspacing character*) causes the first nonspacing character of the sequence to be passed to the application and the next nonspacing character starts a new nonspacing character sequence.

1st Key Pressed	2nd Key Pressed	3rd Key Pressed	Returned
Grave `	Acute ´	e	` Grave Accent (0x60) ´ e Acute (0x82) – 2 characters

When the virtual terminal is deactivated (either through user action or by the system) immediately after a nonspacing character is pressed, then reactivation of the virtual terminal causes processing to continue using either the rule for valid nonspacing character sequences or the rule for invalid nonspacing character sequences, as appropriate. Note that the nonspacing character is not forgotten. For example:

1. A user presses the ` (*Grave Accent*) nonspacing character, then presses **Window**. Nothing is returned, the virtual terminal is deactivated, and another task is done. When the user returns, the virtual terminal is reactivated, the nonspacing character is *remembered*, so that when the user then presses the e, an è (*e Grave*) character is returned. For example:

1st Key Pressed	2nd Key Pressed	Returned
Grave `	e	è e Grave (0x8a) – 1 character

- 
2. A user presses the ' (*Acute Accent*) nonspacing character, but before the user can complete the sequence a system message is presented. The virtual terminal is deactivated. When the virtual terminal is reactivated, the fact that an ' (*Acute Accent*) nonspacing character was pressed is remembered by the VTMP. If the user forgot that he already pressed a nonspacing character, and presses it again, followed by *e*, then two characters ' (*Acute Accent*) and *é* (*e Acute*) are returned. If the user remembers that he had pressed a nonspacing character and immediately on return presses *e*, then one character is returned *é* (*e Acute*). For example:

1st Key Pressed	2nd Key Pressed	3rd Key Pressed	Returned
Acute '	Acute '	e	Acute Accent ' (0xef) é e Acute (0x82) – 2 characters
Acute '	e		é e Acute (0x82) – 1 character

---

## Accented Characters

The following tables show the valid set of characters for each of the diacritics that the VTMP uses to validate the two-key nonspacing character sequence.

### Acute Accented Characters

'	Acute Accent	P0-0xef
'	Apostrophe (Acute)	P0-0x27
é	e Acute Small	P0-0x82
É	e Acute Capital	P0-0x90
á	a Acute Small	P0-0xa0
í	i Acute Small	P0-0xa1
ó	o Acute Small	P0-0xa2
ú	u Acute Small	P0-0xa3
Á	a Acute Capital	P0-0xb5
Í	i Acute Capital	P0-0xd6
ý	y Acute Small	P0-0xec
Ý	y Acute Capital	P0-0xed
Ó	o Acute Capital	P0-0xe0
Û	u Acute Capital	P0-0xe9
ć	c Acute Small	P1-0x6a
ł	l Acute Small	P1-0x6e
Ć	c Acute Capital	P1-0x72

---

### Acute Accented Characters

Ł	l Acute Capital	P1-0x77
ś	s Acute Small	P1-0x7c
ń	n Acute Small	P1-0x7f
Ś	s Acute Capital	P1-0x84
ź	z Acute Small	P1-0x8a
Ź	z Acute Capital	P1-0x8c
ŕ	r Acute Small	P1-0x91
Ŕ	r Acute Capital	P1-0x95
ġ	g Acute Small	P1-0xb1

---

### Grave Accented Characters

`	Grave Accent	P0-0x60
à	a Grave Small	P0-0x85
è	e Grave Small	P0-0x8a
ì	i Grave Small	P0-0x8d
ò	o Grave Small	P0-0x95
ù	u Grave Small	P0-0x97
À	a Grave Capital	P0-0xb7
È	e Grave Capital	P0-0xd4
Ì	i Grave Capital	P0-0xde
Ò	o Grave Capital	P0-0xe3
Ù	u Grave Capital	P0-0xeb



---

## Circumflex Accented Characters

^	Circumflex Accent	P0-0x5e
â	a Circumflex Small	P0-0x83
ê	e Circumflex Small	P0-0x88
î	i Circumflex Small	P0-0x8c
ô	o Circumflex Small	P0-0x93
û	u Circumflex Small	P0-0x96
Â	a Circumflex Capital	P0-0xb6
Ê	e Circumflex Capital	P0-0xd2
Î	i Circumflex Capital	P0-0xd7
Ô	o Circumflex Capital	P0-0xe2
Û	u Circumflex Capital	P0-0xea
ç	c Circumflex Small	P1-0xa8
Ç	c Circumflex Capital	P1-0xa9
ç	g Circumflex Small	P1-0xb2
Ç	g Circumflex Capital	P1-0xb3
h	h Circumflex Small	P1-0xb7
H	h Circumflex Capital	P1-0xb8
ï	j Circumflex Small	P1-0xc3
Ï	j Circumflex Capital	P1-0xc4
ș	s Circumflex Small	P1-0xd6
Ș	s Circumflex Capital	P1-0xd7
ŵ	w Circumflex Small	P1-0xe2
Ŵ	w Circumflex Capital	P1-0xe3
ÿ	y Circumflex Small	P1-0xe4
ÿ	y Circumflex Capital	P1-0xe5

---

### Umlaut Accented Characters

¨	Umlaut Accent	P0-0xf9
Û	u Umlaut Capital	P0-0x9a
ü	u Umlaut Small	P0-0x81
ä	a Umlaut Small	P0-0x84
ë	e Umlaut Small	P0-0x89
ï	i Umlaut Small	P0-0x8b
Ä	a Umlaut Capital	P0-0x8e
ö	o Umlaut Small	P1-0x94
ÿ	y Umlaut Small	P1-0x98
Ö	O Umlaut Capital	P0-0x99
Û	u Umlaut Capital	P0-0x99
Ë	e Umlaut Capital	P0-0xd3
Ï	i Umlaut Capital	P0-0xd8
Ÿ	y Umlaut Capital	P1-0xe6

### Tilde Accented Characters

˜	Tilde Accent	P0-0x7e
ñ	n Tilde Small	P0-0xa4
Ñ	n Tilde Capital	P0-0xa5
ã	a Tilde Small	P0-0xc6
Ã	a Tilde Capital	P0-0xc7
õ	o Tilde Small	P0-0xe4
Õ	o Tilde Capital	P0-0xe5
ï	i Tilde Small	P1-0xbb
Ï	i Tilde Capital	P1-0xbc
ũ	u Tilde Small	P1-0xda
Ū	u Tilde Capital	P1-0xdb

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### Caron Accented Characters

V	Caron Accent	P1-0x73
v	e Caron Small	P1-0x68
v	n Caron Small	P1-0x69
v	d Caron Small	P1-0x6d
v	e Caron Capital	P1-0x70
v	c Caron Capital	P1-0x71
v	d Caron Capital	P1-0x76
v	l Caron Small	P1-0x78
v	n Caron Small	P1-0x79
v	r Caron Small	P1-0x7b
v	s Caron Small	P1-0x80
v	l Caron Capital	P1-0x81
v	n Caron Capital	P1-0x82
v	r Caron Capital	P1-0x83
v	z Caron Small	P1-0x89
v	z Caron Capital	P1-0x8b
v	s Caron Capital	P1-0x8f
v	t Caron Small	P1-0x90
T	t Caron Capital	P1-0x94

### Breve Accented Characters

˘	Breve Accent	P1-0x9d
a	a Breve Small	P1-0x98
a	g Breve Small	P1-0x99
A	a Breve Capital	P1-0x9b
G	g Breve Capital	P1-0x9c
u	u Breve Small	P1-0xdc
U	u Breve Capital	P1-0xdd

---

### Double Acute Accented Characters

"	Double Acute Accent	P1-0x9e
ó	o Double Acute Small	P1-0x92
ú	u Double Acute Small	P1-0x93
Ó	o Double Acute Capital	P1-0x96
Ú	Double Acute Capital	P1-0x97

### Overcircle Accented Characters

°	Overcircle Accent	P1-0x7d
◌◌	a Overcircle Small	P0-0x86
◌◌	a Overcircle Capital	P0-0x8f
◌◌	u Overcircle Small	P1-0x6c
◌◌	u Overcircle Capital	P1-0x75

### Overdot Accented Characters

•	Overdot Accent	P1-0x85
ẏ	z Overdot Small	P1-0x86
Ẑ	z Overdot Capital	P1-0x88
ï	i Overdot Capital	P1-0x9a
č	c Overdot Small	P1-0xab
Č	c Overdot Capital	P1-0xac
ë	e Overdot Small	P1-0xad
Ě	e Overdot Capital	P1-0xae
ğ	g Overdot Small	P1-0xb4
Ğ	g Overdot Capital	P1-0xb5

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### Macron Accented Characters

ˉ	Macron Accent	P1-0xa3
ā	a Macron Small	P1-0xa6
Ā	a Macron Capital	P1-0xa7
ē	e Macron Small	P1-0xaf
Ē	e Macron Capital	P1-0xb0
ī	i Macron Small	P1-0xbd
Ī	i Macron Capital	P1-0xbe
ō	o Macron Small	P1-0xd0
Ō	o Macron Capital	P1-0xd1
ū	u Macron Small	P1-0xde
Ū	u Macron Capital	P1-0xdf

### Cedilla Accented Characters

¸	Cedilla Accent	P0-0xf7
Ç	c Cedilla Capital	P0-0x80
ç	c Cedilla Small	P0-0x87
ş	s Cedilla Small	P1-0x9f
Ş	s Cedilla Capital	P1-0xa2
ţ	t Cedilla Small	P1-0xa4
Ț	t Cedilla Capital	P1-0xa5
Ğ	g Cedilla Capital	P1-0xb6
ğ	k Cedilla Small	P1-0xc5
Ķ	k Cedilla Capital	P1-0xc6
ļ	l Cedilla Small	P1-0xc8
Ļ	l Cedilla Capital	P1-0xc9
ņ	n Cedilla Small	P1-0xcc
Ņ	n Cedilla Capital	P1-0xcd
ŗ	r Cedilla Small	P1-0xd4
Ŗ	r Cedilla Capital	P1-0xd5

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### Ogonek Accented Characters

ć	Ogonek Accent	P1-0x87
ą	a Ogonek Small	P1-0x67
ę	e Ogonek Small	P1-0x6b
Ą	a Ogonek Capital	P1-0x6f
Ę	e Ogonek Capital	P1-0x74
ĩ	i Ogonek Small	P1-0xbf
Ĳ	i Ogonek Capital	P1-0xc0
ů	u Ogonek Small	P1-0xe0
Ů	u Ogonek Capital	P1-0xe1



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## Part 2. Appendices





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## Appendix A. Keyboard Scan Codes

This appendix contains the keyboard scan codes for the three RT PC international character keyboards.

Each key on the keyboard is assigned a unique 8-bit scan code which is sent when the key is pressed. Refer to the keyboard layouts in “101-Key US English Keyboard” on page 1-33, “102-Key Keyboard” on page 1-34, and “106-Key Japanese Keyboard” on page 1-35, and to the keyboard position codes in Appendix D, “Belgian-French/Dutch Keyboard Layout and Table” on page D-1 through Appendix R, “US English Keyboard Layout and Table” on page R-1.

<b>Key Positions and Their Scan Codes</b>					
1 - 0x0e	23 - 0x3c	45 - N/A	67 - N/A	89 - 0x6a	111 - N/A
2 - 0x16	24 - 0x43	46 - 0x1a	68 - N/A	90 - 0x76	112 - 0x07
3 - 0x1e	25 - 0x44	47 - 0x22	69 - N/A	91 - 0x6c	113 - 0x0f
4 - 0x26	26 - 0x4d	48 - 0x21	70 - N/A	92 - 0x6b	114 - 0x17
5 - 0x25	27 - 0x54	49 - 0x2a	71 - N/A	93 - 0x69	115 - 0x1f
6 - 0x2e	28 - 0x5b	50 - 0x32	72 - N/A	94 - N/A	116 - 0x27
7 - 0x36	29 - 0x5c	51 - 0x31	73 - N/A	95 - 0x77	117 - 0x2f
8 - 0x3d	30 - 0x14	52 - 0x3a	74 - N/A	96 - 0x75	118 - 0x37
9 - 0x3e	31 - 0x1c	53 - 0x41	75 - 0x67	97 - 0x73	119 - 0x3f
10 - 0x46	32 - 0x1b	54 - 0x49	76 - 0x64	98 - 0x72	120 - 0x47
11 - 0x45	33 - 0x23	55 - 0x4a	77 - N/A	99 - 0x70	121 - 0x4f
12 - 0x4e	34 - 0x2b	56 - N/A	78 - N/A	100 - 0x7e	122 - 0x56
13 - 0x55	35 - 0x34	57 - 0x59	79 - 0x61	101 - 0x7d	123 - 0x5e
14 - N/A	36 - 0x33	58 - 0x11	80 - 0x6e	102 - 0x74	124 - 0x57
15 - 0x66	37 - 0x3b	59 - N/A	81 - 0x65	103 - 0x7a	125 - 0x5f
16 - 0x0d	38 - 0x42	60 - 0x19	82 - N/A	104 - 0x71	126 - 0x62
17 - 0x15	39 - 0x4b	61 - 0x29	83 - 0x63	105 - 0x84	127 - N/A
18 - 0x1d	40 - 0x4c	62 - 0x39	84 - 0x60	106 - 0x7c	128 - N/A
19 - 0x24	41 - 0x52	63 - N/A	85 - 0x6f	107 - N/A	129 - N/A
20 - 0x2d	42 - N/A	64 - 0x58	86 - 0x6d	108 - 0x79	130 - N/A
21 - 0x2c	43 - 0x5a	65 - N/A	87 - N/A	109 - N/A	131 - 0x20
22 - 0x35	44 - 0x12	66 - N/A	88 - N/A	110 - 0x08	132 - 0x28
					133 - 0x30

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## Appendix B. Differences Between the 101-, 102-, and 106-Key Keyboards

This appendix details the differences between the physical keyboard layouts for the 101-, 102-, and 106-key keyboards.

### Differences Between The 101- and 102-Key Keyboards

The differences between the 101-key (United States) and the 102-key keyboards include the following:

- The US 101-key keyboard has a double wide **Carrier Return (Enter)** key (position codes 42 and 43) and generates position code 43 when pressed.
- The US 101-key keyboard left **Shift** key (position codes 44 and 45) is twice as wide as the 102-key keyboard left **Shift** key and generates position code 44 when pressed.
- The 102-key keyboard **Carrier Return (Enter)** key (position codes 29 and 43) is twice as high as the US **Carrier Return** key, and generates position code 43 when pressed.
- The 102-key keyboard left **Shift** key (position code 44) generates position code 44 when pressed and, therefore, position 45 is labeled.
- Position code 42, which is suppressed on the US 101-key keyboard, is available for assignment and is labeled on the 102-key keyboard.
- Position code 29, which is available in the US 101-key keyboard is suppressed on the 102-key keyboard.
- For some countries, besides having an additional key in the physical keyboard arrangement, *nonspacing characters* are also defined. These nonspacing characters are used in a two-key sequence to construct accented characters. The nonspacing characters, called *diacritics*, are national characters, such as acute accent, grave accent, and circumflex accent.

The 101- and 102-key keyboards are shown on Figure 1-8 on page 1-33 and Figure 1-9 on page 1-34.

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## Differences Between The 101- and 106-Key Keyboards

The main differences between the US 101-key keyboard and the Japanese 106-key keyboard are:

- The US **Caps Lock** key (key position 30) becomes the Katakana **Shift** key.
- The left **Alt** key (key 60) becomes the alphameric shift key on the Japanese keyboard. The Base, Shift, and Ctrl states of this key are ignored.
- The Caps Lock function is moved to the Alt state of the alphameric **Shift** key (key position 60). It functions in the normal fashion.
- The space bar is divided into several additional keys (key positions 131, 61, 132, and 133). Key position 61 is the space, and returns the same scan code as the US 101-key keyboard. Key positions 131, 132, and 133 are for the Phonetic to Kanji Conversion (PKC) and are ignored.
- Key position 29 is included with the **Enter** key (key 43).
- Key positions 14, 42, and 56 are available.
- Some of the key positions from key position 1 to key position 64 are different.

The 101- and 106-key keyboards are shown on Figure 1-8 on page 1-33 and Figure 1-10 on page 1-35.

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## Appendix C. Processing Examples

This appendix contains examples of the default and nondefault output and input processing examples. You can find these examples on the following pages:

- “Examples of Default Input Processing” on page C-2
- “Examples of Nondefault Input Processing” on page C-6
- “Examples of Default Output Processing” on page C-8
- “Examples of Nondefault Processing Examples” on page C-11.

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## Input Processing Examples

The headings in the input examples have the following meanings:

- **XLATE(P0)** – Keyboard translation table entry for Code Page P0.
- **XLATE(P1)** – Keyboard translation table entry for Code Page P1.
- **XLATE(P2)** – Keyboard translation table entry for Code Page P2.
- **KEYPAD** – Entry made from the numeric keypad (Alt-Num).
- **KEYPAD/CTL** – Entry made from the numeric keypad or Ctrl state.
- **RETURNED** – Value(s) returned to the application.
- **ECHOED** – Character echoed to the display.

### Examples of Default Input Processing

Assume the following default conditions for the input examples:

- Default keyboard translation table entries.
- G0 is the active display character set.
- G0 is set to Code Page P0.

**Example 1.1.** The keyboard translate table contains 0x41 for Code Page P0. When the key corresponding to this keyboard translation table entry is pressed, the VTMP sends 0x41 to the application and causes the *A (a Capital)* to be echoed to the display.

<b>XLATE(P0)</b>	<b>RETURNED</b>	<b>ECHOED</b>
0x41	0x41	A a Capital

**Example 1.2.** The keyboard translate table contains 0x80 for Code Page P0. When the key corresponding to this keyboard translation table entry is pressed, the VTMP sends 0x80 to the application and causes the *Ç (c Cedilla Capital)* to be echoed to the display.

<b>XLATE(P0)</b>	<b>RETURNED</b>	<b>ECHOED</b>
0x80	0x80	Ç c Cedilla Capital

---

**Example 1.3.** The keyboard translate table contains 0x41 for Code Page P1. When the key corresponding to this keyboard translation table entry is pressed, the VTMP sends 0x1fc1 to the application and causes the  $\beta$  (*s Sharp*) to be echoed to the display.

<b>XLATE(P1)</b>	<b>RETURNED</b>	<b>ECHOED</b>
0x41	0x1fc1	$\beta$ s Sharp

**Example 1.4.** The keyboard translate table contains 0x80 for Code Page P1. When the key corresponding to this keyboard translation table entry is pressed, the VTMP sends 0x1e80 to the application and causes the  $\check{s}$  (*s Caron Small*) to be echoed to the display.

<b>XLATE(P1)</b>	<b>RETURNED</b>	<b>ECHOED</b>
0x80	0x1e80	$\check{s}$ s Caron Small

**Example 1.5.** The keyboard translate table contains 0x41 for Code Page P2. When the key corresponding to this keyboard translation table entry is pressed, the VTMP sends 0x1dc1 to the application and causes the  $\nu$  (*Nu Small*) to be echoed to the display.

<b>XLATE(P2)</b>	<b>RETURNED</b>	<b>ECHOED</b>
0x41	0x1dc1	$\nu$ Nu Small

**Example 1.6.** The keyboard translate table contains 0x80 for Code Page P2. When the key corresponding to this keyboard translation table entry is pressed, the VTMP sends 0x1c80 to the application and causes the *Bottom Side Middle – Double Vertical (BSM - DV)* to be echoed to the display.

<b>XLATE(P2)</b>	<b>RETURNED</b>	<b>ECHOED</b>
0x80	0x1c80	BSM - DV



---

**Note:** Characters not assigned to any one key on the keyboard can be input from the numeric keypad or the Ctrl state. To input a character using these methods, enter the keys corresponding to the **Internal Code** for the character as found in Figure 1-4 on page 1-11, Figure 1-5 on page 1-18, or Figure 1-6 on page 1-25. The hexadecimal value shown in the **Internal Code** column must be converted and keyed in as a decimal value when using the numeric keypad.

**Example 1.7.** The value 0x41 is entered from the numeric keypad. Since this value is not preceded by a single shift control, the 0x41 is sent to the application and the active graphic character set (P0) is used to display the character.

<b>KEYPAD</b>	<b>RETURNED</b>	<b>ECHOED</b>
0x41	0x41	A a Capital

**Example 1.8.** The value 0x1f (SS1) is entered from the numeric keypad or the Ctrl state. Then the value 0xc1 is entered from the numeric keypad. The 0x41 index into the Code Page P1 display symbols is used to display the character.

<b>KEYPAD/CTL</b>	<b>RETURNED</b>	<b>ECHOED</b>	<b>ECHOED</b>
0x1f	0xc1	0x1fc1	β s Sharp

**Example 1.9.** The value 0x1e (SS2) is entered from the numeric keypad or the Ctrl state. Then the value 0xc1 is entered from the numeric keypad. The 0xc1 index into the Code Page P1 display symbols is used to display the character.

<b>KEYPAD/CTL</b>	<b>KEYPAD</b>	<b>RETURNED</b>	<b>ECHOED</b>
0x1e	0xc1	0x1ec1	ij ij Ligature Small

---

**Example 1.10.** The value 0x1d (SS3) is entered from the numeric keypad or the Ctrl state. Then the value 0xa0 is entered from the numeric keypad. The 0x20 index into the Code Page P2 display symbols is used to display the character.

<b>KEYPAD/CTL</b>	<b>KEYPAD</b>	<b>RETURNED</b>	<b>ECHOED</b>
0x1d	0xa0	0x1da0	↗ Increase

**Example 1.11.** The value 0x1c (SS4) is entered from the numeric keypad or the Ctrl state. Then the value 0xa0 is entered from the numeric keypad. The 0xa0 index into the Code Page P2 display symbols is used to display the character.

<b>KEYPAD/CTL</b>	<b>KEYPAD</b>	<b>RETURNED</b>	<b>ECHOED</b>
0x1c	0xa0	0x1ca0	√ Radical

---

## Examples of Nondefault Input Processing

For the following input examples, assume these conditions:

- Default keyboard translation table entries
- Set Graphic Set G1 to P1 followed by a shift out control
- G1 is the active display character set
- G1 is set to P1.

Please note that the character echoed for unprefixed code points is different than the default case. However, the character echoed for prefixed code points is the same as in the default case. A few examples of the characters that are the same as the default cases are included in the examples below.

**Example 2.1.** The keyboard translate table contains 0x41 for Code Page P0. When the key corresponding to this keyboard translation table entry is pressed, the VTMP sends 0x41 to the application and causes the  $\beta$  (*s Sharp*) to be echoed to the display because the active display set, G1, is set to P1.

<b>XLATE(P0)</b>	<b>KEYPAD</b>	<b>RETURNED</b>
0x41	0x41	$\beta$ s Sharp

**Example 2.2.** The keyboard translate table contains 0x80 for Code Page P0. When the key corresponding to this keyboard translation table entry is pressed, the VTMP sends 0x80 to the application and causes the  $\check{s}$  (*s Caron Small*) to be echoed to the display because the active display set, G1, is set to P1.

<b>XLATE(P0)</b>	<b>KEYPAD</b>	<b>RETURNED</b>
0x80	0x80	$\check{s}$ s Caron Small

**Example 2.3.** The keyboard translate table contains 0x41 for Code Page P1. When the key corresponding to this keyboard translation table entry is pressed, the VTMP sends 0x1fc1 to the application and causes the  $\beta$  (*s Sharp*) to be echoed to the display because the active display set, G1, is set to P1.

<b>XLATE(P1)</b>	<b>KEYPAD</b>	<b>RETURNED</b>
0x41	0x1fc1	$\beta$ s Sharp

The echoing of this symbol bypasses the active graphic display set and is not affected by the SG0/SG1 and shift in/shift out controls.

---

**Example 2.4.** The keyboard translate table contains 0x80 for Code Page P1. When the key corresponding to this keyboard translation table entry is pressed, the VTMP sends 0x1e80 to the application and causes the ſ (*s Caron Small*) to be echoed to the display.

<b>XLATE(P1)</b>	<b>KEYPAD</b>	<b>RETURNED</b>
0x80	0x1e80	ſ s Caron Small

The echoing of this symbol bypasses the active graphic display set and is not affected by the SG0/SG1 and shift in/shift out controls.

---

## Examples of Output Processing

The headings in the output examples have the following meaning:

- **OUTPUT\_BUFFER** – Character(s) in application output buffer.
- **DISPLAY** – Character shown on the display.

## Examples of Default Output Processing

For the following output examples, assume the default conditions:

- G0 is the active display character set
- G0 is set to P0.

**Example 3.1.** The unprefixed code point 0x41 is sent in the application display output data stream. Since G0 is the active display character set and is set to P0, *A (a Capital)* is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x41	A a Capital

**Example 3.2.** The unprefixed code point 0x80 is sent in the application display output data stream. Since G0 is the active display character set and is set to P0, *Ç (c Cedilla Capital)* is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x80	Ç c Cedilla Capital

**Example 3.3.** The SS1 prefixed code point 0xc1 is sent in the application display output data stream. This is a request to display a character from the left half of code page P1. The high-order bit of the 0xc1 is reset to produce 0x41. The character at the 0x41 offset into Code Page P1 is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1fc1	β s Sharp

---

**Example 3.4.** The SS2 prefixed code point 0x80 is sent in the application display output data stream. This is a request to display a character from the right half of Code Page P1. The high-order bit of this byte is not reset, 0x80 is used as an offset into Code Page P1 to select the character to be displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1e80	ŝ s Caron Small

**Example 3.5.** The SS3 prefixed code point 0xc1 is sent in the application display output data stream. This is a request to display a character from the left half of Code Page P2. The high-order bit of the 0xc1 is reset to produce 0x41. The character at the 0x41 offset into Code Page P2 is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1dc1	v Nu Small

**Example 3.6.** The SS4 prefixed code point 0x80 is sent in the application display output data stream. This is a request to display a character from the right half of Code Page P2. The high-order bit of this byte is not reset, 0x80 is used as an offset into Code Page P2 to select the character to be displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1c80	BSM -DV

**Example 3.7.** The single shift control, SS1, followed by 0x41, a code point in the range 0x00 – 0x7f (high-order bit reset). This is an invalid sequence. In this case the SS1 is ignored and the following code point is processed as an unprefixed code point. Since G0 is the active display character set and is set to P0, *A (a Capital)* is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1f41	A a Uppercase

---

**Example 3.8.** The single shift control, SS2, followed by 0x41, a code point in the range 0x00 – 0x7f (high-order bit reset). This is an invalid sequence. In this case the SS2 is ignored and the following code point is processed as an unprefixed code point. Since G0 is the active display character set and is set to P0, *A (a Capital)* is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1e41	A a Uppercase

**Example 3.9.** The single shift control, SS3, followed by 0x41, a code point in the range 0x00 – 0x7f (high-order bit reset). This is an invalid sequence. In this case the SS3 is ignored and the following code point is processed as an unprefixed code point. Since G0 is the active display character set and is set to P0, *A (a Capital)* is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1d41	A a Uppercase

**Example 3.10.** The single shift control, SS4, followed by 0x41, a code point in the range 0x00 – 0x7f (high-order bit reset). This is an invalid sequence. In this case the SS4 is ignored and the following code point is processed as an unprefixed code point. Since G0 is the active display character set and is set to P0, *A (a Capital)* is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1c41	A a Uppercase

---

## Examples of Nondefault Processing Examples

For the following output examples, assume these conditions:

- Set Graphic Set G1 to P1 followed by a shift out control
- G1 is the active display character set
- G1 is set to P1.

Please note that the character displayed for unprefixed code points is different than the default case. However, the character displayed for prefixed code points is the same as in the default case. A few examples of the characters that are the same as the default cases are included below.

**Example 4.1.** The unprefixed code point 0x41 is sent in the application display output data stream. Since G1 is the active display character set and is set to P1,  $\beta$  (*s Sharp*) is displayed.

OUTPUT_BUFFER	DISPLAY
0x41	$\beta$ s Sharp

**Example 4.2.** The unprefixed code point 0x80 is sent in the application display output data stream. Since G1 is the active display character set and is set to P1,  $\check{s}$  (*s Caron Small*) is displayed.

OUTPUT_BUFFER	DISPLAY
0x80	$\check{s}$ s Caron Small

**Example 4.3.** The SS1 prefixed code point 0xc1 is sent in the application display output data stream. This is a request to display a character from the left half of Code Page P1. The high-order bit of the 0xc1 is reset to produce 0x41. The character at the 0x41 offset into Code Page P1 is displayed.

OUTPUT_BUFFER	DISPLAY
0x1fc1	$\beta$ s Sharp



---

**Example 4.4.** The SS2 prefixed code point 0x80 is sent in the application display output data stream. This is a request to display a character from the right half of Code Page P1. The high-order bit of this byte is not reset, 0x80 is used as an offset into Code Page P1 to select the character to be displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1e80	š s Caron Small

**Example 4.5.** The SS3 prefixed code point 0xc1 is sent in the application display output data stream. This is a request to display a character from the left half of Code Page P2. The high-order bit of the 0xc1 is reset to produce 0x41. The character at the 0x41 offset into Code Page P2 is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1dc1	v Nu Small

**Example 4.6.** The SS4 prefixed code point 0x80 is sent in the application display output data stream. This is a request to display a character from the right half of Code Page P2. The high-order bit of this byte is not reset, 0x80 is used as an offset into Code Page P2 to select the character to be displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1c80	BSM - DV

**Example 4.7.** The single shift control, SS1, followed by 0x41, a code point in the range 0x00 – 0x7f (high-order bit reset). This is an invalid sequence. In this case, the SS1 is ignored and the following code point is processed as an unprefixed code point. Since G1 is the active display character set and is set to P1, β (*s Sharp*) is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1f41	β s Sharp

---

**Example 4.8.** The single shift control, SS2, followed by 0x41, a code point in the range 0x00 – 0x7f (high-order bit reset). This is an invalid sequence. In this case, the SS2 is ignored and the following code point is processed as an unprefixed code point. Since G1 is the active display character set and is set to P1,  $\beta$  (*s Sharp*) is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1e41	$\beta$ s Sharp

**Example 4.9.** The single shift control, SS3, followed by 0x41, a code point in the range 0x00 – 0x7f (high-order bit reset). This is an invalid sequence. In this case, the SS3 is ignored and the following code point is processed as an unprefixed code point. Since G1 is the active display character set and is set to P1,  $\beta$  (*s Sharp*) is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1d41	$\beta$ s Sharp

**Example 4.10.** The single shift control, SS4, followed by 0x41, a code point in the range 0x00 – 0x7f (high-order bit reset). This is an invalid sequence. In this case, the SS4 is ignored and the following code point is processed as an unprefixed code point. Since G1 is the active display character set and is set to P1,  $\beta$  (*s Sharp*) is displayed.

<b>OUTPUT_BUFFER</b>	<b>DISPLAY</b>
0x1c41	$\beta$ s Sharp



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## Part 3. Keyboard Tables



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## **Appendix D. Belgian-French/Dutch Keyboard Layout and Table**

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This appendix contains the keyboard layout and keyboard table information for the Belgian-French/Dutch keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

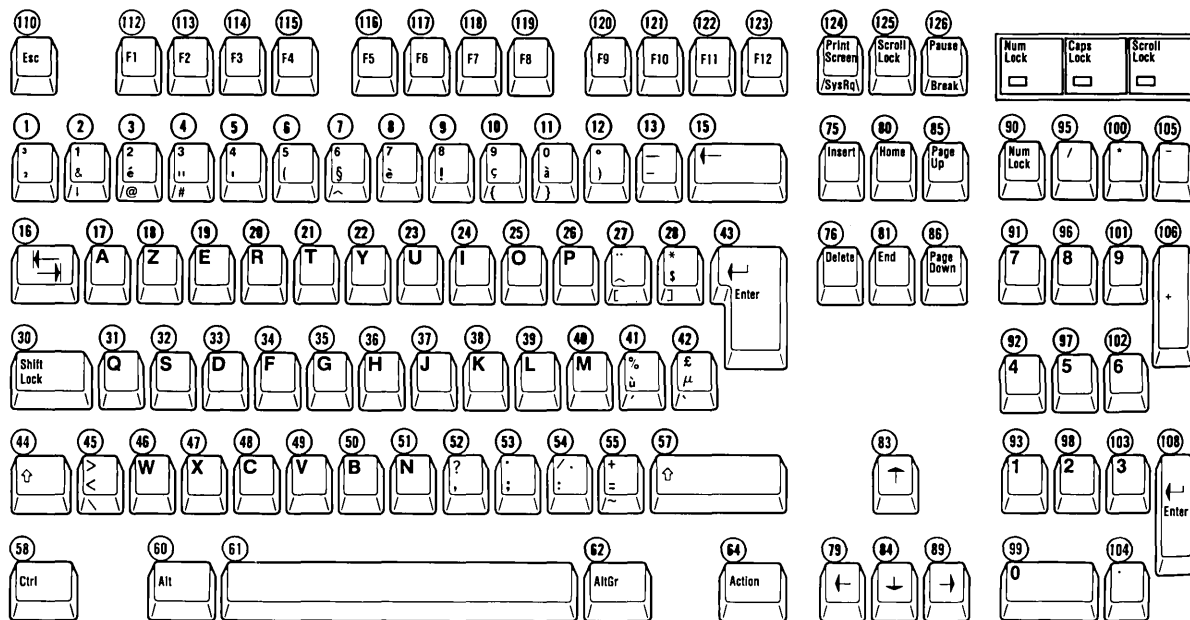
**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the **Alt** key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.



## Belgian-French/Dutch Keyboard Layout



## Belgian-French/Dutch Keyboard Table

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
1	Base	<sup>2</sup> Superscript 2	1 b c < 253	0xfd	CL
1	Shift	<sup>3</sup> Superscript 3	1 s c < 252	0xfc	
1	Ctrl	PFK 57	1 c f 0x39	ESC [ 0 5 7 q	
1	Alt	PFK 115	1 a f 0x73	ESC [ 1 1 5 q	
1	AltGr	Ignore	1 g f 0x1ff	Not Returned	
2	Base	& Ampersand	2 b c < 38	0x26	CL
2	Shift	1 One	2 s c < 49	0x31	
2	Ctrl	PFK 49	2 c f 0x31	ESC [ 0 4 9 q	
2	Alt	PFK 58	2 a f 0x3a	ESC [ 0 5 8 q	
2	AltGr	! Pipe Symbol	2 g c < 124	0x7c	
3	Base	é e Acute Small	3 b c < 130	0x82	CL
3	Shift	2 Two	3 s c < 50	0x32	
3	Ctrl	NUL Null	3 c c < 0	0x00	
3	Alt	PFK 59	3 a f 0x3b	ESC [ 0 5 9 q	
3	AltGr	@ At Sign	3 g c < 64	0x40	
4	Base	" Double Quote	4 b c < 34	0x22	CL
4	Shift	3 Three	4 s c < 51	0x33	
4	Ctrl	PFK 50	4 c f 0x32	ESC [ 0 5 0 q	
4	Alt	PFK 60	4 a f 0x3c	ESC [ 0 6 0 q	
4	AltGr	# Number Sign	4 g c < 39	0x23	
5	Base	' Quote/Apostrophe	5 b c < 39	0x27	CL
5	Shift	4 Four	5 s c < 52	0x34	
5	Ctrl	PFK 51	5 c f 0x33	ESC [ 0 5 1 q	
5	Alt	PFK 61	5 a f 0x3d	ESC [ 0 6 1 q	
5	AltGr	Ignore	5 g f 0x1ff	Not Returned	
6	Base	( Left Parenthesis	6 b c < 40	0x28	CL
6	Shift	5 Five	6 s c < 53	0x35	
6	Ctrl	PFK 52	6 c f 0x34	ESC [ 0 5 2 q	
6	Alt	PFK 62	6 a f 0x3e	ESC [ 0 6 2 q	
6	AltGr	Ignore	6 g f 0x1ff	Not Returned	
7	Base	§ Section Symbol	7 b c < 245	0xf5	CL

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
7	Shift	6	Six	7	s	c	< 54	0x36	
7	Ctrl	SS2	Single Shift 2	7	c	c	< 30	0x1e	
7	Alt	PFK	63	7	a	f	0x3f	ESC [ 0 6 3 q	
7	AltGr	^	Circumflex Accent	7	g	c	< 94	0x5e	
8	Base	è	e Grave Small	8	b	c	< 138	0x8a	CL
8	Shift	7	Seven	8	s	c	< 55	0x37	
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
8	AltGr	Ignore		8	g	f	0x1ff	Not Returned	
9	Base	!	Exclamation Point	9	b	c	< 33	0x21	CL
9	Shift	8	Eight	9	s	c	< 56	0x38	
9	Ctrl	PFK	54	9	c	f	0x36	ESC [ 0 5 4 q	
9	Alt	PFK	65	9	a	f	0x41	ESC [ 0 6 5 q	
9	AltGr	Ignore		9	g	f	0x1ff	Not Returned	
10	Base	ç	c Cedilla Small	10	b	c	< 135	0x87	CL
10	Shift	9	Nine	10	s	c	< 57	0x39	
10	Ctrl	PFK	55	10	c	f	0x37	ESC [ 0 5 5 q	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
10	AltGr	{	Left Brace	10	g	c	< 123	0x7b	
11	Base	à	a Grave Small	11	b	c	< 133	0x85	CL
11	Shift	0	Zero	11	s	c	< 48	0x30	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
11	AltGr	}	Right Brace	11	g	c	< 125	0x7d	
12	Base	)	Right Parenthesis	12	b	c	< 41	0x29	CL
12	Shift	°	Degree Symbol	12	s	c	< 248	0xf8	
12	Ctrl	PFK	69	12	c	f	0x45	ESC [ 0 6 9 q	
12	Alt	PFK	70	12	a	f	0x46	ESC [ 0 7 0 q	
12	AltGr	Ignore		12	g	f	0x1ff	Not Returned	
13	Base	-	Hyphen, Minus Sign	13	b	c	< 45	0x2d	CL
13	Shift	_	Underscore	13	s	c	< 95	0x5f	
13	Ctrl	SS1	Single Shift 1	13	c	c	< 31	0x1f	
13	Alt	PFK	68	13	a	f	0x46	ESC [ 0 6 8 q	
13	AltGr	Ignore		13	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
14		Not available on keyboard			
15	Base	BS	Back Space	15 b c < 8	0x08 CL
15	Shift	BS	Back Space	15 s c < 8	0x08
15	Ctrl	DEL	Delete	15 c c < 127	0x7f
15	Alt	PFK	71	15 a f 0x47	ESC [ 0 7 1 q
15	AltGr	Ignore		15 g f 0x1ff	Not Returned
16	Base	HT	Horizontal Tab	16 b c < 9	0x09 CL
16	Shift	CBT	Cursor Back Tab	16 s f 0x105	ESC [ Z
16	Ctrl	PFK	72	16 c f 0x48	ESC [ 0 7 2 q
16	Alt	PFK	73	16 a f 0x49	ESC [ 0 7 3 q
16	AltGr	Ignore		16 g f 0x1ff	Not Returned
17	Base	a	Lowercase a	17 b c < 97	0x61 CL
17	Shift	A	Uppercase a	17 s c < 65	0x41
17	Ctrl	SOH	Start of Header	17 c c < 1	0x01
17	Alt	PFK	87	17 a f 0x57	ESC [ 0 8 7 q
17	AltGr	Ignore		17 g f 0x1ff	Not Returned
18	Base	z	Lowercase z	18 b c < 122	0x7a CL
18	Shift	Z	Uppercase z	18 s c < 90	0x5a
18	Ctrl	SUB	Substitute Char.	18 c c < 26	0x1a
18	Alt	PFK	101	18 a f 0x65	ESC [ 1 0 1 q
18	AltGr	Ignore		18 g f 0x1ff	Not Returned
19	Base	e	Lowercase e	19 b c < 101	0x65 CL
19	Shift	E	Uppercase e	19 s c < 69	0x45
19	Ctrl	ENQ	Enquiry	19 c c < 5	0x05
19	Alt	PFK	76	19 a f 0x4c	ESC [ 0 7 6 q
19	AltGr	Ignore		19 g f 0x1ff	Not Returned
20	Base	r	Lowercase r	20 b c < 114	0x72 CL
20	Shift	R	Uppercase r	20 s c < 82	0x52
20	Ctrl	DC2	Device Control 2	20 c c < 18	0x12
20	Alt	PFK	77	20 a f 0x4d	ESC [ 0 7 7 q
20	AltGr	Ignore		20 g f 0x1ff	Not Returned
21	Base	t	Lowercase t	21 b c < 116	0x74 CL
21	Shift	T	Uppercase t	21 s c < 84	0x54
21	Ctrl	DC4	Device Control 4	21 c c < 20	0x14

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore		21	g	f	0x1ff	Not Returned	
22	Base	y	Lowercase y	22	b	c	< 121	0x79	CL
22	Shift	Y	Uppercase y	22	s	c	< 89	0x59	
22	Ctrl	EM	End of Media	22	c	c	< 25	0x19	
22	Alt	PFK	79	22	a	f	0x4f	ESC [ 0 7 9 q	
22	AltGr	Ignore		22	g	f	0x1ff	Not Returned	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore		23	g	f	0x1ff	Not Returned	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore		24	g	f	0x1ff	Not Returned	
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
25	AltGr	Ignore		25	g	f	0x1ff	Not Returned	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
26	AltGr	Ignore		26	g	f	0x1ff	Not Returned	
27	Base	^	Circumflex Accent	27	b	d	< 94	0x5e	CL/DK
27	Shift	¨	Diaeresis Accent	27	s	d	< 249	0xf9	DK
27	Ctrl	ESC	Escape	27	c	c	< 27	0x1b	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
27	AltGr	[	Left Bracket	27	g	c	< 91	0x5b	
28	Base	\$	Dollar Sign	28	b	c	< 36	0x24	CL
28	Shift	*	Asterisk	28	s	c	< 42	0x2a	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
28	Ctrl	SS3	Single Shift 3	28	c	c	< 29	0x1d	
28	Alt	PFK	85	28	a	f	0x55	ESC [ 0 8 5 q	
28	AltGr	]	Right Bracket	28	g	c	< 93	0x5d	
29	Not available on keyboard								
30	Base	Caps Lock		None				Not Returned	
30	Shift	Caps Lock		None				Not Returned	
30	Ctrl	Caps Lock		None				Not Returned	
30	Alt	Caps Lock		None				Not Returned	
30	AltGr	Caps Lock		None				Not Returned	
31	Base	q	Lowercase q	31	b	c	< 113	0x71	CL
31	Shift	Q	Uppercase q	31	s	c	< 81	0x51	
31	Ctrl	DC1	Device Control 1	31	c	c	< 17	0x11	
31	Alt	PFK	74	31	a	f	0x4a	ESC [ 0 7 4 q	
31	AltGr	Ignore		31	g	f	0x1ff	Not Returned	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK	88	32	a	f	0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore		32	g	f	0x1ff	Not Returned	
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK	89	33	a	f	0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore		33	g	f	0x1ff	Not Returned	
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK	90	34	a	f	0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore		34	g	f	0x1ff	Not Returned	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore		35	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK	92	36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK	93	37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK	94	38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK	95	39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	m	Lowercase m	40	b	c	< 109	0x6d	CL
40	Shift	M	Uppercase M	40	s	c	< 77	0x4d	
40	Ctrl	CR	Carriage Return	40	c	c	0x13	0x0d	
40	Alt	PFK	107	40	a	f	0x66	ESC [ 1 0 7 q	
40	AltGr	Ignore		40	g	f	0x1ff	Not Returned	
41	Base	ù	u Grave Small	41	b	c	< 151	0x97	CL
41	Shift	%	Percent Sign	41	s	c	< 37	0x25	
41	Ctrl	PFK	98	41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK	99	41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	'	Acute Accent	41	g	c	= 91	0x1fdb	
42	Base	μ	Greek Mu Small	42	b	c	< 230	0xe6	CL
42	Shift	£	Pounds Sterling	42	s	c	< 156	0x9c	
42	Ctrl	Ignore		42	c	f	0x1ff	Not Returned	
42	Alt	Ignore		42	a	f	0x1ff	Not Returned	
42	AltGr	`	Grave Accent	42	g	c	< 96	0x60	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK 100		43	a	f	0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore		43	g	f	0x1ff	Not Returned	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
44	AltGr	Shift (Left)		None				Not Returned	
45	Base	<	Less Than Sign	45	b	c	< 60	0x3c	CL
45	Shift	>	Greater Than Sign	45	s	c	< 62	0x3e	
45	Ctrl	SS4	Single Shift 4	45	c	c	< 28	0x1c	
45	Alt	PFK 86		45	a	c	0x56	ESC [ 0 8 6 q	
45	AltGr	\	Reverse Slash	45	g	c	< 92	0x5c	
46	Base	w	Lowercase w	46	b	c	< 119	0x77	CL
46	Shift	W	Uppercase w	46	s	c	< 87	0x57	
46	Ctrl	ETB	End Trans Block	46	c	c	< 23	0x17	
46	Alt	PFK 75		46	a	f	0x4b	ESC [ 0 7 5 q	
46	AltGr	Ignore		46	g	f	0x1ff	Not Returned	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK 102		47	a	f	0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore		47	g	f	0x1ff	Not Returned	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of text	48	c	c	< 3	0x03	
48	Alt	PFK 103		48	a	f	0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore		48	g	f	0x1ff	Not Returned	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK 104		49	a	f	0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore		49	g	f	0x1ff	Not Returned	



Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes	
				nnn	s	t			-----
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK 105		50	a	f	0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore		50	g	f	0x1ff	Not Returned	
51	Base	n	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK 106		51	a	f	0x6a	ESC [ 1 0 6 q	
51	AltGr	Ignore		51	g	f	0x1ff	Not Returned	
52	Base	,	Comma	52	b	c	< 44	0x2c	CL
52	Shift	?	Question Mark	52	s	c	< 63	0x3f	
52	Ctrl	PFK 96		52	c	f	0x60	ESC [ 0 9 6 q	
52	Alt	PFK 97		52	a	f	0x61	ESC [ 0 9 7 q	
52	AltGr	Ignore		52	g	f	0x1ff	Not Returned	
53	Base	;	Semicolon	59	b	c	< 59	0x3b	CL
53	Shift	.	Period	53	s	c	< 46	0x2e	
53	Ctrl	PFK 108		53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK 109		53	a	f	0x6d	ESC [ 1 0 9 q	
53	AltGr	Ignore		53	g	f	0x1ff	Not Returned	
54	Base	:	Colon	54	b	c	< 58	0x3a	CL
54	Shift	/	Slash	54	s	c	< 47	0x2f	
54	Ctrl	PFK 110		54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK 111		54	a	f	0x6f	ESC [ 1 1 1 q	
54	AltGr	Ignore		54	g	f	0x1ff	Not Returned	
55	Base	=	Equal Sign	55	b	c	< 61	0x3d	CL
55	Shift	+	Plus Sign	55	s	c	< 43	0x2b	
55	Ctrl	PFK 112		55	c	f	0x70	ESC [ 1 1 2 q	
55	Alt	PFK 113		55	a	f	0x71	ESC [ 1 1 3 q	
55	AltGr	~	Tilde Accent	55	t	d	< 126	0x7e	DK
56	Not available on keyboard								
57	Base	Shift (Right)		None			Not Returned		
57	Shift	Shift (Right)		None			Not Returned		
57	Ctrl	Shift (Right)		None			Not Returned		

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
57	Alt	Shift (Right)	None	Reserved for IBM 5080	
57	AltGr	Shift (Right)	None	Not Returned	
58	Base	Control	None	Not Returned	
58	Shift	Control	None	Not Returned	
58	Ctrl	Control	None	Not Returned	
58	Alt	Control	None	Not Returned	
58	AltGr	Control	None	Not Returned	
59	Not available on keyboard				
60	Base	Alternate Shift	None	Not Returned	
60	Shift	Alternate Shift	None	Not Returned	
60	Ctrl	Alternate Shift	None	Not Returned	
60	Alt	Alternate Shift	None	Not Returned	
60	AltGr	Alternate Shift	None	Not Returned	
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff	Not Returned	
62	Base	Alternate Graphic Shift	None	Not Returned	
62	Shift	Alternate Graphic Shift	None	Not Returned	
62	Ctrl	Alternate Graphic Shift	None	Not Returned	
62	Alt	Alternate Graphic Shift	None	Not Returned	
62	AltGr	Alternate Graphic Shift	None	Not Returned	
63	Not available on keyboard				
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None	VTRM Previous Window	
64	Ctrl	VTRM Windows Window	None	VTRM Windows Window	
64	Alt	VTRM Next Window	None	VTRM Next Window	
64	AltGr	VTRM Next Window	None	VTRM Next Window	
65 - 74	Not available on keyboard				
75	Base	PFK 139 INS Toggle	75 b f 0x8b	ESC [ 1 3 9 q	
75	Shift	PFK 139 INS Toggle	75 s f 0x8b	ESC [ 1 3 9 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q	
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q	
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned	
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P	
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P	
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q	
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M	
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned	
77	Not available on keyboard								
78	Not available on keyboard								
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D	
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q	
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q	
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q	
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned	
80	Base	HOME		80	b	f	0x108	ESC [ H	
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q	
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q	
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q	
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned	
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q	
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q	
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q	
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q	
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned	
82	Not available on keyboard								
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A	
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q	
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q	
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q	
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
84	Base	CUD Cursor Down	84 b f 0x102	ESC [ B	
84	Shift	PFK 164	84 s f 0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK 165	84 c f 0xa5	ESC [ 1 6 5 q	
84	Alt	PFK 166	84 a f 0xa6	ESC [ 1 6 6 q	
84	AltGr	Ignore	84 g f 0x1ff	Not Returned	
85	Base	PFK 150	85 b f 0x96	ESC [ 1 5 0 q	
85	Shift	PFK 151	85 s f 0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK 152	85 c f 0x98	ESC [ 1 5 2 q	
85	Alt	PFK 153	85 a f 0x99	ESC [ 1 5 3 q	
85	AltGr	Ignore	85 g f 0x1ff	Not Returned	
86	Base	PFK 154	86 b f 0x9a	ESC [ 1 5 4 q	
86	Shift	PFK 155	86 s f 0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK 156	86 c f 0x9c	ESC [ 1 5 6 q	
86	Alt	PFK 157	86 a f 0x9d	ESC [ 1 5 7 q	
86	AltGr	Ignore	86 g f 0x1ff	Not Returned	
87	Not available on keyboard				
88	Not available on keyboard				
89	Base	CUF Cursor Forward	89 b f 0x103	ESC [ C	
89	Shift	PFK 167	89 s f 0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK 168	89 c f 0xa8	ESC [ 1 6 8 q	
89	Alt	PFK 169	89 a f 0xa9	ESC [ 1 6 9 q	
89	AltGr	Ignore	89 g f 0x1ff	Not Returned	
90	Base	NUM LOCK	None	Not Returned	
90	Shift	NUM LOCK	None	Not Returned	
90	Ctrl	DC3 Device Control 3	90 c c < 19	0x13	
90	Alt	PFK 170	90 a f 0xaa	ESC [ 1 7 0 q	
90	AltGr	Ignore	90 g f 0x1ff	Not Returned	
91	Base	⌞ Upper Left Corner	91 b c < 218	0xda	
91	Shift	7 Seven	91 s c < 55	0x37	
91	Ctrl	PFK 172	91 c f 0xac	ESC [ 1 7 2 q	
91	Alt	Alt + Num Entry	None	Return at Alt break	
91	AltGr	Ignore	91 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
92	Base	┌	Left Edge Int.	92	b	c	< 195	0xc3	
92	Shift	4	Four	92	s	c	< 52	0x34	
92	Ctrl	PFK	174	92	c	f	0xae	ESC [ 1 7 4 q	
92	Alt	Alt + Num Entry		None					Return at Alt break
92	AltGr	Ignore		92	g	f	0x1ff		Not Returned
93	Base	└	Lower Left Corner	93	b	c	< 192	0xc0	
93	Shift	1	One	93	s	c	< 49	0x31	
93	Ctrl	PFK	176	93	c	f	0xb0	ESC [ 1 7 6 q	
93	Alt	Alt + Num Entry		None					Return at Alt break
93	AltGr	Ignore		93	g	f	0x1ff		Not Returned
94	Not available on keyboard								
95	Base	/	Slash	95	b	c	< 47	0x2f	
95	Shift	/	Slash	95	s	c	< 47	0x2f	
95	Ctrl	PFK	179	95	c	f	0xb3	ESC [ 1 7 9 q	
95	Alt	PFK	180	95	a	f	0xb4	ESC [ 1 8 0 q	
95	AltGr	Ignore		95	g	f	0x1ff		Not Returned
96	Base	┐	Top Edge Int.	96	b	c	< 194	0xc2	
96	Shift	8	Eight	96	s	c	< 56	0x38	
96	Ctrl	PFK	182	96	c	f	0xb6	ESC [ 1 8 2 q	
96	Alt	Alt + Num Entry		None					Return at Alt break
96	AltGr	Ignore		96	g	f	0x1ff		Not Returned
97	Base	+	Center Intersection	97	b	c	< 197	0xc5	
97	Shift	5	Five	97	s	c	< 53	0x35	
97	Ctrl	PFK	184	97	c	f	0xb8	ESC [ 1 8 4 q	
97	Alt	Alt + Num Entry		None					Return at Alt break
97	AltGr	Ignore		97	g	f	0x1ff		Not Returned
98	Base	┘	Bottom Intersection	98	b	c	< 193	0xc1	
98	Shift	2	Two	98	s	c	< 50	0x32	
98	Ctrl	PFK	186	98	c	f	0xba	ESC [ 1 8 6 q	
98	Alt	Alt + Num Entry		None					Return at Alt break
98	AltGr	Ignore		98	g	f	0x1ff		Not Returned
99	Base		Vertical Bar	99	b	c	< 179	0xb3	
99	Shift	0	Zero	99	s	c	< 48	0x30	
99	Ctrl	PFK	178	99	c	f	0xb2	ESC [ 1 7 8 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
99	Alt	Alt + Num Entry		None				Return at Alt break	
99	AltGr	Ignore		99	g	f	0x1ff	Not Returned	
100	Base	*	Asterisk	100	b	c	< 42	0x2a	
100	Shift	*	Asterisk	100	s	c	< 42	0x2a	
100	Ctrl	PFK	187	100	c	f	0xbb	ESC [ 1 8 7 q	
100	Alt	PFK	188	100	a	f	0xbc	ESC [ 1 8 8 q	
100	AltGr	Ignore		100	g	f	0x1ff	Not Returned	
101	Base	7	Upper Right Corner	101	b	c	< 191	0xbf	
101	Shift	9	Nine	101	s	c	< 57	0x39	
101	Ctrl	PFK	190	101	c	f	0xbe	ESC [ 1 9 0 q	
101	Alt	Alt + Num Entry		None				Return at Alt break	
101	AltGr	Ignore		101	g	f	0x1ff	Not Returned	
102	Base	4	Right Edge Int.	102	b	c	< 180	0xb4	
102	Shift	6	Six	102	s	c	< 54	0x36	
102	Ctrl	PFK	192	102	c	f	0xc0	ESC [ 1 9 2 q	
102	Alt	Alt + Num Entry		None				Return at Alt break	
102	AltGr	Ignore		102	g	f	0x1ff	Not Returned	
103	Base	J	Lower Right Corner	103	b	c	< 217	0xd9	
103	Shift	3	Three	103	s	c	< 51	0x33	
103	Ctrl	PFK	194	103	c	f	0xc2	ESC [ 1 9 4 q	
103	Alt	Alt + Num Entry		None				Return at Alt break	
103	AltGr	Ignore		103	g	f	0x1ff	Not Returned	
104	Base	-	Horizontal Line	104	b	c	< 196	0xc4	
104	Shift	.	Period	104	s	c	< 46	0x2e	
104	Ctrl	PFK	196	104	c	f	0xc4	ESC [ 1 9 6 q	
104	Alt	PFK	197	104	a	f	0xc5	ESC [ 1 9 7 q	
104	AltGr	Ignore		104	g	f	0x1ff	Not Returned	
105	Base	-	Hyphen, Minus Sign	105	b	c	< 45	0x2d	
105	Shift	-	Hyphen, Minus Sign	105	s	c	< 45	0x2d	
105	Ctrl	PFK	198	105	c	f	0xc6	ESC [ 1 9 8 q	
105	Alt	PFK	199	105	a	f	0xc7	ESC [ 1 9 9 q	
105	AltGr	Ignore		105	g	f	0x1ff	Not Returned	
106	Base	+	Plus Sign	106	b	c	< 43	0x2b	
106	Shift	+	Plus Sign	106	s	c	< 43	0x2b	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned
107	Not available on keyboard							
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d
100	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned
109	Not available on keyboard							
110	Base	ESC	Escape	110	b	c	< 27	0x1b
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned
111	Not available on keyboard							
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
115	Base	PFK	4	115	b	f	0x04	ESC [ 0 0 4 q	
115	Shift	PFK	16	115	s	f	0x10	ESC [ 0 1 6 q	
115	Ctrl	PFK	28	115	c	f	0x1c	ESC [ 0 2 8 q	
115	Alt	PFK	40	115	a	f	0x28	ESC [ 0 4 0 q	
115	AltGr	Ignore		115	g	f	0x1ff	Not Returned	
116	Base	PFK	5	116	b	f	0x05	ESC [ 0 0 5 q	
116	Shift	PFK	17	116	s	f	0x11	ESC [ 0 1 7 q	
116	Ctrl	PFK	29	116	c	f	0x1d	ESC [ 0 2 9 q	
116	Alt	PFK	41	116	a	f	0x29	ESC [ 0 4 1 q	
116	AltGr	Ignore		116	g	f	0x1ff	Not Returned	
117	Base	PFK	6	117	b	f	0x06	ESC [ 0 0 6 q	
117	Shift	PFK	18	117	s	f	0x12	ESC [ 0 1 8 q	
117	Ctrl	PFK	30	117	c	f	0x1e	ESC [ 0 3 0 q	
117	Alt	PFK	42	117	a	f	0x2a	ESC [ 0 4 2 q	
117	AltGr	Ignore		117	g	f	0x1ff	Not Returned	
118	Base	PFK	7	118	b	f	0x07	ESC [ 0 0 7 q	
118	Shift	PFK	19	118	s	f	0x13	ESC [ 0 1 9 q	
118	Ctrl	PFK	31	118	c	f	0x1f	ESC [ 0 3 1 q	
118	Alt	PFK	43	118	a	f	0x2b	ESC [ 0 4 3 q	
118	AltGr	Ignore		118	g	f	0x1ff	Not Returned	
119	Base	PFK	8	119	b	f	0x08	ESC [ 0 0 8 q	
119	Shift	PFK	20	119	s	f	0x14	ESC [ 0 2 0 q	
119	Ctrl	PFK	32	119	c	f	0x20	ESC [ 0 3 2 q	
119	Alt	PFK	44	119	a	f	0x2c	ESC [ 0 4 4 q	
119	AltGr	Ignore		119	g	f	0x1ff	Not Returned	
120	Base	PFK	9	120	b	f	0x09	ESC [ 0 0 9 q	
120	Shift	PFK	21	120	s	f	0x15	ESC [ 0 2 1 q	
120	Ctrl	PFK	33	120	c	f	0x21	ESC [ 0 3 3 q	
120	Alt	PFK	45	120	a	f	0x2d	ESC [ 0 4 5 q	
120	AltGr	Ignore		120	g	f	0x1ff	Not Returned	
121	Base	PFK	10	121	b	f	0x0a	ESC [ 0 1 0 q	
121	Shift	PFK	22	121	s	f	0x16	ESC [ 0 2 2 q	
121	Ctrl	PFK	34	121	c	f	0x22	ESC [ 0 3 4 q	
121	Alt	PFK	46	121	a	f	0x2e	ESC [ 0 4 6 q	
121	AltGr	Ignore		121	g	f	0x1ff	Not Returned	



Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q
122	AltGr	Ignore		122	g	f	0x1ff	Not Returned
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q
123	AltGr	Ignore		123	g	f	0x1ff	Not Returned
124	Base	PFK	209	124	b	f	0xd1	ESC [ 2 0 9 q
124	Shift	PFK	210	124	s	f	0xd2	ESC [ 2 1 0 q
124	Ctrl	PFK	211	124	c	f	0xd3	ESC [ 2 1 1 q
124	Alt	PFK	212	124	a	f	0xd4	ESC [ 2 1 2 q
124	AltGr	Ignore		124	g	f	0x1ff	Not Returned
125	Base	PFK	213	125	b	f	0xd5	ESC [ 2 1 3 q
125	Shift	PFK	214	125	s	f	0xd6	ESC [ 2 1 4 q
125	Ctrl	PFK	215	125	c	f	0xd7	ESC [ 2 1 5 q
125	Alt	PFK	216	125	a	f	0xd8	ESC [ 2 1 6 q
125	AltGr	Ignore		125	g	f	0x1ff	Not Returned
126	Base	PFK	217	126	b	f	0xd9	ESC [ 2 1 7 q
126	Shift	PFK	218	126	s	f	0xda	ESC [ 2 1 8 q
126	Ctrl	DEL		126	c	c	< 127	0x7f
126	Alt	DEL		126	a	c	< 127	0x7f
126	AltGr	Ignore		126	g	f	0x1ff	Not Returned

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# Appendix E. Canadian/French Keyboard Layout and Table

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This appendix contains the keyboard layout and keyboard table information for the Canadian/French keyboard.

The listing below:

- 1.- Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

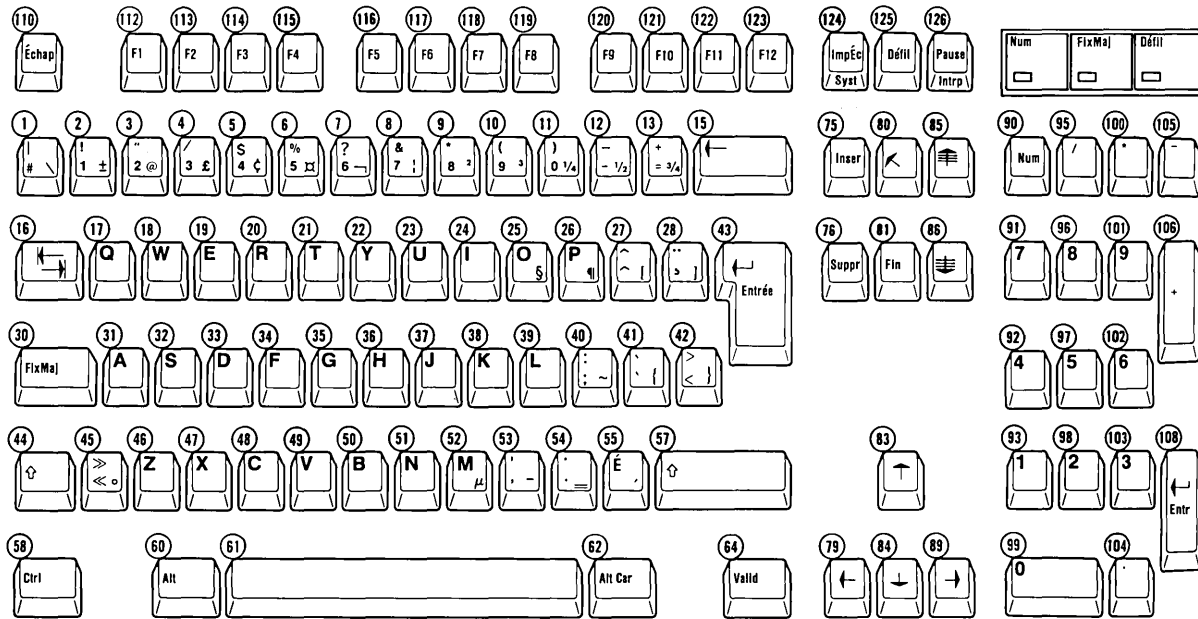
**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the **Alt** key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.

# Canadian/French Keyboard Layout



## Canadian/French Keyboard Table

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
1	Base	#	Number Sign	1 b c < 35	0x23
1	Shift		Logical OR	1 s c < 124	0x7c
1	Ctrl	SS4	Single Shift 4	1 c c < 28	0x1c
1	Alt	PFK	86	1 a f 0x56	ESC [ 0 8 6 q
1	AltGr	\	Reverse Slash	1 g c < 92	0x5c
2	Base	1	One	2 b c < 49	0x31
2	Shift	!	Exclamation Point	2 s c < 33	0x21
2	Ctrl	PFK	49	2 c f 0x31	ESC [ 0 4 9 q
2	Alt	PFK	58	2 a f 0x3a	ESC [ 0 5 8 q
2	AltGr	±	Plus or Minus Sign	2 g c < 241	0xf1
3	Base	2	Two	3 b c < 50	0x32
3	Shift	"	Double Quote	3 s c < 34	0x22
3	Ctrl	NUL	Null	3 c c < 0	0x00
3	Alt	PFK	59	3 a f 0x3b	ESC [ 0 5 9 q
3	AltGr	@	At Sign	3 g c < 64	0x40
4	Base	3	Three	4 b c < 51	0x33
4	Shift	/	Slash	4 s c < 47	0x2f
4	Ctrl	PFK	50	4 c f 0x32	ESC [ 0 5 0 q
4	Alt	PFK	60	4 a f 0x3c	ESC [ 0 6 0 q
4	AltGr	£	Pounds Sterling	4 g c < 156	0x9c
5	Base	4	Four	5 b c < 52	0x34
5	Shift	\$	Dollar Sign	5 s c < 36	0x24
5	Ctrl	PFK	51	5 c f 0x33	ESC [ 0 5 1 q
5	Alt	PFK	61	5 a f 0x3d	ESC [ 0 6 1 q
5	AltGr	¢	Cent Sign	5 g c < 189	0xbd
6	Base	5	Five	6 b c < 53	0x35
6	Shift	%	Percent Sign	6 s c < 37	0x25
6	Ctrl	PFK	52	6 c f 0x34	ESC [ 0 5 2 q
6	Alt	PFK	62	6 a f 0x3e	ESC [ 0 6 2 q
6	AltGr	₨	Int. Curr. Symbol	6 g c < 207	0xcf

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
7	Base	6	Six	7	b	c	< 54	0x36	
7	Shift	?	Question Mark	7	s	c	< 63	0x3f	
7	Ctrl	SS2	Single Shift 2	7	c	c	< 30	0x1e	
7	Alt	PFK	63	7	a	f	0x3f	ESC [ 0 6 3 q	
7	AltGr	¬	NOT Symbol	7	g	c	< 170	0xaa	
8	Base	7	Seven	8	b	c	< 55	0x37	
8	Shift	&	Ampersand	8	s	c	< 38	0x26	
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
8	AltGr	¡	Broken Vertical Line	8	g	c	< 221		0xdd
9	Base	8	Eight	9	b	c	< 56	0x38	
9	Shift	*	Asterisk	9	s	c	< 42	0x2a	
9	Ctrl	PFK	54	9	c	f	0x36	ESC [ 0 5 4 q	
9	Alt	PFK	65	9	a	f	0x41	ESC [ 0 6 5 q	
9	AltGr	²	Superscript 2	9	g	c	< 253	0xfd	
10	Base	9	Nine	10	b	c	< 57	0x39	
10	Shift	(	Left Parenthesis	10	s	c	< 40	0x28	
10	Ctrl	PFK	55	10	c	f	0x37	ESC [ 0 5 5 q	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
10	AltGr	³	Superscript 3	10	g	c	< 252	0xfc	
11	Base	0	Zero	11	b	c	< 48	0x30	
11	Shift	)	Right Parenthesis	11	s	c	< 41	0x29	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
11	AltGr	¼	One Fourth	11	g	c	< 172	0xac	
12	Base	-	Hyphen, Minus Sign	12	b	c	< 45	0x2d	
12	Shift	_	Underscore	12	s	c	< 95	0x5f	
12	Ctrl	SS1	Single Shift 1	12	c	c	< 31	0x1f	
12	Alt	PFK	68	12	a	f	0x44	ESC [ 0 6 8 q	
12	AltGr	½	One Half	12	g	c	< 171	0xab	
13	Base	=	Equal Sign	13	b	c	< 61	0x3d	
13	Shift	+	Plus Sign	13	s	c	< 43	0x2b	
13	Ctrl	PFK	69	13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK	70	13	a	f	0x46	ESC [ 0 7 0 q	
13	AltGr	¾	Three Fourths	13	g	c	< 243	0xf3	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes	
14		Not available on keyboard				
15	Base	BS	Back Space	15 b c < 8	0x08	
15	Shift	BS	Back Space	15 s c < 8	0x08	
15	Ctrl	DEL	Delete	15 c c < 127	0x7f	
15	Alt	PFK 71		15 a f 0x47	ESC [ 0 7 1 q	
15	AltGr	Ignore		15 g f 0x1ff	Not Returned	
16	Base	HT	Horizontal Tab	16 b c < 9	0x09	
16	Shift	CBT	Cursor Back Tab	16 s f 0x105	ESC [ Z	
16	Ctrl	PFK 72		16 c f 0x48	ESC [ 0 7 2 q	
16	Alt	PFK 73		16 a f 0x49	ESC [ 0 7 3 q	
16	AltGr	Ignore		16 g f 0x1ff	Not Returned	
17	Base	q	Lowercase q	17 b c < 113	0x71	CL
17	Shift	Q	Uppercase q	17 s c < 81	0x51	
17	Ctrl	DC1	Device Control 1	17 c c < 17	0x11	
17	Alt	PFK 74		17 a f 0x4a	ESC [ 0 7 4 q	
17	AltGr	Ignore		17 g f 0x1ff	Not Returned	
18	Base	w	Lowercase w	18 b c < 119	0x77	CL
18	Shift	W	Uppercase w	18 s c < 87	0x57	
18	Ctrl	ETB	End Trans Block	18 c c < 23	0x17	
18	Alt	PFK 75		18 a f 0x4b	ESC [ 0 7 5 q	
18	AltGr	Ignore		18 g f 0x1ff	Not Returned	
19	Base	e	Lowercase e	19 b c < 101	0x65	CL
19	Shift	E	Uppercase e	19 s c < 69	0x45	
19	Ctrl	ENQ	Enquiry	19 c c < 5	0x05	
19	Alt	PFK 76		19 a f 0x4c	ESC [ 0 7 6 q	
19	AltGr	Ignore		19 g f 0x1ff	Not Returned	
20	Base	r	Lowercase r	20 b c < 114	0x72	CL
20	Shift	R	Uppercase r	20 s c < 82	0x52	
20	Ctrl	DC2	Device Control 2	20 c c < 18	0x12	
20	Alt	PFK 77		20 a f 0x4d	ESC [ 0 7 7 q	
20	AltGr	Ignore		20 g f 0x1ff	Not Returned	
21	Base	t	Lowercase t	21 b c < 116	0x74	CL
21	Shift	T	Uppercase t	21 s c < 84	0x54	
21	Ctrl	DC4	Device Control 4	21 c c < 20	0x14	



Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
21	Alt	PFK 78	21 a f 0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore	21 g f 0x1ff	Not Returned	
22	Base	y Lowercase y	22 b c < 121	0x79	CL
22	Shift	Y Uppercase y	22 s c < 89	0x59	
22	Ctrl	EM End of Media	22 c c < 25	0x19	
22	Alt	PFK 79	22 a f 0x4f	ESC [ 0 7 9 q	
22	AltGr	Ignore	22 g f 0x1ff	Not Returned	
23	Base	u Lowercase u	23 b c < 117	0x75	CL
23	Shift	U Uppercase u	23 s c < 85	0x55	
23	Ctrl	NAK Not Acknowledge	23 c c < 21	0x15	
23	Alt	PFK 80	23 a f 0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore	23 g f 0x1ff	Not Returned	
24	Base	i Lowercase i	24 b c < 105	0x69	CL
24	Shift	I Uppercase i	24 s c < 73	0x49	
24	Ctrl	HT Horizontal Tab	24 c c < 9	0x09	
24	Alt	PFK 81	24 a f 0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore	24 g f 0x1ff	Not Returned	
25	Base	o Lowercase o	25 b c < 111	0x6f	CL
25	Shift	O Uppercase o	25 s c < 79	0x4f	
25	Ctrl	SI Shift In	25 c c < 15	0x0f	
25	Alt	PFK 82	25 a f 0x52	ESC [ 0 8 2 q	
25	AltGr	§ Section Symbol	25 g c < 245	0xf5	
26	Base	p Lowercase p	26 b c < 112	0x70	CL
26	Shift	P Uppercase p	26 s c < 80	0x50	
26	Ctrl	DLE Data Link Enabl	26 c c < 16	0x10	
26	Alt	PFK 83	26 a f 0x53	ESC [ 0 8 3 q	
26	AltGr	¶ Paragraph Symbol	26 g c < 244	0xf4	
27	Base	^ Circumflex Accent	27 b d < 94	0x5e	DK
27	Shift	^ Circumflex Accent	27 s d < 94	0x5e	DK
27	Ctrl	ESC Escape	27 c c < 27	0x1b	
27	Alt	PFK 84	27 a f 0x54	ESC [ 0 8 4 q	
27	AltGr	[ Left Bracket	27 g c < 91	0x5b	
28	Base	• Cedilla Accent	28 b d < 247	0xf7	DK
28	Shift	¨ Diaeresis Accent	28 s d < 249	0xf9	DK

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
28	Ctrl	SS3	Single Shift 3	28	c	c	< 29	0x1d	
28	Alt	PFK	85	28	a	f	0x55	ESC [ 0 8 5 q	
28	AltGr	]	Right Bracket	28	g	c	< 93	0x5d	
29	Not Available on keyboard								
30	Base	Caps Lock		None				Not Returned	
30	Shift	Caps Lock		None				Not Returned	
30	Ctrl	Caps Lock		None				Not Returned	
30	Alt	Caps Lock		None				Not Returned	
30	AltGr	Caps Lock		None				Not Returned	
31	Base	a	Lowercase a	31	b	c	< 97	0x61	CL
31	Shift	A	Uppercase a	31	s	c	< 65	0x41	
31	Ctrl	SOH	Start of Header	31	c	c	< 1	0x01	
31	Alt	PFK	87	31	a	f	0x57	ESC [ 0 8 7 q	
31	AltGr	Ignore		31	g	f	0x1ff	Not Returned	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK	88	32	a	f	0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore		32	g	f	0x1ff	Not Returned	
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK	89	33	a	f	0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore		33	g	f	0x1ff	Not Returned	
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK	90	34	a	f	0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore		34	g	f	0x1ff	Not Returned	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore		35	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK	92	36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK	93	37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK	94	38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK	95	39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	;	Semicolon	40	b	c	< 59	0x3b	
40	Shift	:	Colon	40	s	c	< 58	0x3a	
40	Ctrl	PFK	96	40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK	97	40	a	f	0x61	ESC [ 0 9 7 q	
40	AltGr	~	Tilde Accent	40	g	d	< 126	0x7e	DK
41	Base	`	Grave Accent	41	b	d	< 96	0x60	DK
41	Shift	´	Grave Accent	41	s	d	< 96	0x60	DK
41	Ctrl	PFK	98	41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK	99	41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	{	Left Brace	41	g	c	< 123	0x7b	
42	Base	<	Less Than Sign	42	b	c	< 60	0x3c	
42	Shift	>	Greater Than Sign	42	s	c	< 62	0x3e	
42	Ctrl	PFK	57	41	c	f	0x39	ESC [ 0 5 7 q	
42	Alt	PFK	115	42	a	c	0x73	ESC [ 1 1 5 q	
42	AltGr	}	Right Brace	42	g	c	< 125	0x7d	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK 100		43	a	f	0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore		43	g	f	0x1ff	Not Returned	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
44	AltGr	Shift (Left)		None				Not Returned	
45	Base	«	Left Angle Quotes	45	b	c	< 174	0xae	
45	Shift	»	Right Angle Quotes	45	s	c	< 175	0xaf	
45	Ctrl	Ignore		45	c	f	0x1ff	Not Returned	
45	Alt	Ignore		45	a	f	0x1ff	Not Returned	
45	AltGr	°	Degree Symbol	45	g	c	< 248	0xf8	
46	Base	z	Lowercase z	46	b	c	< 122	0x7a	CL
46	Shift	Z	Uppercase z	46	s	c	< 90	0x5a	
46	Ctrl	SUB	Substitute Char.	46	c	c	< 26	0x1a	
46	Alt	PFK 101		46	a	f	0x65	ESC [ 1 0 1 q	
46	AltGr	Ignore		46	g	f	0x1ff	Not Returned	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK 102		47	a	f	0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore		47	g	f	0x1ff	Not Returned	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of Text	48	c	c	< 3	0x03	
48	Alt	PFK 103		48	a	f	0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore		48	g	f	0x1ff	Not Returned	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK 104		49	a	f	0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore		49	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK 105		50	a	f	0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore		50	g	f	0x1ff	Not Returned	
51	Base	n	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK 106		51	a	f	0x65	ESC [ 1 0 6 q	
51	AltGr	Ignore		51	g	f	0x1ff	Not Returned	
52	Base	m	Lowercase m	52	b	c	< 109	0x6d	CL
52	Shift	M	Uppercase m	52	s	c	< 77	0x4d	
52	Ctrl	CR	Carriage Return	52	c	c	< 13	0x0d	
52	Alt	PFK 107		52	a	f	0x66	ESC [ 1 0 7 q	
52	AltGr	μ	Micro Symbol	53	g	c	< 125	0xe6	
53	Base	,	Comma	53	b	c	< 44	0x2c	
53	Shift	'	Quote, Apostrophe	53	s	c	< 39	0x27	
53	Ctrl	PFK 108		53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK 109		53	a	f	0x6d	ESC [ 1 0 9 q	
53	AltGr	—	Overline, Overbar	53	a	c	< 238	0xee	
54	Base	.	Period	54	b	c	< 46	0x2e	
54	Shift	.	Period	54	s	c	< 46	0x2e	
54	Ctrl	PFK 110		54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK 111		54	a	f	0x6f	ESC [ 1 1 1 q	
54	AltGr	==	Double Underscore	54	g	c	< 242	0xf2	
55	Base	é	e Acute Small	55	b	d	< 130	0x82	CL
55	Shift	É	e Acute Capital	55	s	d	< 144	0x90	
55	Ctrl	PFK 112		55	c	f	0x70	ESC [ 1 1 2 q	
55	Alt	PFK 113		55	a	f	0x71	ESC [ 1 1 3 q	
55	AltGr	'	Acute Accent	55	g	d	< 239	0xef	
56	Not available on keyboard								
57	Base	Shift (Right)		None				Not Returned	
57	Shift	Shift (Right)		None				Not Returned	
57	Ctrl	Shift (Right)		None				Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition n n n s t -----	Returned String	Notes
57	Alt	Switch Keyboard	None		Reserved for IBM 5080
57	AltGr	Shift (Right)	None		Not Returned
58	Base	Control	None		Not Returned
58	Shift	Control	None		Not Returned
58	Ctrl	Control	None		Not Returned
58	Alt	Control	None		Not Returned
58	AltGr	Control	None		Not Returned
59	Not available on keyboard				
60	Base	Alternate Shift	None		Not Returned
60	Shift	Alternate Shift	None		Not Returned
60	Ctrl	Alternate Shift	None		Not Returned
60	Alt	Alternate Shift	None		Not Returned
60	AltGr	Alternate Shift	None		Not Returned
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff		Not Returned
62	Base	Alternate Graphic Shift	None		Not Returned
62	Shift	Alternate Graphic Shift	None		Not Returned
62	Ctrl	Alternate Graphic Shift	None		Not Returned
62	Alt	Alternate Graphic Shift	None		Not Returned
62	AltGr	Alternate Graphic Shift	None		Not Returned
63	Not available on keyboard				
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None		VTRM Previous Window
64	Ctrl	VTRM Windows Window	None		VTRM Windows Window
64	Alt	VTRM Next Window	None		VTRM Next Window
64	AltGr	VTRM Next Window	None		VTRM Next Window
65 - 74	Not available on keyboard				
75	Base	PFK 139 INS Toggle	75 b f 0x8b	ESC [ 1 3 9 q	
75	Shift	PFK 139 INS Toggle	75 s f 0x8b	ESC [ 1 3 9 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q	
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q	
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned	
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P	
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P	
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q	
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M	
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned	
77	Not available on keyboard								
78	Not available on keyboard								
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D	
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q	
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q	
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q	
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned	
80	Base	HOME		80	b	f	0x108	ESC [ H	
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q	
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q	
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q	
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned	
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q	
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q	
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q	
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q	
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned	
82	Not available on keyboard								
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A	
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q	
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q	
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q	
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
84	Base	CUD Cursor Down	84 b f 0x102	ESC [ B	
84	Shift	PFK 164	84 s f 0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK 165	84 c f 0xa5	ESC [ 1 6 5 q	
84	Alt	PFK 166	84 a f 0xa6	ESC [ 1 6 6 q	
84	AltGr	Ignore	84 g f 0x1ff	Not Returned	
85	Base	PFK 150	85 b f 0x96	ESC [ 1 5 0 q	
85	Shift	PFK 151	85 s f 0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK 152	85 c f 0x98	ESC [ 1 5 2 q	
85	Alt	PFK 153	85 a f 0x99	ESC [ 1 5 3 q	
85	AltGr	Ignore	85 g f 0x1ff	Not Returned	
86	Base	PFK 154	86 b f 0x9a	ESC [ 1 5 4 q	
86	Shift	PFK 155	86 s f 0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK 156	86 c f 0x9c	ESC [ 1 5 6 q	
86	Alt	PFK 157	86 a f 0x9d	ESC [ 1 5 7 q	
86	AltGr	Ignore	86 g f 0x1ff	Not Returned	
87	Not available on keyboard				
88	Not available on keyboard				
89	Base	CUF Cursor Forward	89 b f 0x103	ESC [ C	
89	Shift	PFK 167	89 s f 0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK 168	89 c f 0xa8	ESC [ 1 6 8 q	
89	Alt	PFK 169	89 a f 0xa9	ESC [ 1 6 9 q	
89	AltGr	Ignore	89 g f 0x1ff	Not Returned	
90	Base	NUM LOCK	None	Not Returned	
90	Shift	NUM LOCK	None	Not Returned	
90	Ctrl	DC3 Device Control 3	90 c c < 19	0x13	
90	Alt	PFK 170	90 a f 0xaa	ESC [ 1 7 0 q	
90	AltGr	Ignore	90 g f 0x1ff	Not Returned	
91	Base	r Upper Left Corner	91 b c < 218	0xda	
91	Shift	7 Seven	91 s c < 55	0x37	
91	Ctrl	PFK 172	91 c f 0xac	ESC [ 1 7 2 q	
91	Alt	Alt+Num Entry	None	Return at Alt Break	
91	AltGr	Ignore	91 g f 0x1ff	Not Returned	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
92	Base	┌	Left Edge Int.	92	b	c	< 195	0xc3	
92	Shift	4	Four	92	s	c	< 52	0x34	
92	Ctrl	PFK	174	92	c	f	0xae	ESC [ 1 7 4 q	
92	Alt	Alt+Num Entry		None				Return at Alt Break	
92	AltGr	Ignore		92	g	f	0x1ff	Not Returned	
93	Base	└	Lower Left Corner	93	b	c	< 192	0xc0	
93	Shift	1	One	93	s	c	< 49	0x31	
93	Ctrl	PFK	176	93	c	f	0xb0	ESC [ 1 7 6 q	
93	Alt	Alt+Num Entry		None				Return at Alt Break	
93	AltGr	Ignore		93	g	f	0x1ff	Not Returned	
94	Not available on keyboard								
95	Base	/	Slash	95	b	c	< 47	0x2f	
95	Shift	/	Slash	95	s	c	< 47	0x2f	
95	Ctrl	PFK	179	95	c	f	0xb3	ESC [ 1 7 9 q	
95	Alt	PFK	180	95	a	f	0xb4	ESC [ 1 8 0 q	
95	AltGr	Ignore		95	g	f	0x1ff	Not Returned	
96	Base	┐	Top Edge Int.	96	b	c	< 194	0xc2	
96	Shift	8	Eight	96	s	c	< 56	0x38	
96	Ctrl	PFK	182	96	c	f	0xb6	ESC [ 1 8 2 q	
96	Alt	Alt+Num Entry		None				Return at Alt break	
96	AltGr	Ignore		96	g	f	0x1ff	Not Returned	
97	Base	┼	Center Intersection	97	b	c	< 197	0xc5	
97	Shift	5	Five	97	s	c	< 53	0x35	
97	Ctrl	PFK	184	97	c	f	0xb8	ESC [ 1 8 4 q	
97	Alt	Alt+Num Entry		None				Return at Alt break	
97	AltGr	Ignore		97	g	f	0x1ff	Not Returned	
98	Base	┘	Bottom Intersection	98	b	c	< 193	0xc1	
98	Shift	2	Two	98	s	c	< 50	0x32	
98	Ctrl	PFK	186	98	c	f	0xba	ESC [ 1 8 6 q	
98	Alt	Alt+Num Entry		None				Return at Alt break	
98	AltGr	Ignore		98	g	f	0x1ff	Not Returned	
99	Base		Vertical Bar	99	b	c	< 179	0xb3	
99	Shift	0	Zero	99	s	c	< 48	0x30	
99	Ctrl	PFK	178	99	c	f	0xb2	ESC [ 1 7 8 q	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
99	Alt	Alt + Num Entry	None		Return at Alt break
99	AltGr	Ignore	99 g f	0x1ff	Not Returned
100	Base	* Asterisk	100 b c	< 42	0x2a
100	Shift	* Asterisk	100 s c	< 42	0x2a
100	Ctrl	PFK 187	100 c f	0xbb	ESC [ 1 8 7 q
100	Alt	PFK 188	100 a f	0xbc	ESC [ 1 8 8 q
100	AltGr	Ignore	100 g f	0x1ff	Not Returned
101	Base	⌵ Upper Right Corner	101 b c	< 191	0xbf
101	Shift	9 Nine	101 s c	< 57	0x39
101	Ctrl	PFK 190	101 c f	0xbe	ESC [ 1 9 0 q
101	Alt	Alt + Num Entry	None		Return at Alt break
101	AltGr	Ignore	101 g f	0x1ff	Not Returned
102	Base	⌵ Right Edge Int.	102 b c	< 180	0xb4
102	Shift	6 Six	102 s c	< 54	0x36
102	Ctrl	PFK 192	102 c f	0xc0	ESC [ 1 9 2 q
102	Alt	Alt + Num Entry	None		Return at Alt break
102	AltGr	Ignore	102 g f	0x1ff	Not Returned
103	Base	⌵ Lower Right Corner	103 b c	< 217	0xd9
103	Shift	3 Three	103 s c	< 51	0x33
103	Ctrl	PFK 194	103 c f	0xc2	ESC [ 1 9 4 q
103	Alt	Alt + Num Entry	None		Return at Alt break
103	AltGr	Ignore	103 g f	0x1ff	Not Returned
104	Base	- Horizontal Line	104 b c	< 196	0xc4
104	Shift	. Period	104 s c	< 46	0x2e
104	Ctrl	PFK 196	104 c f	0xc4	ESC [ 1 9 6 q
104	Alt	PFK 197	104 a f	0xc5	ESC [ 1 9 7 q
104	AltGr	Ignore	104 g f	0x1ff	Not Returned
105	Base	- Hyphen, Minus Sign	105 b c	< 45	0x2d
105	Shift	- Hyphen, Minus Sign	105 s c	< 45	0x2d
105	Ctrl	PFK 198	105 c f	0xc6	ESC [ 1 9 8 q
105	Alt	PFK 199	105 a f	0xc7	ESC [ 1 9 9 q
105	AltGr	Ignore	105 g f	0x1ff	Not Returned
106	Base	+ Plus Sign	106 b c	< 43	0x2b
106	Shift	+ Plus Sign	106 s c	< 43	0x2b

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
108	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
115	Base	PFK 4	115	b	f	0x04	ESC [ 0 0 4 q	
115	Shift	PFK 16	115	s	f	0x10	ESC [ 0 1 6 q	
115	Ctrl	PFK 28	115	c	f	0x1c	ESC [ 0 2 8 q	
115	Alt	PFK 40	115	a	f	0x28	ESC [ 0 4 0 q	
115	AltGr	Ignore	115	g	f	0x1ff	Not Returned	
116	Base	PFK 5	116	b	f	0x05	ESC [ 0 0 5 q	
116	Shift	PFK 17	116	s	f	0x11	ESC [ 0 1 7 q	
116	Ctrl	PFK 29	116	c	f	0x1d	ESC [ 0 2 9 q	
116	Alt	PFK 41	116	a	f	0x29	ESC [ 0 4 1 q	
116	AltGr	Ignore	116	g	f	0x1ff	Not Returned	
117	Base	PFK 6	117	b	f	0x06	ESC [ 0 0 6 q	
117	Shift	PFK 18	117	s	f	0x12	ESC [ 0 1 8 q	
117	Ctrl	PFK 30	117	c	f	0x1e	ESC [ 0 3 0 q	
117	Alt	PFK 42	117	a	f	0x2a	ESC [ 0 4 2 q	
117	AltGr	Ignore	117	g	f	0x1ff	Not Returned	
118	Base	PFK 7	118	b	f	0x07	ESC [ 0 0 7 q	
118	Shift	PFK 19	118	s	f	0x13	ESC [ 0 1 9 q	
118	Ctrl	PFK 31	118	c	f	0x1f	ESC [ 0 3 1 q	
118	Alt	PFK 43	118	a	f	0x2b	ESC [ 0 4 3 q	
118	AltGr	Ignore	118	g	f	0x1ff	Not Returned	
119	Base	PFK 8	119	b	f	0x08	ESC [ 0 0 8 q	
119	Shift	PFK 20	119	s	f	0x14	ESC [ 0 2 0 q	
119	Ctrl	PFK 32	119	c	f	0x20	ESC [ 0 3 2 q	
119	Alt	PFK 44	119	a	f	0x2c	ESC [ 0 4 4 q	
119	AltGr	Ignore	119	g	f	0x1ff	Not Returned	
120	Base	PFK 9	120	b	f	0x09	ESC [ 0 0 9 q	
120	Shift	PFK 21	120	s	f	0x15	ESC [ 0 2 1 q	
120	Ctrl	PFK 33	120	c	f	0x21	ESC [ 0 3 3 q	
120	Alt	PFK 45	120	a	f	0x2d	ESC [ 0 4 5 q	
120	AltGr	Ignore	120	g	f	0x1ff	Not Returned	
121	Base	PFK 10	121	b	f	0x0a	ESC [ 0 1 0 q	
121	Shift	PFK 22	121	s	f	0x16	ESC [ 0 2 2 q	
121	Ctrl	PFK 34	121	c	f	0x22	ESC [ 0 3 4 q	
121	Alt	PFK 46	121	a	f	0x2e	ESC [ 0 4 6 q	
121	AltGr	Ignore	121	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q
122	AltGr	Ignore		122	g	f	0x1ff	Not Returned
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q
123	AltGr	Ignore		123	g	f	0x1ff	Not Returned
124	Base	PFK	209	124	b	f	0xd1	ESC [ 2 0 9 q
124	Shift	PFK	210	124	s	f	0xd2	ESC [ 2 1 0 q
124	Ctrl	PFK	211	124	c	f	0xd3	ESC [ 2 1 1 q
124	Alt	PFK	212	124	a	f	0xd4	ESC [ 2 1 2 q
124	AltGr	Ignore		124	g	f	0x1ff	Not Returned
125	Base	PFK	213	125	b	f	0xd5	ESC [ 2 1 3 q
125	Shift	PFK	214	125	s	f	0xd6	ESC [ 2 1 4 q
125	Ctrl	PFK	215	125	c	f	0xd7	ESC [ 2 1 5 q
125	Alt	PFK	216	125	a	f	0xd8	ESC [ 2 1 6 q
125	AltGr	Ignore		125	g	f	0x1ff	Not Returned
126	Base	PFK	217	126	b	f	0xd9	ESC [ 2 1 7 q
126	Shift	PFK	218	126	s	f	0xda	ESC [ 2 1 8 q
126	Ctrl	DEL		126	c	c	< 127	0x7f
126	Alt	DEL		126	a	c	< 127	0x7f
126	AltGr	Ignore		126	g	f	0x1ff	Not Returned

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## Appendix F. Danish Keyboard Layout and Table

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This appendix contains the keyboard layout and keyboard table information for the Danish keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

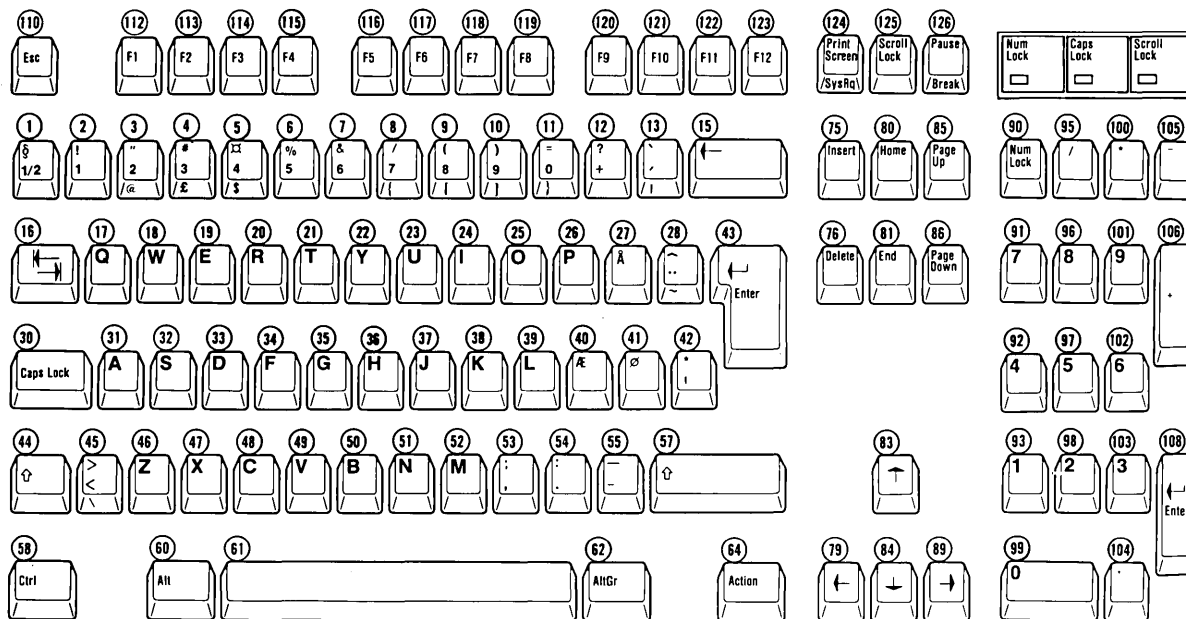
**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the **Alt** key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.



# Danish Keyboard



## Danish Keyboard Table

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
1	Base	½ One Half Fraction	1 b c < 171	0xab	P1
1	Shift	§ Section Symbol	1 s c < 245	0xf5	
1	Ctrl	Ignore	1 c f 0x1ff	Not Returned	
1	Alt	PFK 86	1 a f 0x56	ESC [ 0 8 6 q	
1	AltGr	Ignore	1 g f 0x1ff	Not Returned	
2	Base	1 One	2 b c < 49	0x31	
2	Shift	! Exclamation Point	2 s c < 33	0x21	
2	Ctrl	PFK 49	2 c f 0x31	ESC [ 0 4 9 q	
2	Alt	PFK 58	2 a f 0x3a	ESC [ 0 5 8 q	
2	AltGr	Ignore	2 g f 0x1ff	Not Returned	
3	Base	2 Two	3 b c < 50	0x32	
3	Shift	" Double Quote	3 s c < 34	0x22	
3	Ctrl	NUL Null	3 c c < 0	0x00	
3	Alt	PFK 59	3 a f 0x3b	ESC [ 0 5 9 q	
3	AltGr	@ At Sign	3 g c < 64	0x40	
4	Base	3 Three	4 b c < 51	0x33	
4	Shift	# Number Sign	4 s c < 35	0x23	
4	Ctrl	PFK 50	4 c f 0x32	ESC [ 0 5 0 q	
4	Alt	PFK 60	4 a f 0x3c	ESC [ 0 6 0 q	
4	AltGr	£ Pounds Sterling	4 g c < 156	0x9c	
5	Base	4 Four	5 b c < 52	0x34	
5	Shift	¤ Int. Curr. Symbol	5 s c < 207	0xcf	
5	Ctrl	PFK 51	5 c f 0x33	ESC [ 0 5 1 q	
5	Alt	PFK 61	5 a f 0x3d	ESC [ 0 6 1 q	
5	AltGr	\$ Dollar Sign	5 g c < 36	0x24	
6	Base	5 Five	6 b c < 53	0x35	
6	Shift	% Percent Sign	6 s c < 37	0x25	
6	Ctrl	PFK 52	6 c f 0x34	ESC [ 0 5 2 q	
6	Alt	PFK 62	6 a f 0x3e	ESC [ 0 6 2 q	
6	AltGr	Ignore	6 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
7	Base	6	Six	7	b	c	< 54	0x36	
7	Shift	&	Ampersand	7	s	c	< 38	0x26	
7	Ctrl	SS2	Single Shift 2	7	c	c	< 30	0x1e	
7	Alt	PFK	63	7	a	f	0x3f	ESC [ 0 6 3 q	
7	AltGr	Ignore		7	g	f	0x1ff	Not Returned	
8	Base	7	Seven	8	b	c	< 55	0x37	
8	Shift	/	Slash	8	s	c	< 47	0x2f	
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
8	AltGr	{	Left Brace	8	g	c	< 123	0x7b	
9	Base	8	Eight	9	b	c	< 56	0x38	
9	Shift	(	Left Parenthesis	9	s	c	< 40	0x28	
9	Ctrl	ESC	Escape	9	c	c	< 27	0x1b	
9	Alt	PFK	65	9	a	f	0x41	ESC [ 0 6 5 q	
9	AltGr	[	Left Bracket	9	g	c	< 91	0x5b	
10	Base	9	Nine	10	b	c	< 57	0x39	
10	Shift	)	Right Parenthesis	10	s	c	< 41	0x29	
10	Ctrl	SS3	Single Shift 3	10	c	c	< 29	0x1d	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
10	AltGr	]	Right Bracket	10	g	c	< 93	0x5d	
11	Base	0	Zero	11	b	c	< 48	0x30	
11	Shift	=	Equal Sign	11	s	c	< 61	0x3d	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
11	AltGr	}	Right Brace	11	g	c	< 125	0x7d	
12	Base	+	Plus Sign	12	b	c	< 43	0x2b	
12	Shift	?	Question Mark	12	s	c	< 63	0x3f	
12	Ctrl	PFK	112	12	c	f	0x70	ESC [ 1 1 2 q	
12	Alt	PFK	113	12	a	f	0x71	ESC [ 1 1 3 q	
12	AltGr	Ignore		12	g	f	0x1ff	Not Returned	
13	Base	'	Acute Accent	13	b	d	< 239	0xef	DK
13	Shift	`	Grave Accent	13	s	d	< 96	0x60	DK
13	Ctrl	PFK	69	13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK	70	13	a	f	0x46	ESC [ 0 7 0 q	
13	AltGr		Pipe Symbol	13	g	c	< 124	0x7c	

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
14		Key not available			
15	Base	BS Back Space	15 b c < 8	0x08	
15	Shift	BS Back Space	15 s c < 8	0x08	
15	Ctrl	DEL Delete	15 c c < 127	0x7f	
15	Alt	PFK 71	15 a f 0x47	ESC [ 0 7 1 q	
15	AltGr	Ignore	15 g f 0x1ff	Not Returned	
16	Base	HT Horizontal Tab	16 b c < 9	0x09	
16	Shift	CBT Cursor Back Tab	16 s f 0x105	ESC [ Z	
16	Ctrl	PFK 72	16 c f 0x48	ESC [ 0 7 2 q	
16	Alt	PFK 73	16 a f 0x49	ESC [ 0 7 3 q	
16	AltGr	Ignore	16 g f 0x1ff	Not Returned	
17	Base	q Lowercase q	17 b c < 113	0x71	CL
17	Shift	Q Uppercase q	17 s c < 81	0x51	
17	Ctrl	DC1 Device Control 1	17 c c < 17	0x11	
17	Alt	PFK 74	17 a f 0x4a	ESC [ 0 7 4 q	
17	AltGr	Ignore	17 g f 0x1ff	Not Returned	
18	Base	w Lowercase w	18 b c < 119	0x77	CL
18	Shift	W Uppercase w	18 s c < 87	0x57	
18	Ctrl	ETB End Trans Block	18 c c < 23	0x17	
18	Alt	PFK 75	18 a f 0x4b	ESC [ 0 7 5 q	
18	AltGr	Ignore	18 g f 0x1ff	Not Returned	
19	Base	e Lowercase e	19 b c < 101	0x65	CL
19	Shift	E Uppercase e	19 s c < 69	0x45	
19	Ctrl	ENQ Enquiry	19 c c < 5	0x05	
19	Alt	PFK 76	19 a f 0x4c	ESC [ 0 7 6 q	
19	AltGr	Ignore	19 g f 0x1ff	Not Returned	
20	Base	r Lowercase r	20 b c < 114	0x72	CL
20	Shift	R Uppercase r	20 s c < 82	0x52	
20	Ctrl	DC2 Device Control 2	20 c c < 18	0x12	
20	Alt	PFK 77	20 a f 0x4d	ESC [ 0 7 7 q	
20	AltGr	Ignore	20 g f 0x1ff	Not Returned	
21	Base	t Lowercase t	21 b c < 116	0x74	CL
21	Shift	T Uppercase t	21 s c < 84	0x54	
21	Ctrl	DC4 Device Control 4	21 c c < 20	0x14	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore		21	g	f	0x1ff	Not Returned	
22	Base	y	Lowercase y	22	b	c	< 121	0x79	CL
22	Shift	Y	Uppercase y	22	s	c	< 89	0x59	
22	Ctrl	EM	End of Media	22	c	c	< 25	0x19	
22	Alt	PFK	79	22	a	f	0x4f	ESC [ 0 7 9 q	
22	AltGr	Ignore		22	g	f	0x1ff	Not Returned	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore		23	g	f	0x1ff	Not Returned	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore		24	g	f	0x1ff	Not Returned	
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
25	AltGr	Ignore		25	g	f	0x1ff	Not Returned	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
26	AltGr	Ignore		26	g	f	0x1ff	Not Returned	
27	Base	à	a Overcircle Small	27	b	c	< 134	0x86	CL
27	Shift	À	a Overcircle Capital	27	s	c	< 143	0x8f	
27	Ctrl	PFK	54	27	c	f	0x36	ESC [ 0 5 4 q	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
27	AltGr	Ignore		27	g	f	0x1ff	Not Returned	
28	Base	¨	Diaeresis Accent	28	b	d	< 249	0xf9	DK
28	Shift	^	Circumflex Accent	28	s	d	< 94	0x5e	DK

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
28	Ctrl	PFK	55	28	c	f	0x37	ESC [ 0 5 5 q	
28	Alt	PFK	85	28	a	f	0x55	ESC [ 0 8 5 q	
28	AltGr	~	Tilde Accent	28	g	d	< 126	0x7e	DK
29	Not available on keyboard								
30	Base	Caps Lock		None				Not Returned	
30	Shift	Caps Lock		None				Not Returned	
30	Ctrl	Caps Lock		None				Not Returned	
30	Alt	Caps Lock		None				Not Returned	
30	AltGr	Caps Lock		None				Not Returned	
31	Base	a	Lowercase a	31	b	c	< 97	0x61	CL
31	Shift	A	Uppercase a	31	s	c	< 65	0x41	
31	Ctrl	SOH	Start of Header	31	c	c	< 1	0x01	
31	Alt	PFK	87	31	a	f	0x57	ESC [ 0 8 7 q	
31	AltGr	Ignore		31	g	f	0x1ff	Not Returned	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK	88	32	a	f	0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore		32	g	f	0x1ff	Not Returned	
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK	89	33	a	f	0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore		33	g	f	0x1ff	Not Returned	
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK	90	34	a	f	0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore		34	g	f	0x1ff	Not Returned	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore		35	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK	92	36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK	93	37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK	94	38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK	95	39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	æ	ae Diphthong Small	40	b	c	< 145	0x91	CL
40	Shift	Æ	ae Diphthong Capital	40	s	c	< 146	0x92	
40	Ctrl	PFK	96	40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK	97	40	a	f	0x61	ESC [ 0 9 7 q	
40	AltGr	'	Acute Accent	40	g	c	< 239	0xef	
41	Base	ø	o Slash Small	41	b	c	< 155	0x9b	CL
41	Shift	Ø	o Slash Capital	41	b	c	< 157	0x9d	
41	Ctrl	PFK	98	41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK	99	41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	Ignore		41	g	f	0x1ff	Not Returned	
42	Base	'	Quote, Apostrophe	42	b	c	< 39	0x27	
42	Shift	*	Asterisk	42	s	c	< 42	0x2a	
42	Ctrl	PFK	57	42	c	f	0x39	ESC [ 0 5 7 q	
42	Alt	PFK	115	42	a	f	0x73	ESC [ 1 1 5 q	
42	AltGr	Ignore		42	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK 100		43	a	f	0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore		43	g	f	0x1ff	Not Returned	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
44	AltGr	Shift (Left)		None				Not Returned	
45	Base	<	Less Than Sign	45	b	c	< 60	0x3c	
45	Shift	>	Greater Than Sign	45	s	c	< 62	0x3e	
45	Ctrl	SS4	Single Shift 4	45	c	c	< 28	0x1c	
45	Alt	Ignore		45	a	f	0x1ff	Not Returned	
45	AltGr	\	Reverse Slash	45	g	c	< 92	0x5c	
46	Base	z	Lowercase z	46	b	c	< 122	0x7a	CL
46	Shift	Z	Uppercase z	46	s	c	< 90	0x5a	
46	Ctrl	SUB	Substitute Char.	46	c	c	< 26	0x1a	
46	Alt	PFK 101		46	a	f	0x65	ESC [ 1 0 1 q	
46	AltGr	Ignore		46	g	f	0x1ff	Not Returned	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK 102		47	a	f	0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore		47	g	f	0x1ff	Not Returned	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of Text	48	c	c	< 3	0x03	
48	Alt	PFK 103		48	a	f	0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore		48	g	f	0x1ff	Not Returned	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK 104		49	a	f	0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore		49	g	f	0x1ff	Not Returned	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK 105		50	a	f	0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore		50	g	f	0x1ff	Not Returned	
51	Base	n	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK 106		51	a	f	0x65	ESC [ 1 0 6 q	
51	AltGr	Ignore		51	g	f	0x1ff	Not Returned	
52	Base	m	Lowercase m	52	b	c	< 109	0x6d	CL
52	Shift	M	Uppercase m	52	s	c	< 77	0x4d	
52	Ctrl	CR	Carriage Return	52	c	c	< 13	0x0d	
52	Alt	PFK 107		52	a	f	0x66	ESC [ 1 0 7 q	
52	AltGr	Ignore		52	g	f	0x1ff	Not Returned	
53	Base	,	Comma	53	b	c	< 44	0x2c	
53	Shift	;	Semicolon	53	s	c	< 59	0x3b	
53	Ctrl	PFK 108		53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK 109		53	a	f	0x6d	ESC [ 1 0 9 q	
53	AltGr	Ignore		53	g	f	0x1ff	Not Returned	
54	Base	.	Period	54	b	c	< 46	0x2e	
54	Shift	:	Colon	54	s	c	< 58	0x3a	
54	Ctrl	PFK 110		54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK 111		54	a	f	0x6f	ESC [ 1 1 1 q	
54	AltGr	Ignore		54	g	f	0x1ff	Not Returned	
55	Base	-	Hyphen, Minus Sign	55	b	c	< 45	0x2d	
55	Shift	_	Underscore	55	s	c	< 95	0x5f	
55	Ctrl	SS1	Single Shift 1	55	c	c	< 31	0x1f	
55	Alt	PFK 68		55	a	f	0x44	ESC [ 0 6 8 q	
55	AltGr	Ignore		55	g	f	0x1ff	Not Returned	
56	Not available on keyboard								
57	Base	Shift (Right)		None				Not Returned	
57	Shift	Shift (Right)		None				Not Returned	
57	Ctrl	Shift (Right)		None				Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
57	Alt	Switch Keyboard	None	Reserved for IBM 5080	
57	AltGr	Shift (Right)	None	Not Returned	
58	Base	Control	None	Not Returned	
58	Shift	Control	None	Not Returned	
58	Ctrl	Control	None	Not Returned	
58	Alt	Control	None	Not Returned	
58	AltGr	Control	None	Not Returned	
59	Not available on keyboard				
60	Base	Alternate Shift	None	Not Returned	
60	Shift	Alternate Shift	None	Not Returned	
60	Ctrl	Alternate Shift	None	Not Returned	
60	Alt	Alternate Shift	None	Not Returned	
60	AltGr	Alternate Shift	None	Not Returned	
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff	Not Returned	
62	Base	Alternate Graphic Shift	None	Not Returned	
62	Shift	Alternate Graphic Shift	None	Not Returned	
62	Ctrl	Alternate Graphic Shift	None	Not Returned	
62	Alt	Alternate Graphic Shift	None	Not Returned	
62	AltGr	Alternate Graphic Shift	None	Not Returned	
63	Not available on keyboard				
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None	VTRM Previous Window	
64	Ctrl	VTRM Windows Window	None	VTRM Windows Window	
64	Alt	VTRM Next Window	None	VTRM Next Window	
64	AltGr	VTRM Next Window	None	VTRM Next Window	
65 - 74	Not available on keyboard				
75	Base	PFK 139 INS Toggle	75 b f 0x8b	ESC [ 1 3 9 q	
75	Shift	PFK 139 INS Toggle	75 s f 0x8b	ESC [ 1 3 9 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q	
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q	
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned	
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P	
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P	
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q	
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M	
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned	
77	Not available on keyboard								
78	Not available on keyboard								
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D	
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q	
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q	
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q	
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned	
80	Base	HOME		80	b	f	0x108	ESC [ H	
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q	
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q	
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q	
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned	
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q	
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q	
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q	
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q	
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned	
82	Not available on keyboard								
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A	
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q	
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q	
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q	
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
84	Base	CUD Cursor Down	84 b f 0x102	ESC [ B	
84	Shift	PFK 164	84 s f 0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK 165	84 c f 0xa5	ESC [ 1 6 5 q	
84	Alt	PFK 166	84 a f 0xa6	ESC [ 1 6 6 q	
84	AltGr	Ignore	84 g f 0x1ff	Not Returned	
85	Base	PFK 150	85 b f 0x96	ESC [ 1 5 0 q	
85	Shift	PFK 151	85 s f 0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK 152	85 c f 0x98	ESC [ 1 5 2 q	
85	Alt	PFK 153	85 a f 0x99	ESC [ 1 5 3 q	
85	AltGr	Ignore	85 g f 0x1ff	Not Returned	
86	Base	PFK 154	86 b f 0x9a	ESC [ 1 5 4 q	
86	Shift	PFK 155	86 s f 0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK 156	86 c f 0x9c	ESC [ 1 5 6 q	
86	Alt	PFK 157	86 a f 0x9d	ESC [ 1 5 7 q	
86	AltGr	Ignore	86 g f 0x1ff	Not Returned	
87	Not available on keyboard				
88	Not available on keyboard				
89	Base	CUF Cursor Forward	89 b f 0x103	ESC [ C	
89	Shift	PFK 167	89 s f 0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK 168	89 c f 0xa8	ESC [ 1 6 8 q	
89	Alt	PFK 169	89 a f 0xa9	ESC [ 1 6 9 q	
89	AltGr	Ignore	89 g f 0x1ff	Not Returned	
90	Base	NUM LOCK	None	Not Returned	
90	Shift	NUM LOCK	None	Not Returned	
90	Ctrl	DC3 Device Control 3	90 c c < 19	0x13	
90	Alt	PFK 170	90 a f 0xaa	ESC [ 1 7 0 q	
90	AltGr	Ignore	90 g f 0x1ff	Not Returned	
91	Base	⌞ Upper Left Corner	91 b c < 218	0xda	
91	Shift	7 Seven	91 s c < 55	0x37	
91	Ctrl	PFK 172	91 c f 0xac	ESC [ 1 7 2 q	
91	Alt	Alt + Num Entry	None	Return at Alt Break	
91	AltGr	Ignore	91 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
92	Base	┘ Left Edge Int.	92 b c < 195	0xc3	
92	Shift	4 Four	92 s c < 52	0x34	
92	Ctrl	PFK 174	92 c f 0xae	ESC [ 1 7 4 q	
92	Alt	Alt+Num Entry	None	Return at Alt Break	
92	AltGr	Ignore	92 g f 0x1ff	Not Returned	
93	Base	└ Lower Left Corner	93 b c < 192	0xc0	
93	Shift	1 One	93 s c < 49	0x31	
93	Ctrl	PFK 176	93 c f 0xb0	ESC [ 1 7 6 q	
93	Alt	Alt+Num Entry	None	Return at Alt Break	
93	AltGr	Ignore	93 g f 0x1ff	Not Returned	
94	Not available on keyboard				
95	Base	/ Slash	95 b c < 47	0x2f	
95	Shift	/ Slash	95 s c < 47	0x2f	
95	Ctrl	PFK 179	95 c f 0xb3	ESC [ 1 7 9 q	
95	Alt	PFK 180	95 a f 0xb4	ESC [ 1 8 0 q	
95	AltGr	Ignore	95 g f 0x1ff	Not Returned	
96	Base	┘ Top Edge Int.	96 b c < 194	0xc2	
96	Shift	8 Eight	96 s c < 56	0x38	
96	Ctrl	PFK 182	96 c f 0xb6	ESC [ 1 8 2 q	
96	Alt	Alt+Num Entry	None	Return at Alt break	
96	AltGr	Ignore	96 g f 0x1ff	Not Returned	
97	Base	┘ Center Intersection	97 b c < 197	0xc5	
97	Shift	5 Five	97 s c < 53	0x35	
97	Ctrl	PFK 184	97 c f 0xb8	ESC [ 1 8 4 q	
97	Alt	Alt+Num Entry	None	Return at Alt break	
97	AltGr	Ignore	97 g f 0x1ff	Not Returned	
98	Base	└ Bottom Intersection	98 b c < 193	0xc1	
98	Shift	2 Two	98 s c < 50	0x32	
98	Ctrl	PFK 186	98 c f 0xba	ESC [ 1 8 6 q	
98	Alt	Alt+Num Entry	None	Return at Alt break	
98	AltGr	Ignore	98 g f 0x1ff	Not Returned	
99	Base	Vertical Bar	99 b c < 179	0xb3	
99	Shift	0 Zero	99 s c < 48	0x30	
99	Ctrl	PFK 178	99 c f 0xb2	ESC [ 1 7 8 q	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
99	Alt	Alt+Num Entry	None		Return at Alt break
99	AltGr	Ignore	99 g f 0x1ff		Not Returned
100	Base	* Asterisk	100 b c < 42		0x2a
100	Shift	* Asterisk	100 s c < 42		0x2a
100	Ctrl	PFK 187	100 c f 0xbb		ESC [ 1 8 7 q
100	Alt	PFK 188	100 a f 0xbc		ESC [ 1 8 8 q
100	AltGr	Ignore	100 g f 0x1ff		Not Returned
101	Base	⌘ Upper Right Corner	101 b c < 191		0xbf
101	Shift	9 Nine	101 s c < 57		0x39
101	Ctrl	PFK 190	101 c f 0xbe		ESC [ 1 9 0 q
101	Alt	Alt+Num Entry	None		Return at Alt break
101	AltGr	Ignore	101 g f 0x1ff		Not Returned
102	Base	⌞ Right Edge Int.	102 b c < 180		0xb4
102	Shift	6 Six	102 s c < 54		0x36
102	Ctrl	PFK 192	102 c f 0xc0		ESC [ 1 9 2 q
102	Alt	Alt+Num Entry	None		Return at Alt break
102	AltGr	Ignore	102 g f 0x1ff		Not Returned
103	Base	⌟ Lower Right Corner	103 b c < 217		0xd9
103	Shift	3 Three	103 s c < 51		0x33
103	Ctrl	PFK 194	103 c f 0xc2		ESC [ 1 9 4 q
103	Alt	Alt+Num Entry	None		Return at Alt break
103	AltGr	Ignore	103 g f 0x1ff		Not Returned
104	Base	— Horizontal Line	104 b c < 196		0xc4
104	Shift	. Period	104 s c < 46		0x2e
104	Ctrl	PFK 196	104 c f 0xc4		ESC [ 1 9 6 q
104	Alt	PFK 197	104 a f 0xc5		ESC [ 1 9 7 q
104	AltGr	Ignore	104 g f 0x1ff		Not Returned
105	Base	- Hyphen, Minus Sign	105 b c < 45		0x2d
105	Shift	- Hyphen, Minus Sign	105 s c < 45		0x2d
105	Ctrl	PFK 198	105 c f 0xc6		ESC [ 1 9 8 q
105	Alt	PFK 199	105 a f 0xc7		ESC [ 1 9 9 q
105	AltGr	Ignore	105 g f 0x1ff		Not Returned
106	Base	+ Plus Sign	106 b c < 43		0x2b
106	Shift	+ Plus Sign	106 s c < 43		0x2b

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
108	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
115	Base	PFK	4	115	b	f	0x04	ESC [ 0 0 4 q
115	Shift	PFK	16	115	s	f	0x10	ESC [ 0 1 6 q
115	Ctrl	PFK	28	115	c	f	0x1c	ESC [ 0 2 8 q
115	Alt	PFK	40	115	a	f	0x28	ESC [ 0 4 0 q
115	AltGr	Ignore		115	g	f	0x1ff	Not Returned
116	Base	PFK	5	116	b	f	0x05	ESC [ 0 0 5 q
116	Shift	PFK	17	116	s	f	0x11	ESC [ 0 1 7 q
116	Ctrl	PFK	29	116	c	f	0x1d	ESC [ 0 2 9 q
116	Alt	PFK	41	116	a	f	0x29	ESC [ 0 4 1 q
116	AltGr	Ignore		116	g	f	0x1ff	Not Returned
117	Base	PFK	6	117	b	f	0x06	ESC [ 0 0 6 q
117	Shift	PFK	18	117	s	f	0x12	ESC [ 0 1 8 q
117	Ctrl	PFK	30	117	c	f	0x1e	ESC [ 0 3 0 q
117	Alt	PFK	42	117	a	f	0x2a	ESC [ 0 4 2 q
117	AltGr	Ignore		117	g	f	0x1ff	Not Returned
118	Base	PFK	7	118	b	f	0x07	ESC [ 0 0 7 q
118	Shift	PFK	19	118	s	f	0x13	ESC [ 0 1 9 q
118	Ctrl	PFK	31	118	c	f	0x1f	ESC [ 0 3 1 q
118	Alt	PFK	43	118	a	f	0x2b	ESC [ 0 4 3 q
118	AltGr	Ignore		118	g	f	0x1ff	Not Returned
119	Base	PFK	8	119	b	f	0x08	ESC [ 0 0 8 q
119	Shift	PFK	20	119	s	f	0x14	ESC [ 0 2 0 q
119	Ctrl	PFK	32	119	c	f	0x20	ESC [ 0 3 2 q
119	Alt	PFK	44	119	a	f	0x2c	ESC [ 0 4 4 q
119	AltGr	Ignore		119	g	f	0x1ff	Not Returned
120	Base	PFK	9	120	b	f	0x09	ESC [ 0 0 9 q
120	Shift	PFK	21	120	s	f	0x15	ESC [ 0 2 1 q
120	Ctrl	PFK	33	120	c	f	0x21	ESC [ 0 3 3 q
120	Alt	PFK	45	120	a	f	0x2d	ESC [ 0 4 5 q
120	AltGr	Ignore		120	g	f	0x1ff	Not Returned
121	Base	PFK	10	121	b	f	0x0a	ESC [ 0 1 0 q
121	Shift	PFK	22	121	s	f	0x16	ESC [ 0 2 2 q
121	Ctrl	PFK	34	121	c	f	0x22	ESC [ 0 3 4 q
121	Alt	PFK	46	121	a	f	0x2e	ESC [ 0 4 6 q
121	AltGr	Ignore		121	g	f	0x1ff	Not Returned



Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q
122	AltGr	Ignore		122	g	f	0x1ff	Not Returned
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q
123	AltGr	Ignore		123	g	f	0x1ff	Not Returned
124	Base	PFK	209	124	b	f	0xd1	ESC [ 2 0 9 q
124	Shift	PFK	210	124	s	f	0xd2	ESC [ 2 1 0 q
124	Ctrl	PFK	211	124	c	f	0xd3	ESC [ 2 1 1 q
124	Alt	PFK	212	124	a	f	0xd4	ESC [ 2 1 2 q
124	AltGr	Ignore		124	g	f	0x1ff	Not Returned
125	Base	PFK	213	125	b	f	0xd5	ESC [ 2 1 3 q
125	Shift	PFK	214	125	s	f	0xd6	ESC [ 2 1 4 q
125	Ctrl	PFK	215	125	c	f	0xd7	ESC [ 2 1 5 q
125	Alt	PFK	216	125	a	f	0xd8	ESC [ 2 1 6 q
125	AltGr	Ignore		125	g	f	0x1ff	Not Returned
126	Base	PFK	217	126	b	f	0xd9	ESC [ 2 1 7 q
126	Shift	PFK	218	126	s	f	0xda	ESC [ 2 1 8 q
126	Ctrl	DEL		126	c	c	< 127	0x7f
126	Alt	DEL		126	a	c	< 127	0x7f
126	AltGr	Ignore		126	g	f	0x1ff	Not Returned

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# Appendix G. Finnish/Swedish Keyboard Layout and Table

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This appendix contains the keyboard layout and keyboard table information for the Finnish/Swedish keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

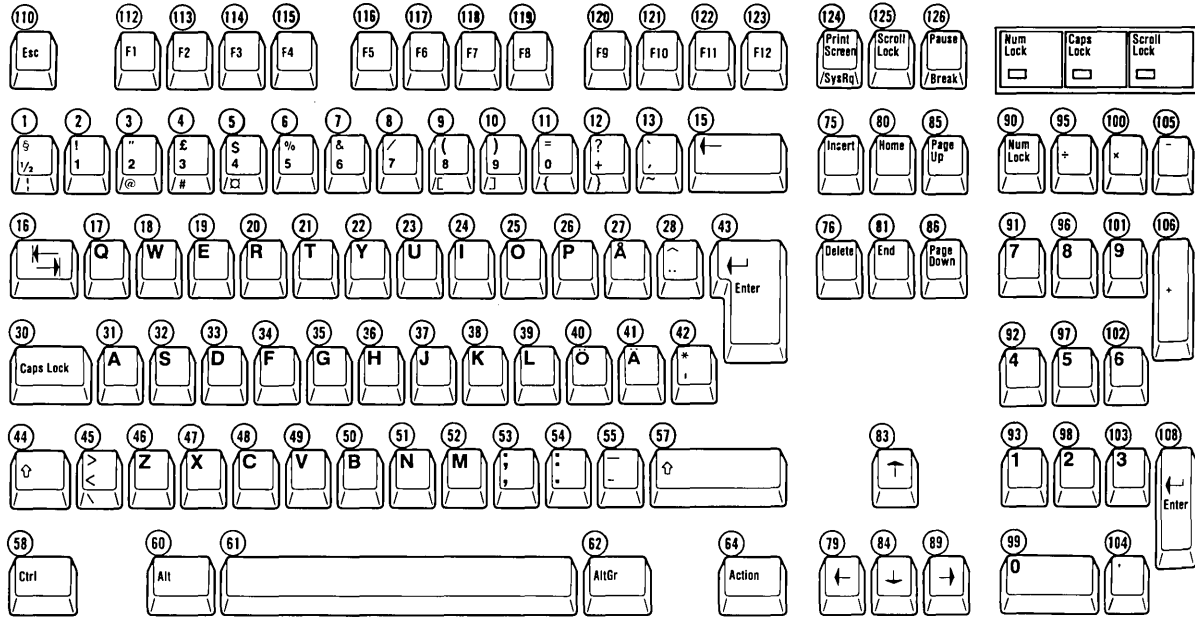
**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the **Alt** key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.

# Finnish/Swedish Keyboard Layout



## Finnish/Swedish Keyboard Table

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
1	Base	½ One Half Fraction	1 b c < 171	0xab	
1	Shift	§ Section Symbol	1 s c < 245	0xf5	
1	Ctrl	PFK 57	1 c f 0x39	ESC [ 0 5 7 q	
1	Alt	PFK 115	1 a f 0x73	ESC [ 1 1 5 q	
1	AltGr	Pipe Symbol	1 g c < 124	0x7c	
2	Base	1 One	2 b c < 49	0x31	
2	Shift	! Exclamation Point	2 s c < 33	0x21	
2	Ctrl	PFK 49	2 c f 0x31	ESC [ 0 4 9 q	
2	Alt	PFK 58	2 a f 0x3a	ESC [ 0 5 8 q	
2	AltGr	Ignore	2 g f 0x1ff	Not Returned	
3	Base	2 Two	3 b c < 50	0x32	
3	Shift	" Double Quote	3 s c < 34	0x22	
3	Ctrl	NUL Null	3 c c < 0	0x00	
3	Alt	PFK 59	3 a f 0x3b	ESC [ 0 5 9 q	
3	AltGr	@ At Sign	3 g c < 64	0x40	
4	Base	3 Three	4 b c < 51	0x33	
4	Shift	£ Pounds Sterling	4 s c < 156	0x9c	
4	Ctrl	PFK 50	4 c f 0x32	ESC [ 0 5 0 q	
4	Alt	PFK 60	4 a f 0x3c	ESC [ 0 6 0 q	
4	AltGr	# Number Sign	4 g c < 35	0x23	
5	Base	4 Four	5 b c < 52	0x34	
5	Shift	\$ Dollar Sign	5 s c < 36	0x24	
5	Ctrl	PFK 51	5 c f 0x33	ESC [ 0 5 1 q	
5	Alt	PFK 61	5 a f 0x3d	ESC [ 0 6 1 q	
5	AltGr	¤ Int. Curr. Symbol	5 g c < 207	0xcf	
6	Base	5 Five	6 b c < 53	0x35	
6	Shift	% Percent Sign	6 s c < 37	0x25	
6	Ctrl	PFK 52	6 c f 0x34	ESC [ 0 5 2 q	
6	Alt	PFK 62	6 a f 0x3e	ESC [ 0 6 2 q	
6	AltGr	Ignore	6 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
7	Base	6	Six	7	b	c	< 54	0x36	
7	Shift	&	Ampersand	7	s	c	< 38	0x26	
7	Ctrl	SS2	Single Shift 2	7	c	c	< 30	0x1e	
7	Alt	PFK	63	7	a	f	0x3f	ESC [ 0 6 3 q	
7	AltGr	Ignore		7	g	f	0x1ff	Not Returned	
8	Base	7	Seven	8	b	c	< 55	0x37	
8	Shift	/	Slash	8	s	c	< 47	0x2f	
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
8	AltGr	Ignore		8	g	f	0x1ff	Not Returned	
9	Base	8	Eight	9	b	c	< 56	0x38	
9	Shift	(	Left Parenthesis	9	s	c	< 40	0x28	
9	Ctrl	ESC	Escape	9	c	c	< 27	0x1b	
9	Alt	PFK	65	9	a	f	0x41	ESC [ 0 6 5 q	
9	AltGr	[	Left Bracket	9	g	c	< 91	0x5b	
10	Base	9	Nine	10	b	c	< 57	0x39	
10	Shift	)	Right Parenthesis	10	s	c	< 41	0x29	
10	Ctrl	SS3	Single Shift 3	10	c	c	< 29	0x1d	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
10	AltGr	]	Right Bracket	10	g	c	< 93	0x5d	
11	Base	0	Zero	11	b	c	< 48	0x30	
11	Shift	=	Equal Sign	11	s	c	< 61	0x3d	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
11	AltGr	{	Left Brace	11	g	c	< 123	0x7b	
12	Base	+	Plus Sign	12	b	c	< 43	0x2b	
12	Shift	?	Question Mark	12	s	c	< 63	0x3f	
12	Ctrl	PFK	112	12	c	f	0x70	ESC [ 1 1 2 q	
12	Alt	PFK	113	12	a	f	0x71	ESC [ 1 1 3 q	
12	AltGr	}	Right Brace	12	g	c	< 125	0x7d	
13	Base	'	Acute Accent	13	b	d	< 239	0xef	DK
13	Shift	`	Grave Accent	13	s	d	< 96	0x60	DK
13	Ctrl	PFK	69	13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK	70	13	a	f	0x46	ESC [ 0 7 0 q	
13	AltGr	~	Tilde Accent	13	g	d	< 126	0x7e	DK

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes	
			nnn s t -----			
14		Not available on keyboard				
15	Base	BS	Back Space	15 b c < 8	0x08	
15	Shift	BS	Back Space	15 s c < 8	0x08	
15	Ctrl	DEL	Delete	15 c c < 127	0x7f	
15	Alt	PFK 71		15 a f 0x47	ESC [ 0 7 1 q	
15	AltGr	Ignore		15 g f 0x1ff	Not Returned	
16	Base	HT	Horizontal Tab	16 b c < 9	0x09	
16	Shift	CBT	Cursor Back Tab	16 s f 0x105	ESC [ Z	
16	Ctrl	PFK 72		16 c f 0x48	ESC [ 0 7 2 q	
16	Alt	PFK 73		16 a f 0x49	ESC [ 0 7 3 q	
16	AltGr	Ignore		16 g f 0x1ff	Not Returned	
17	Base	q	Lowercase q	17 b c < 113	0x71	CL
17	Shift	Q	Uppercase q	17 s c < 81	0x51	
17	Ctrl	DC1	Device Control 1	17 c c < 17	0x11	
17	Alt	PFK 74		17 a f 0x4a	ESC [ 0 7 4 q	
17	AltGr	Ignore		17 g f 0x1ff	Not Returned	
18	Base	w	Lowercase w	18 b c < 119	0x77	CL
18	Shift	W	Uppercase w	18 s c < 87	0x57	
18	Ctrl	ETB	End Trans Block	18 c c < 23	0x17	
18	Alt	PFK 75		18 a f 0x4b	ESC [ 0 7 5 q	
18	AltGr	Ignore		18 g f 0x1ff	Not Returned	
19	Base	e	Lowercase e	19 b c < 101	0x65	CL
19	Shift	E	Uppercase e	19 s c < 69	0x45	
19	Ctrl	ENQ	Enquiry	19 c c < 5	0x05	
19	Alt	PFK 76		19 a f 0x4c	ESC [ 0 7 6 q	
19	AltGr	Ignore		19 g f 0x1ff	Not Returned	
20	Base	r	Lowercase r	20 b c < 114	0x72	CL
20	Shift	R	Uppercase r	20 s c < 82	0x52	
20	Ctrl	DC2	Device Control 2	20 c c < 18	0x12	
20	Alt	PFK 77		20 a f 0x4d	ESC [ 0 7 7 q	
20	AltGr	Ignore		20 g f 0x1ff	Not Returned	
21	Base	t	Lowercase t	21 b c < 116	0x74	CL
21	Shift	T	Uppercase t	21 s c < 84	0x54	
21	Ctrl	DC4	Device Control 4	21 c c < 20	0x14	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore		21	g	f	0x1ff	Not Returned	
22	Base	y	Lowercase y	22	b	c	< 121	0x79	CL
22	Shift	Y	Uppercase y	22	s	c	< 89	0x59	
22	Ctrl	EM	End of Media	22	c	c	< 25	0x19	
22	Alt	PFK	79	22	a	f	0x4f	ESC [ 0 7 9 q	
22	AltGr	Ignore		22	g	f	0x1ff	Not Returned	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore		23	g	f	0x1ff	Not Returned	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore		24	g	f	0x1ff	Not Returned	
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
25	AltGr	Ignore		25	g	f	0x1ff	Not Returned	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
26	AltGr	Ignore		26	g	f	0x1ff	Not Returned	
27	Base	â	a Overcircle Small	27	b	c	< 134	0x86	CL
27	Shift	Å	a Overcircle Capital	27	s	c	< 143	0x8f	
27	Ctrl	PFK	54	27	c	c	0x36	ESC [ 0 5 4 q	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
27	AltGr	Ignore		27	g	f	0x1ff	Not Returned	
28	Base	¨	Diaeresis Accent	28	b	d	< 249	0xf9	DK
28	Shift	^	Circumflex Accent	28	s	d	< 94	0x5e	DK

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
28	Ctrl	PFK 55	28 c f 0x37	ESC [ 0 5 5 q	
28	Alt	PFK 85	28 a f 0x55	ESC [ 0 8 5 q	
28	AltGr	Ignore	28 g f 0x1ff	Not Returned	
29	Not available on keyboard				
30	Base	Caps Lock	None	Not Returned	
30	Shift	Caps Lock	None	Not Returned	
30	Ctrl	Caps Lock	None	Not Returned	
30	Alt	Caps Lock	None	Not Returned	
30	AltGr	Caps Lock	None	Not Returned	
31	Base	a Lowercase a	31 b c < 97	0x61	CL
31	Shift	A Uppercase a	31 s c < 65	0x41	
31	Ctrl	SOH Start of Header	31 c c < 1	0x01	
31	Alt	PFK 87	31 a f 0x57	ESC [ 0 8 7 q	
31	AltGr	Ignore	31 g f 0x1ff	Not Returned	
32	Base	s Lowercase s	32 b c < 115	0x73	CL
32	Shift	S Uppercase s	32 s c < 83	0x53	
32	Ctrl	DC3 Device Control 3	32 c c < 19	0x13	
32	Alt	PFK 88	32 a f 0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore	32 g f 0x1ff	Not Returned	
33	Base	d Lowercase d	33 b c < 100	0x64	CL
33	Shift	D Uppercase d	33 s c < 68	0x44	
33	Ctrl	EOT End of Transmission	33 c c < 4	0x04	
33	Alt	PFK 89	33 a f 0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore	33 g f 0x1ff	Not Returned	
34	Base	f Lowercase f	34 b c < 102	0x66	CL
34	Shift	F Uppercase f	34 s c < 70	0x46	
34	Ctrl	ACK Acknowledge	34 c c < 6	0x06	
34	Alt	PFK 90	34 a f 0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore	34 g f 0x1ff	Not Returned	
35	Base	g Lowercase g	35 b c < 103	0x67	CL
35	Shift	G Uppercase g	35 s c < 71	0x47	
35	Ctrl	BEL Bell	35 c c < 7	0x07	
35	Alt	PFK 91	35 a f 0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore	35 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK 92		36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK 93		37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK 94		38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK 95		39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	ö	o Diaeresis Small	40	b	c	< 148	0x94	CL
40	Shift	Ö	o Diaeresis Capital	40	s	c	< 153	0x99	
40	Ctrl	PFK 96		40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK 97		40	a	f	0x61	ESC [ 0 9 7 q	
40	AltGr	Ignore		40	g	f	0x1ff	Not Returned	
41	Base	ä	a Diaeresis Small	41	b	c	< 132	0x84	CL
41	Shift	Ä	a Diaeresis Capital	41	s	c	< 142	0x8e	
41	Ctrl	PFK 98		41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK 99		41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	Ignore		41	g	f	0x1ff	Not Returned	
42	Base	'	Quote, Apostrophe	41	b	c	< 39	0x27	
42	Shift	*	Asterisk	39	s	c	< 42	0x2a	
42	Ctrl	Ignore		42	c	f	0x1ff	Not Returned	
42	Alt	Ignore		42	a	f	0x1ff	Not Returned	
42	AltGr	Ignore		42	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
43	Base	CR Carriage Return	43 b c < 13	0x0d	
43	Shift	CR Carriage Return	43 s c < 13	0x0d	
43	Ctrl	CR Carriage Return	43 c c < 13	0x0d	
43	Alt	PFK 100	43 a f 0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore	43 g f 0x1ff	Not Returned	
44	Base	Shift (Left)	None	Not Returned	
44	Shift	Shift (Left)	None	Not Returned	
44	Ctrl	Shift (Left)	None	Not Returned	
44	Alt	Shift (Left)	None	Reserved for IBM 5080	
44	AltGr	Shift (Left)	None	Not Returned	
45	Base	< Less Than Sign	45 b c < 60	0x3c	
45	Shift	> Greater Than Sign	45 s c < 62	0x3e	
45	Ctrl	SS4 Single Shift 4	45 c c < 28	0x1c	
45	Alt	PFK 86	45 a f 0x56	ESC [ 0 8 6 q	
45	AltGr	\ Reverse Slash	45 g c < 92	0x5c	
46	Base	z Lowercase z	46 b c < 122	0x7a	CL
46	Shift	Z Uppercase z	46 s c < 90	0x5a	
46	Ctrl	SUB Substitute Char.	46 c c < 26	0x1a	
46	Alt	PFK 101	46 a f 0x65	ESC [ 1 0 1 q	
46	AltGr	Ignore	46 g f 0x1ff	Not Returned	
47	Base	x Lowercase x	47 b c < 120	0x78	CL
47	Shift	X Uppercase x	47 s c < 88	0x58	
47	Ctrl	CAN Cancel	47 c c < 24	0x18	
47	Alt	PFK 102	47 a f 0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore	47 g f 0x1ff	Not Returned	
48	Base	c Lowercase c	48 b c < 99	0x63	CL
48	Shift	C Uppercase c	48 s c < 67	0x43	
48	Ctrl	ETX End of Text	48 c c < 3	0x03	
48	Alt	PFK 103	48 a f 0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore	48 g f 0x1ff	Not Returned	
49	Base	v Lowercase v	49 b c < 118	0x76	CL
49	Shift	V Uppercase v	49 s c < 86	0x56	
49	Ctrl	SYN Synch Idle	49 c c < 22	0x16	
49	Alt	PFK 104	49 a f 0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore	49 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes	
				nnn	s	t			-----
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK 105		50	a	f	0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore		50	g	f	0x1ff	Not Returned	
51	Base	n	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK 106		51	a	f	0x6a	ESC [ 1 0 6 q	
51	AltGr	Ignore		51	g	f	0x1ff	Not Returned	
52	Base	m	Lowercase m	52	b	c	< 109	0x6d	CL
52	Shift	M	Uppercase m	52	s	c	< 77	0x4d	
52	Ctrl	CR	Carriage Return	52	c	c	< 13	0x0d	
52	Alt	PFK 107		52	a	f	0x66	ESC [ 1 0 7 q	
52	AltGr	Ignore		52	g	f	0x1ff	Not Returned	
53	Base	,	Comma	53	b	c	< 44	0x2c	
53	Shift	;	Semicolon	53	s	c	< 59	0x3b	
53	Ctrl	PFK 108		53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK 109		53	a	f	0x6d	ESC [ 1 0 9 q	
53	AltGr	Ignore		53	g	f	0x1ff	Not Returned	
54	Base	.	Period	54	b	c	< 46	0x2e	
54	Shift	:	Colon	54	s	c	< 58	0x3a	
54	Ctrl	PFK 110		54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK 111		54	a	f	0x6f	ESC [ 1 1 1 q	
54	AltGr	Ignore		54	g	f	0x1ff	Not Returned	
55	Base	-	Hyphen, Minus Sign	55	b	c	< 45	0x2d	
55	Shift	_	Underscore	55	s	c	< 95	0x5f	
55	Ctrl	SS1	Single Shift 1	55	c	c	< 31	0x1f	
55	Alt	PFK 68		55	a	f	0x44	ESC [ 0 6 8 q	
55	AltGr	Ignore		55	g	f	0x1ff	Not Returned	
56	Not available on keyboard								
57	Base	Shift (Right)		None			Not Returned		
57	Shift	Shift (Right)		None			Not Returned		
57	Ctrl	Shift (Right)		None			Not Returned		

Key Posn.	Shift	Assignment	Keyboard Definition n n n s t -----	Returned String	Notes
57	Alt	Switch Keyboard	None	Reserved for IBM 5080	
57	AltGr	Shift (Right)	None	Not Returned	
58	Base	Control	None	Not Returned	
58	Shift	Control	None	Not Returned	
58	Ctrl	Control	None	Not Returned	
58	Alt	Control	None	Not Returned	
58	AltGr	Control	None	Not Returned	
59	Not available on keyboard				
60	Base	Alternate Shift	None	Not Returned	
60	Shift	Alternate Shift	None	Not Returned	
60	Ctrl	Alternate Shift	None	Not Returned	
60	Alt	Alternate Shift	None	Not Returned	
60	AltGr	Alternate Shift	None	Not Returned	
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff	Not Returned	
62	Base	Alternate Graphic Shift	None	Not Returned	
62	Shift	Alternate Graphic Shift	None	Not Returned	
62	Ctrl	Alternate Graphic Shift	None	Not Returned	
62	Alt	Alternate Graphic Shift	None	Not Returned	
62	AltGr	Alternate Graphic Shift	None	Not Returned	
63	Not available on keyboard				
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None	VTRM Previous Window	
64	Ctrl	VTRM Windows Window	None	VTRM Windows Window	
64	Alt	VTRM Next Window	None	VTRM Next Window	
64	AltGr	VTRM Next Window	None	VTRM Next Window	
65 - 74	Not available on keyboard				
75	Base	PFK 139 INS Toggle	75 b f 0x8b	ESC [ 1 3 9 q	
75	Shift	PFK 139 INS Toggle	75 s f 0x8b	ESC [ 1 3 9 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q	
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q	
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned	
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P	
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P	
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q	
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M	
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned	
77	Not available on keyboard								
78	Not available on keyboard								
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D	
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q	
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q	
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q	
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned	
80	Base	HOME		80	b	f	0x108	ESC [ H	
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q	
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q	
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q	
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned	
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q	
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q	
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q	
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q	
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned	
82	Not available on keyboard								
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A	
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q	
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q	
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q	
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
84	Base	CUD	Cursor Down	84	b	f	0x102	ESC [ B	
84	Shift	PFK	164	84	s	f	0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK	165	84	c	f	0xa5	ESC [ 1 6 5 q	
84	Alt	PFK	166	84	a	f	0xa6	ESC [ 1 6 6 q	
84	AltGr	Ignore		84	g	f	0x1ff	Not Returned	
85	Base	PFK	150	85	b	f	0x96	ESC [ 1 5 0 q	
85	Shift	PFK	151	85	s	f	0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK	152	85	c	f	0x98	ESC [ 1 5 2 q	
85	Alt	PFK	153	85	a	f	0x99	ESC [ 1 5 3 q	
85	AltGr	Ignore		85	g	f	0x1ff	Not Returned	
86	Base	PFK	154	86	b	f	0x9a	ESC [ 1 5 4 q	
86	Shift	PFK	155	86	s	f	0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK	156	86	c	f	0x9c	ESC [ 1 5 6 q	
86	Alt	PFK	157	86	a	f	0x9d	ESC [ 1 5 7 q	
86	AltGr	Ignore		86	g	f	0x1ff	Not Returned	
87	Not available on keyboard								
88	Not available on keyboard								
89	Base	CUF	Cursor Forward	89	b	f	0x103	ESC [ C	
89	Shift	PFK	167	89	s	f	0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK	168	89	c	f	0xa8	ESC [ 1 6 8 q	
89	Alt	PFK	169	89	a	f	0xa9	ESC [ 1 6 9 q	
89	AltGr	Ignore		89	g	f	0x1ff	Not Returned	
90	Base	NUM LOCK		None				Not Returned	
90	Shift	NUM LOCK		None				Not Returned	
90	Ctrl	DC3	Device Control 3	90	c	c	< 19	0x13	
90	Alt	PFK	170	90	a	f	0xaa	ESC [ 1 7 0 q	
90	AltGr	Ignore		90	g	f	0x1ff	Not Returned	
91	Base	┌	Upper Left Corner	91	b	c	< 218	0xda	
91	Shift	7	Seven	91	s	c	< 55	0x37	
91	Ctrl	PFK	172	91	c	f	0xac	ESC [ 1 7 2 q	
91	Alt	Alt+Num Entry		None				Return at Alt Break	
91	AltGr	Ignore		91	g	f	0x1ff	Not Returned	



Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
92	Base	└ Left Edge Int.	92	b	c	< 195	0xc3	
92	Shift	4 Four	92	s	c	< 52	0x34	
92	Ctrl	PFK 174	92	c	f	0xae	ESC [ 1 7 4 q	
92	Alt	Alt+Num Entry	None				Return at Alt Break	
92	AltGr	Ignore	92	g	f	0x1ff	Not Returned	
93	Base	└ Lower Left Corner	93	b	c	< 192	0xc0	
93	Shift	1 One	93	s	c	< 49	0x31	
93	Ctrl	PFK 176	93	c	f	0xb0	ESC [ 1 7 6 q	
93	Alt	Alt+Num Entry	None				Return at Alt Break	
93	AltGr	Ignore	93	g	f	0x1ff	Not Returned	
94	Not available on keyboard							
95	Base	÷ Division Sign	95	b	c	< 246	0xf6	
95	Shift	÷ Division Sign	95	s	c	< 246	0xf6	
95	Ctrl	PFK 179	95	c	f	0xb3	ESC [ 1 7 9 q	
95	Alt	PFK 180	95	a	f	0xb4	ESC [ 1 8 0 q	
95	AltGr	Ignore	95	g	f	0x1ff	Not Returned	
96	Base	└ Top Edge Int.	96	b	c	< 194	0xc2	
96	Shift	8 Eight	96	s	c	< 56	0x38	
96	Ctrl	PFK 182	96	c	f	0xb6	ESC [ 1 8 2 q	
96	Alt	Alt+Num Entry	None				Return at Alt break	
96	AltGr	Ignore	96	g	f	0x1ff	Not Returned	
97	Base	└ Center Intersection	97	b	c	< 197	0xc5	
97	Shift	5 Five	97	s	c	< 53	0x35	
97	Ctrl	PFK 184	97	c	f	0xb8	ESC [ 1 8 4 q	
97	Alt	Alt+Num Entry	None				Return at Alt break	
97	AltGr	Ignore	97	g	f	0x1ff	Not Returned	
98	Base	└ Bottom Intersection	98	b	c	< 193	0xc1	
98	Shift	2 Two	98	s	c	< 50	0x32	
98	Ctrl	PFK 186	98	c	f	0xba	ESC [ 1 8 6 q	
98	Alt	Alt+Num Entry	None				Return at Alt break	
98	AltGr	Ignore	98	g	f	0x1ff	Not Returned	
99	Base	Vertical Bar	99	b	c	< 179	0xb3	
99	Shift	0 Zero	99	s	c	< 48	0x30	
99	Ctrl	PFK 178	99	c	f	0xb2	ESC [ 1 7 8 q	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
99	Alt	Alt+Num Entry	None				Return at Alt break	
99	AltGr	Ignore	99	g	f	0x1ff	Not Returned	
100	Base	× Multiplication Sign	100	b	c	< 158	0x9e	
100	Shift	× Multiplication Sign	100	s	c	< 158	0x9e	
100	Ctrl	PFK 187	100	c	f	0xbb	ESC [ 1 8 7 q	
100	Alt	PFK 188	100	a	f	0xbc	ESC [ 1 8 8 q	
100	AltGr	Ignore	100	g	f	0x1ff	Not Returned	
101	Base	⌘ Upper Right Corner	101	b	c	< 191	0xbf	
101	Shift	9 Nine	101	s	c	< 57	0x39	
101	Ctrl	PFK 190	101	c	f	0xbe	ESC [ 1 9 0 q	
101	Alt	Alt+Num Entry	None				Return at Alt break	
101	AltGr	Ignore	101	g	f	0x1ff	Not Returned	
102	Base	⌞ Right Edge Int.	102	b	c	< 180	0xb4	
102	Shift	6 Six	102	s	c	< 54	0x36	
102	Ctrl	PFK 192	102	c	f	0xc0	ESC [ 1 9 2 q	
102	Alt	Alt+Num Entry	None				Return at Alt break	
102	AltGr	Ignore	102	g	f	0x1ff	Not Returned	
103	Base	⌞ Lower Right Corner	103	b	c	< 217	0xd9	
103	Shift	3 Three	103	s	c	< 51	0x33	
103	Ctrl	PFK 194	103	c	f	0xc2	ESC [ 1 9 4 q	
103	Alt	Alt+Num Entry	None				Return at Alt break	
103	AltGr	Ignore	103	g	f	0x1ff	Not Returned	
104	Base	— Horizontal Line	104	b	c	< 196	0xc4	
104	Shift	, Comma	104	s	c	< 44	0x2c	
104	Ctrl	PFK 196	104	c	f	0xc4	ESC [ 1 9 6 q	
104	Alt	PFK 197	104	a	f	0xc5	ESC [ 1 9 7 q	
104	AltGr	Ignore	104	g	f	0x1ff	Not Returned	
105	Base	- Hyphen, Minus Sign	105	b	c	< 45	0x2d	
105	Shift	- Hyphen, Minus Sign	105	s	c	< 45	0x2d	
105	Ctrl	PFK 198	105	c	f	0xc6	ESC [ 1 9 8 q	
105	Alt	PFK 199	105	a	f	0xc7	ESC [ 1 9 9 q	
105	AltGr	Ignore	105	g	f	0x1ff	Not Returned	
106	Base	+ Plus Sign	106	b	c	< 43	0x2b	
106	Shift	+ Plus Sign	106	s	c	< 43	0x2b	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
108	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
115	Base	PFK	4	115	b	f	0x04	ESC [ 0 0 4 q
115	Shift	PFK	16	115	s	f	0x10	ESC [ 0 1 6 q
115	Ctrl	PFK	28	115	c	f	0x1c	ESC [ 0 2 8 q
115	Alt	PFK	40	115	a	f	0x28	ESC [ 0 4 0 q
115	AltGr	Ignore		115	g	f	0x1ff	Not Returned
116	Base	PFK	5	116	b	f	0x05	ESC [ 0 0 5 q
116	Shift	PFK	17	116	s	f	0x11	ESC [ 0 1 7 q
116	Ctrl	PFK	29	116	c	f	0x1d	ESC [ 0 2 9 q
116	Alt	PFK	41	116	a	f	0x29	ESC [ 0 4 1 q
116	AltGr	Ignore		116	g	f	0x1ff	Not Returned
117	Base	PFK	6	117	b	f	0x06	ESC [ 0 0 6 q
117	Shift	PFK	18	117	s	f	0x12	ESC [ 0 1 8 q
117	Ctrl	PFK	30	117	c	f	0x1e	ESC [ 0 3 0 q
117	Alt	PFK	42	117	a	f	0x2a	ESC [ 0 4 2 q
117	AltGr	Ignore		117	g	f	0x1ff	Not Returned
118	Base	PFK	7	118	b	f	0x07	ESC [ 0 0 7 q
118	Shift	PFK	19	118	s	f	0x13	ESC [ 0 1 9 q
118	Ctrl	PFK	31	118	c	f	0x1f	ESC [ 0 3 1 q
118	Alt	PFK	43	118	a	f	0x2b	ESC [ 0 4 3 q
118	AltGr	Ignore		118	g	f	0x1ff	Not Returned
119	Base	PFK	8	119	b	f	0x08	ESC [ 0 0 8 q
119	Shift	PFK	20	119	s	f	0x14	ESC [ 0 2 0 q
119	Ctrl	PFK	32	119	c	f	0x20	ESC [ 0 3 2 q
119	Alt	PFK	44	119	a	f	0x2c	ESC [ 0 4 4 q
119	AltGr	Ignore		119	g	f	0x1ff	Not Returned
120	Base	PFK	9	120	b	f	0x09	ESC [ 0 0 9 q
120	Shift	PFK	21	120	s	f	0x15	ESC [ 0 2 1 q
120	Ctrl	PFK	33	120	c	f	0x21	ESC [ 0 3 3 q
120	Alt	PFK	45	120	a	f	0x2d	ESC [ 0 4 5 q
120	AltGr	Ignore		120	g	f	0x1ff	Not Returned
121	Base	PFK	10	121	b	f	0x0a	ESC [ 0 1 0 q
121	Shift	PFK	22	121	s	f	0x16	ESC [ 0 2 2 q
121	Ctrl	PFK	34	121	c	f	0x22	ESC [ 0 3 4 q
121	Alt	PFK	46	121	a	f	0x2e	ESC [ 0 4 6 q
121	AltGr	Ignore		121	g	f	0x1ff	Not Returned

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q	
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q	
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q	
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q	
122	AltGr	Ignore		122	g	f	0x1ff	Not Returned	
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q	
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q	
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q	
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q	
123	AltGr	Ignore		123	g	f	0x1ff	Not Returned	
124	Base	PFK	209	124	b	f	0xd1	ESC [ 2 0 9 q	
124	Shift	PFK	210	124	s	f	0xd2	ESC [ 2 1 0 q	
124	Ctrl	PFK	211	124	c	f	0xd3	ESC [ 2 1 1 q	
124	Alt	PFK	212	124	a	f	0xd4	ESC [ 2 1 2 q	
124	AltGr	Ignore		124	g	f	0x1ff	Not Returned	
125	Base	PFK	213	125	b	f	0xd5	ESC [ 2 1 3 q	
125	Shift	PFK	214	125	s	f	0xd6	ESC [ 2 1 4 q	
125	Ctrl	PFK	215	125	c	f	0xd7	ESC [ 2 1 5 q	
125	Alt	PFK	216	125	a	f	0xd8	ESC [ 2 1 6 q	
125	AltGr	Ignore		125	g	f	0x1ff	Not Returned	
126	Base	PFK	217	126	b	f	0xd9	ESC [ 2 1 7 q	
126	Shift	PFK	218	126	s	f	0xda	ESC [ 2 1 8 q	
126	Ctrl	DEL		126	c	c	< 127	0x7f	
126	Alt	DEL		126	a	c	< 127	0x7f	
126	AltGr	Ignore		126	g	f	0x1ff	Not Returned	

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## **Appendix H. French Keyboard Layout and Table**

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This appendix contains the keyboard layout and keyboard table information for the French keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

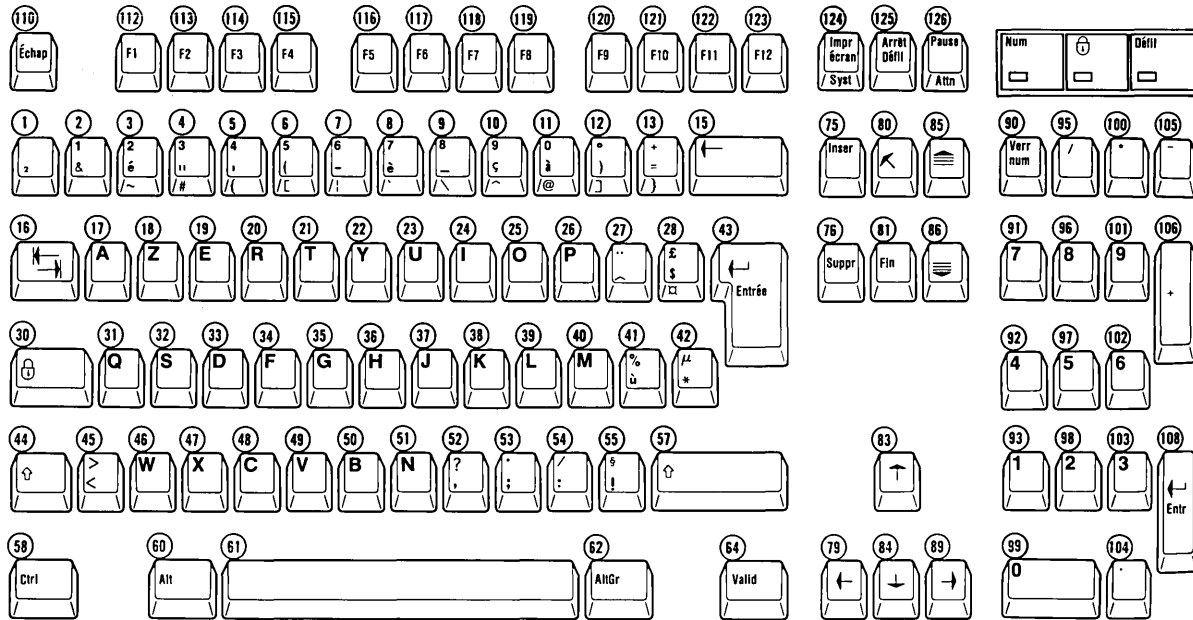
**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the **Alt** key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.



# French Keyboard Layout



## French Keyboard Table

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
1	Base	²	Superscript 2	1	b	c	< 253	0xfd	CL
1	Shift	Ignore		1	s	f	0x1ff	Not Returned	
1	Ctrl	PFK 57		1	c	f	0x39	ESC [ 0 5 7 q	
1	Alt	PFK 115		1	a	f	0x73	ESC [ 1 1 5 q	
1	AltGr	Ignore		1	g	f	0x1ff	Not Returned	
2	Base	&	Ampersand	2	b	c	< 38	0x26	CL
2	Shift	1	One	2	s	c	< 49	0x31	
2	Ctrl	PFK 49		2	c	f	0x31	ESC [ 0 4 9 q	
2	Alt	PFK 58		2	a	f	0x3a	ESC [ 0 5 8 q	
2	AltGr	Ignore		2	g	f	0x1ff	Not Returned	
3	Base	é	e Acute Small	3	b	c	< 130	0x82	CL
3	Shift	2	Two	3	s	c	< 50	0x32	
3	Ctrl	NUL	Null	3	c	c	< 0	0x00	
3	Alt	PFK 59		3	a	f	0x3b	ESC [ 0 5 9 q	
3	AltGr	~	Tilde Accent	3	g	c	< 126	0x7e	DK
4	Base	"	Double Quote	4	b	c	< 34	0x22	CL
4	Shift	3	Three	4	s	c	< 51	0x33	
4	Ctrl	PFK 50		4	c	f	0x32	ESC [ 0 5 0 q	
4	Alt	PFK 60		4	a	f	0x3c	ESC [ 0 6 0 q	
4	AltGr	#	Number Sign	4	g	c	< 35	0x23	
5	Base	'	Quote/Apostrophe	5	b	c	< 39	0x27	CL
5	Shift	4	Four	5	s	c	< 52	0x34	
5	Ctrl	PFK 51		5	c	f	0x33	ESC [ 0 5 1 q	
5	Alt	PFK 61		5	a	f	0x3d	ESC [ 0 6 1 q	
5	AltGr	{	Left Brace	5	g	c	< 123	0x7b	
6	Base	(	Left Parenthesis	6	b	c	< 40	0x28	CL
6	Shift	5	Five	6	s	c	< 53	0x35	
6	Ctrl	ESC	Escape	6	c	c	< 27	0x1b	
6	Alt	PFK 62		6	a	f	0x3e	ESC [ 0 6 2 q	
6	AltGr	[	Left Bracket	6	g	c	< 91	0x5b	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes	
			nnn	s	t	-----			
7	Base	-	Hyphen, Minus Sign	7	b	c	< 45	0x2d	CL
7	Shift	6	Six	7	s	c	< 54	0x36	
7	Ctrl	SS2	Single Shift 2	7	c	c	< 30	0x1e	
7	Alt	PFK	63	7	a	f	0x3f	ESC [ 0 6 3 q	
7	AltGr		Pipe Symbol	7	g	c	< 124	0x7c	
8	Base	è	e Grave Small	8	b	c	< 138	0x8a	CL
8	Shift	7	Seven	8	s	c	< 55	0x37	
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
8	AltGr	`	Grave Accent	8	g	c	< 96	0x60	DK
9	Base	_	Underscore	9	b	c	< 95	0x5f	CL
9	Shift	8	Eight	9	s	c	< 56	0x38	
9	Ctrl	SS4	Single Shift 4	9	c	c	< 28	0x1c	
9	Alt	PFK	86	9	a	f	0x56	ESC [ 0 8 6 q	
9	AltGr	\	Reverse Slash	9	g	c	< 92	0x5c	
10	Base	ç	c Cedilla Small	10	b	c	< 135	0x87	CL
10	Shift	9	Nine	10	s	c	< 57	0x39	
10	Ctrl	PFK	55	10	c	f	0x37	ESC [ 0 5 5 q	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
10	AltGr	^	Circumflex Accent	10	g	c	< 94	0x5e	
11	Base	à	a Grave Small	11	b	c	< 133	0x85	CL
11	Shift	0	Zero	11	s	c	< 48	0x30	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
11	AltGr	@	At Sign	11	g	c	< 64	0x40	
12	Base	)	Right Parenthesis	12	b	c	< 41	0x29	CL
12	Shift	°	Degree Symbol	12	s	c	< 248	0xf8	
12	Ctrl	SS3	Single Shift 3	12	c	c	< 29	0x1d	
12	Alt	PFK	68	12	a	f	0x44	ESC [ 0 6 8 q	
12	AltGr	]	Right Bracket	12	g	c	< 93	0x5d	
13	Base	=	Equal Sign	13	b	c	< 61	0x3d	CL
13	Shift	+	Plus Sign	13	s	c	< 43	0x2b	
13	Ctrl	PFK	69	13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK	70	13	a	f	0x46	ESC [ 0 7 0 q	
13	AltGr	}	Right Brace	13	g	c	< 125	0x7d	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
14		Not available on keyboard							
15	Base	BS	Back Space	15	b	c	< 8	0x08	CL
15	Shift	BS	Back Space	15	s	c	< 8	0x08	
15	Ctrl	DEL	Delete	15	c	c	< 127	0x7f	
15	Alt	PFK	71	15	a	f	0x47	ESC [ 0 7 1 q	
15	AltGr	Ignore		15	g	f	0x1ff	Not Returned	
16	Base	HT	Horizontal Tab	16	b	c	< 9	0x09	CL
16	Shift	CBT	Cursor Back Tab	16	s	f	0x105	ESC [ Z	
16	Ctrl	PFK	72	16	c	f	0x48	ESC [ 0 7 2 q	
16	Alt	PFK	73	16	a	f	0x49	ESC [ 0 7 3 q	
16	AltGr	Ignore		16	g	f	0x1ff	Not Returned	
17	Base	a	Lowercase a	17	b	c	< 97	0x61	CL
17	Shift	A	Uppercase a	17	s	c	< 65	0x41	
17	Ctrl	SOH	Start of Header	17	c	c	< 1	0x01	
17	Alt	PFK	87	17	a	f	0x57	ESC [ 0 8 7 q	
17	AltGr	Ignore		17	g	f	0x1ff	Not Returned	
18	Base	z	Lowercase z	18	b	c	< 122	0x7a	CL
18	Shift	Z	Uppercase z	18	s	c	< 90	0x5a	
18	Ctrl	SUB	Substitute Char.	18	c	c	< 26	0x1a	
18	Alt	PFK	101	18	a	f	0x4b	ESC [ 1 0 1 q	
18	AltGr	Ignore		18	g	f	0x1ff	Not Returned	
19	Base	e	Lowercase e	19	b	c	< 101	0x65	CL
19	Shift	E	Uppercase e	19	s	c	< 69	0x45	
19	Ctrl	ENQ	Enquiry	19	c	c	< 5	0x05	
19	Alt	PFK	76	19	a	f	0x4c	ESC [ 0 7 6 q	
19	AltGr	Ignore		19	g	f	0x1ff	Not Returned	
20	Base	r	Lowercase r	20	b	c	< 114	0x72	CL
20	Shift	R	Uppercase r	20	s	c	< 82	0x52	
20	Ctrl	DC2	Device Control 2	20	c	c	< 18	0x12	
20	Alt	PFK	77	20	a	f	0x4d	ESC [ 0 7 7 q	
20	AltGr	Ignore		20	g	f	0x1ff	Not Returned	
21	Base	t	Lowercase t	21	b	c	< 116	0x74	CL
21	Shift	T	Uppercase t	21	s	c	< 84	0x54	
21	Ctrl	DC4	Device Control 4	21	c	c	< 20	0x14	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes	
				nnn	s	t			-----
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore		21	g	f	0x1ff	Not Returned	
22	Base	y	Lowercase y	22	b	c	< 121	0x79	CL
22	Shift	Y	Uppercase y	22	s	c	< 89	0x59	
22	Ctrl	EM	End_of Media	22	c	c	< 25	0x19	
22	Alt	PFK	79	22	a	f	0x4f	ESC [ 0 7 9 q	
22	AltGr	Ignore		22	g	f	0x1ff	Not Returned	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore		23	g	f	0x1ff	Not Returned	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore		24	g	f	0x1ff	Not Returned	
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
25	AltGr	Ignore		25	g	f	0x1ff	Not Returned	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
26	AltGr	Ignore		26	g	f	0x1ff	Not Returned	
27	Base	^	Circumflex Accent	27	b	c	< 94	0x5e	CL/DK DK
27	Shift	¨	Umlaut Accent	27	s	c	< 249	0xf9	
27	Ctrl	PFK	52	27	c	c	0x34	ESC [ 0 5 2 q	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
27	AltGr	Ignore		27	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
28	Base	\$	Dollar Sign	28	b	c	< 36	0x24	CL
28	Shift	£	Pounds Sterling	28	s	c	< 156	0x9c	
28	Ctrl	PFK 54		28	c	f	0x36	ESC [ 0 5 4 q	
28	Alt	PFK 85		28	a	f	0x55	ESC [ 0 8 5 q	
28	AltGr	⌘	Int. Curr. Symbol	28	g	c	< 207	0xcf	
29	Not available on keyboard								
30	Base	Caps Lock		None				Not Returned	
30	Shift	Caps Lock		None				Not Returned	
30	Ctrl	Caps Lock		None				Not Returned	
30	Alt	Caps Lock		None				Not Returned	
30	AltGr	Caps Lock		None				Not Returned	
31	Base	q	Lowercase q	31	b	c	< 113	0x71	CL
31	Shift	Q	Uppercase q	31	s	c	< 81	0x51	
31	Ctrl	DC1	Device Control 1	31	c	c	< 17	0x11	
31	Alt	PFK 74		31	a	f	0x4a	ESC [ 0 7 4 q	
31	AltGr	Ignore		31	g	f	0x1ff	Not Returned	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK 88		32	a	f	0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore		32	g	f	0x1ff	Not Returned	
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK 89		33	a	f	0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore		33	g	f	0x1ff	Not Returned	
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK 90		34	a	f	0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore		34	g	f	0x1ff	Not Returned	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes	
				nnn	s	t			-----
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore		35	g	f	0x1ff	Not Returned	
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK	92	36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK	93	37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK	94	38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK	95	39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	m	Lowercase m	40	b	c	< 109	0x6d	CL
40	Shift	M	Uppercase M	40	s	c	< 77	0x4d	
40	Ctrl	CR	Carriage Return	40	c	c	0x13	0x0d	
40	Alt	PFK	107	40	a	f	0x66	ESC [ 1 0 7 q	
40	AltGr	Ignore		40	g	f	0x1ff	Not Returned	
41	Base	ù	u Grave Small	41	b	c	< 151	0x97	CL
41	Shift	%	Percent Sign	41	s	c	< 37	0x25	
41	Ctrl	PFK	98	41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK	99	41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	Ignore		41	g	f	0x1ff	Not Returned	
42	Base	*	Asterisk	42	b	c	< 42	0x2a	CL
42	Shift	μ	Greek Mu Small	42	s	c	< 230	0xe6	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
42	Ctrl	PFK	96	42	c	f	0x60	ESC [ 0 9 6 q	
42	Alt	PFK	65	42	a	f	0x41	ESC [ 0 6 5 q	
42	AltGr	Ignore		42	g	f	0x1ff	Not Returned	
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK	100	43	a	f	0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore		43	g	f	0x1ff	Not Returned	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
44	AltGr	Shift (Left)		None				Not Returned	
45	Base	<	Less Than Sign	45	b	c	< 60	0x3c	
45	Shift	>	Greater Than Sign	45	s	c	< 62	0x3e	
45	Ctrl	Ignore		45	c	f	0x1ff	Not Returned	
45	Alt	Ignore		45	a	f	0x1ff	Not Returned	
45	AltGr	Ignore		45	g	f	0x1ff	Not Returned	
46	Base	w	Lowercase w	46	b	c	< 119	0x77	CL
46	Shift	W	Uppercase w	46	s	c	< 87	0x57	
46	Ctrl	ETB	End Trans Block	46	c	c	< 23	0x17	
46	Alt	PFK	75	46	a	f	0x4b	ESC [ 0 7 5 q	
46	AltGr	Ignore		46	g	f	0x1ff	Not Returned	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK	102	47	a	f	0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore		47	g	f	0x1ff	Not Returned	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of text	48	c	c	< 3	0x03	
48	Alt	PFK	103	48	a	f	0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore		48	g	f	0x1ff	Not Returned	



Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes	
				nnn	s	t			-----
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK 104		49	a	f	0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore		49	g	f	0x1ff	Not Returned	
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK 105		50	a	f	0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore		50	g	f	0x1ff	Not Returned	
51	Base	n	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK 106		51	a	f	0x6a	ESC [ 1 0 6 q	
51	AltGr	Ignore		51	g	f	0x1ff	Not Returned	
52	Base	,	Comma	52	b	c	< 44	0x2c	CL
52	Shift	?	Question Mark	52	s	c	< 63	0x3f	
52	Ctrl	SS1	Single Shift 1	52	c	c	< 31	0x1f	
52	Alt	PFK 97		52	a	f	0x61	ESC [ 0 9 7 q	
52	AltGr	Ignore		52	g	f	0x1ff	Not Returned	
53	Base	;	Semicolon	53	b	c	< 60	0x3b	CL
53	Shift	.	Period	53	s	c	< 46	0x2e	
53	Ctrl	PFK 108		53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK 109		53	a	f	0x6d	ESC [ 1 0 9 q	
53	AltGr	Ignore		53	g	f	0x1ff	Not Returned	
54	Base	:	Colon	54	b	c	< 58	0x3a	CL
54	Shift	/	Slash	54	s	c	< 47	0x2f	
54	Ctrl	PFK 110		54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK 111		54	a	f	0x6f	ESC [ 1 1 1 q	
54	AltGr	Ignore		54	g	f	0x1ff	Not Returned	
55	Base	!	Exclamation Point	55	b	c	< 33	0x21	CL
55	Shift	§	Section Symbol	55	s	c	< 245	0xf5	CL
55	Ctrl	PFK 112		55	c	f	0x70	ESC [ 1 1 2 q	
55	Alt	PFK 113		55	a	f	0x71	ESC [ 1 1 3 q	
55	AltGr	Ignore		55	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
56		Not available on keyboard			
57	Base	Shift (Right)	None	Not Returned	
57	Shift	Shift (Right)	None	Not Returned	
57	Ctrl	Shift (Right)	None	Not Returned	
57	Alt	Shift (Right)	None	Reserved for IBM 5080	
57	AltGr	Shift (Right)	None	Not Returned	
58	Base	Control	None	Not Returned	
58	Shift	Control	None	Not Returned	
58	Ctrl	Control	None	Not Returned	
58	Alt	Control	None	Not Returned	
58	AltGr	Control	None	Not Returned	
59		Not available on keyboard			
60	Base	Alternate Shift	None	Not Returned	
60	Shift	Alternate Shift	None	Not Returned	
60	Ctrl	Alternate Shift	None	Not Returned	
60	Alt	Alternate Shift	None	Not Returned	
60	AltGr	Alternate Shift	None	Not Returned	
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff	Not Returned	
62	Base	Alternate Graphic Shift	None	Not Returned	
62	Shift	Alternate Graphic Shift	None	Not Returned	
62	Ctrl	Alternate Graphic Shift	None	Not Returned	
62	Alt	Alternate Graphic Shift	None	Not Returned	
62	AltGr	Alternate Graphic Shift	None	Not Returned	
63		Not available on keyboard			
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None	VTRM Previous Window	
64	Ctrl	VTRM Windows Window	None	VTRM Windows Window	
64	Alt	VTRM Next Window	None	VTRM Next Window	
64	AltGr	VTRM Next Window	None	VTRM Next Window	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
65 - 74	Not available on keyboard							
75	Base	PFK	139 INS Toggle	75	b	f	0x8b	ESC [ 1 3 9 q
75	Shift	PFK	139 INS Toggle	75	s	f	0x8b	ESC [ 1 3 9 q
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned
77	Not available on keyboard							
78	Not available on keyboard							
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned
80	Base	HOME		80	b	f	0x108	ESC [ H
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned
82	Not available on keyboard							
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned
84	Base	CUD	Cursor Down	84	b	f	0x102	ESC [ B
84	Shift	PFK	164	84	s	f	0xa4	ESC [ 1 6 4 q
84	Ctrl	PFK	165	84	c	f	0xa5	ESC [ 1 6 5 q
84	Alt	PFK	166	84	a	f	0xa6	ESC [ 1 6 6 q
84	AltGr	Ignore		84	g	f	0x1ff	Not Returned
85	Base	PFK	150	85	b	f	0x96	ESC [ 1 5 0 q
85	Shift	PFK	151	85	s	f	0x97	ESC [ 1 5 1 q
85	Ctrl	PFK	152	85	c	f	0x98	ESC [ 1 5 2 q
85	Alt	PFK	153	85	a	f	0x99	ESC [ 1 5 3 q
85	AltGr	Ignore		85	g	f	0x1ff	Not Returned
86	Base	PFK	154	86	b	f	0x9a	ESC [ 1 5 4 q
86	Shift	PFK	155	86	s	f	0x9b	ESC [ 1 5 5 q
86	Ctrl	PFK	156	86	c	f	0x9c	ESC [ 1 5 6 q
86	Alt	PFK	157	86	a	f	0x9d	ESC [ 1 5 7 q
86	AltGr	Ignore		86	g	f	0x1ff	Not Returned
87	Not available on keyboard							
88	Not available on keyboard							
89	Base	CUF	Cursor Forward	89	b	f	0x103	ESC [ C
89	Shift	PFK	167	89	s	f	0xa7	ESC [ 1 6 7 q
89	Ctrl	PFK	168	89	c	f	0xa8	ESC [ 1 6 8 q
89	Alt	PFK	169	89	a	f	0xa9	ESC [ 1 6 9 q
89	AltGr	Ignore		89	g	f	0x1ff	Not Returned
90	Base	NUM LOCK		None				Not Returned
90	Shift	NUM LOCK		None				Not Returned
90	Ctrl	DC3	Device Control 3	90	c	c	< 19	0x13
90	Alt	PFK	170	90	a	f	0xaa	ESC [ 1 7 0 q
90	AltGr	Ignore		90	g	f	0x1ff	Not Returned
91	Base	r	Upper Left Corner	91	b	c	< 218	0xda
91	Shift	7	Seven	91	s	c	< 55	0x37
91	Ctrl	PFK	172	91	c	f	0xac	ESC [ 1 7 2 q
91	Alt	Alt + Num Entry		None				Return At Alt break

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
91	AltGr	Ignore	91	g	f	0x1ff	Not Returned	
92	Base	┘ Left Edge Int.	92	b	c	< 195	0xc3	
92	Shift	4 Four	92	s	c	< 52	0x34	
92	Ctrl	PFK 174	92	c	f	0xae	ESC [ 1 7 4 q	
92	Alt	Alt + Num Entry	None				Return At Alt break	
92	AltGr	Ignore	92	g	f	0x1ff	Not Returned	
93	Base	┘ Lower Left Corner	93	b	c	< 192	0xc0	
93	Shift	1 One	93	s	c	< 49	0x31	
93	Ctrl	PFK 176	93	c	f	0xb0	ESC [ 1 7 6 q	
93	Alt	Alt + Num Entry	None				Return At Alt break	
93	AltGr	Ignore	93	g	f	0x1ff	Not Returned	
94	Not available on keyboard							
95	Base	/ Slash	95	b	c	< 47	0x2f	
95	Shift	/ Slash	95	s	c	< 47	0x2f	
95	Ctrl	PFK 179	95	c	f	0xb3	ESC [ 1 7 9 q	
95	Alt	PFK 180	95	a	f	0xb4	ESC [ 1 8 0 q	
95	AltGr	Ignore	95	g	f	0x1ff	Not Returned	
96	Base	┘ Top Edge Int.	96	b	c	< 194	0xc2	
96	Shift	8 Eight	96	s	c	< 56	0x38	
96	Ctrl	PFK 182	96	c	f	0xb6	ESC [ 1 8 2 q	
96	Alt	Alt + Num Entry	None				Return At Alt break	
96	AltGr	Ignore	96	g	f	0x1ff	Not Returned	
97	Base	┘ Center Intersection	97	b	c	< 197	0xc5	
97	Shift	5 Five	97	s	c	< 53	0x35	
97	Ctrl	PFK 184	97	c	f	0xb8	ESC [ 1 8 4 q	
97	Alt	Alt + Num Entry	None				Return At Alt break	
97	AltGr	Ignore	97	g	f	0x1ff	Not Returned	
98	Base	┘ Bottom Intersection	98	b	c	< 193	0xc1	
98	Shift	2 Two	98	s	c	< 50	0x32	
98	Ctrl	PFK 186	98	c	f	0xba	ESC [ 1 8 6 q	
98	Alt	Alt + Num Entry	None				Return At Alt break	
98	AltGr	Ignore	98	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
99	Base	Vertical Bar	99	b	c	< 179	0xb3	
99	Shift	0 Zero	99	s	c	< 48	0x30	
99	Ctrl	PFK 178	99	c	f	0xb2	ESC [ 1 7 8 q	
99	Alt	Alt + Num Entry	None				Return At Alt break	
99	AltGr	Ignore	99	g	f	0x1ff	Not Returned	
100	Base	* Asterisk	100	b	c	< 42	0x2a	
100	Shift	* Asterisk	100	s	c	< 42	0x2a	
100	Ctrl	PFK 187	100	c	f	0xbb	ESC [ 1 8 7 q	
100	Alt	PFK 188	100	a	f	0xbc	ESC [ 1 8 8 q	
100	AltGr	Ignore	100	g	f	0x1ff	Not Returned	
101	Base	⌵ Upper Right Corner	101	b	c	< 191	0xbf	
101	Shift	9 Nine	101	s	c	< 57	0x39	
101	Ctrl	PFK 190	101	c	f	0xbe	ESC [ 1 9 0 q	
101	Alt	Alt + Num Entry	None				Return at Alt Break	
101	AltGr	Ignore	101	g	f	0x1ff	Not Returned	
102	Base	⌵ Right Edge Int.	102	b	c	< 180	0xb4	
102	Shift	6 Six	102	s	c	< 54	0x36	
102	Ctrl	PFK 192	102	c	f	0xc0	ESC [ 1 9 2 q	
102	Alt	Alt + Num Entry	None				Return at Alt Break	
102	AltGr	Ignore	102	g	f	0x1ff	Not Returned	
103	Base	⌵ Lower Right Corner	103	b	c	< 217	0xd9	
103	Shift	3 Three	103	s	c	< 51	0x33	
103	Ctrl	PFK 194	103	c	f	0xc2	ESC [ 1 9 4 q	
103	Alt	Alt + Num Entry	None				Return at Alt Break	
103	AltGr	Ignore	103	g	f	0x1ff	Not Returned	
104	Base	- Horizontal Line	104	b	c	< 196	0xc4	
104	Shift	. Period	104	s	c	< 46	0x2e	
104	Ctrl	PFK 196	104	c	f	0xc4	ESC [ 1 9 6 q	
104	Alt	PFK 197	104	a	f	0xc5	ESC [ 1 9 7 q	
104	AltGr	Ignore	104	g	f	0x1ff	Not Returned	
105	Base	- Hyphen, Minus Sign	105	b	c	< 45	0x2d	
105	Shift	- Hyphen, Minus Sign	105	s	c	< 45	0x2d	
105	Ctrl	PFK 198	105	c	f	0xc6	ESC [ 1 9 8 q	
105	Alt	PFK 199	105	a	f	0xc7	ESC [ 1 9 9 q	
105	AltGr	Ignore	105	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Base	+	Plus Sign	106	b	c	< 43	0x2b	
106	Shift	+	Plus Sign	106	s	c	< 43	0x2b	
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
100	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
115	Base	PFK 4	115 b f 0x04	ESC [ 0 0 4 q	
115	Shift	PFK 16	115 s f 0x10	ESC [ 0 1 6 q	
115	Ctrl	PFK 28	115 c f 0x1c	ESC [ 0 2 8 q	
115	Alt	PFK 40	115 a f 0x28	ESC [ 0 4 0 q	
115	AltGr	Ignore	115 g f 0x1ff	Not Returned	
116	Base	PFK 5	116 b f 0x05	ESC [ 0 0 5 q	
116	Shift	PFK 17	116 s f 0x11	ESC [ 0 1 7 q	
116	Ctrl	PFK 29	116 c f 0x1d	ESC [ 0 2 9 q	
116	Alt	PFK 41	116 a f 0x29	ESC [ 0 4 1 q	
116	AltGr	Ignore	116 g f 0x1ff	Not Returned	
117	Base	PFK 6	117 b f 0x06	ESC [ 0 0 6 q	
117	Shift	PFK 18	117 s f 0x12	ESC [ 0 1 8 q	
117	Ctrl	PFK 30	117 c f 0x1e	ESC [ 0 3 0 q	
117	Alt	PFK 42	117 a f 0x2a	ESC [ 0 4 2 q	
117	AltGr	Ignore	117 g f 0x1ff	Not Returned	
118	Base	PFK 7	118 b f 0x07	ESC [ 0 0 7 q	
118	Shift	PFK 19	118 s f 0x13	ESC [ 0 1 9 q	
118	Ctrl	PFK 31	118 c f 0x1f	ESC [ 0 3 1 q	
118	Alt	PFK 43	118 a f 0x2b	ESC [ 0 4 3 q	
118	AltGr	Ignore	118 g f 0x1ff	Not Returned	
119	Base	PFK 8	119 b f 0x08	ESC [ 0 0 8 q	
119	Shift	PFK 20	119 s f 0x14	ESC [ 0 2 0 q	
119	Ctrl	PFK 32	119 c f 0x20	ESC [ 0 3 2 q	
119	Alt	PFK 44	119 a f 0x2c	ESC [ 0 4 4 q	
119	AltGr	Ignore	119 g f 0x1ff	Not Returned	
120	Base	PFK 9	120 b f 0x09	ESC [ 0 0 9 q	
120	Shift	PFK 21	120 s f 0x15	ESC [ 0 2 1 q	
120	Ctrl	PFK 33	120 c f 0x21	ESC [ 0 3 3 q	
120	Alt	PFK 45	120 a f 0x2d	ESC [ 0 4 5 q	
120	AltGr	Ignore	120 g f 0x1ff	Not Returned	
121	Base	PFK 10	121 b f 0x0a	ESC [ 0 1 0 q	
121	Shift	PFK 22	121 s f 0x16	ESC [ 0 2 2 q	
121	Ctrl	PFK 34	121 c f 0x22	ESC [ 0 3 4 q	
121	Alt	PFK 46	121 a f 0x2e	ESC [ 0 4 6 q	
121	AltGr	Ignore	121 g f 0x1ff	Not Returned	



Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q
122	AltGr	Ignore		122	g	f	0x1ff	Not Returned
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q
123	AltGr	Ignore		123	g	f	0x1ff	Not Returned
124	Base	PFK	209	124	b	f	0xd1	ESC [ 2 0 9 q
124	Shift	PFK	210	124	s	f	0xd2	ESC [ 2 1 0 q
124	Ctrl	PFK	211	124	c	f	0xd3	ESC [ 2 1 1 q
124	Alt	PFK	212	124	a	f	0xd4	ESC [ 2 1 2 q
124	AltGr	Ignore		124	g	f	0x1ff	Not Returned
125	Base	PFK	213	125	b	f	0xd5	ESC [ 2 1 3 q
125	Shift	PFK	214	125	s	f	0xd6	ESC [ 2 1 4 q
125	Ctrl	PFK	215	125	c	f	0xd7	ESC [ 2 1 5 q
125	Alt	PFK	216	125	a	f	0xd8	ESC [ 2 1 6 q
125	AltGr	Ignore		125	g	f	0x1ff	Not Returned
126	Base	PFK	217	126	b	f	0xd9	ESC [ 2 1 7 q
126	Shift	PFK	218	126	s	f	0xda	ESC [ 2 1 8 q
126	Ctrl	DEL		126	c	c	< 127	0x7f
126	Alt	DEL		126	a	c	< 127	0x7f
126	AltGr	Ignore		126	g	f	0x1ff	Not Returned

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# Appendix I. German Keyboard Layout and Table

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This appendix contains the keyboard layout and keyboard table information for the German keyboard.

The listing below:

1. Specifies the key assignments used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

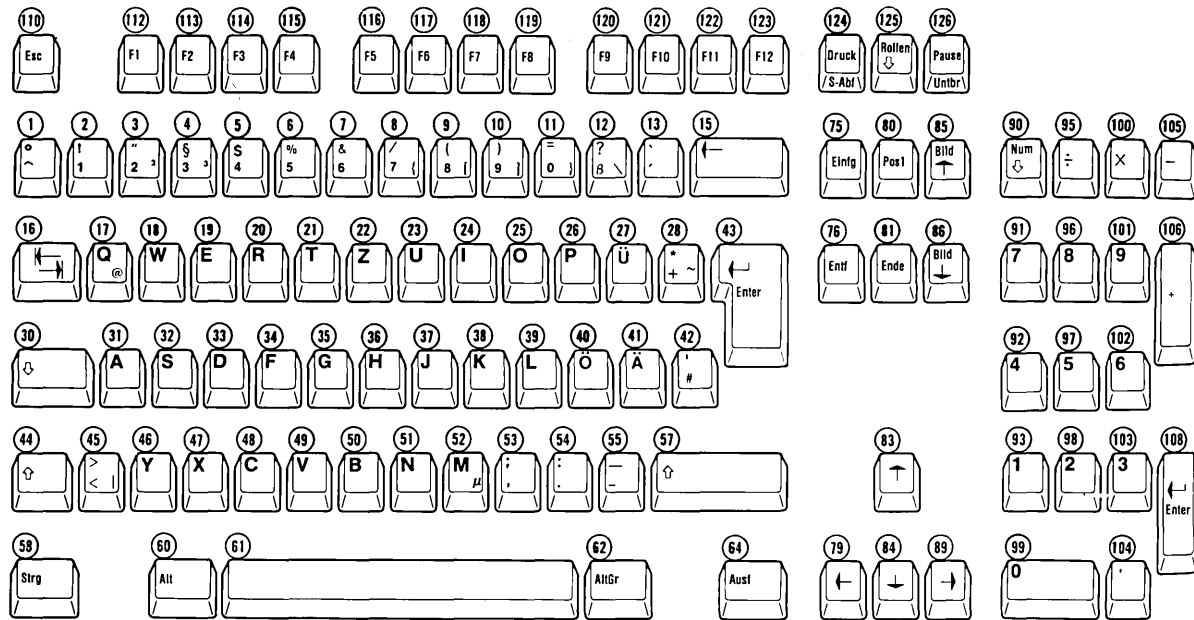
**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the Alt key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.

# German Keyboard Layout



## German Keyboard Table

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes	
1	Base	^	Circumflex Accent	1 b d < 94	0x5e	CL/DK CL
1	Shift	°	Degree Symbol	1 s c < 248	0xf8	
1	Ctrl	PFK 57		1 c f 0x39	ESC [ 0 5 7 q	
1	Alt	PFK 115		1 a f 0x73	ESC [ 1 1 5 q	
1	AltGr	Ignore		1 g f 0x1ff	Not Returned	
2	Base	1	One	2 b c < 49	0x31	CL
2	Shift	!	Exclamation Point	2 s c < 33	0x21	
2	Ctrl	PFK 49		2 c f 0x31	ESC [ 0 4 9 q	
2	Alt	PFK 58		2 a f 0x3a	ESC [ 0 5 8 q	
2	AltGr	Ignore		2 g f 0x1ff	Not Returned	
3	Base	2	Two	3 b c < 50	0x32	CL
3	Shift	"	Double Quote	3 s c < 34	0x22	
3	Ctrl	NUL	Null	3 c c < 0	0x00	
3	Alt	PFK 59		3 a f 0x3b	ESC [ 0 5 9 q	
3	AltGr	<sup>2</sup>	Superscript 2	3 g c < 253	0xfd	
4	Base	3	Three	4 b c < 51	0x33	CL
4	Shift	§	Section Symbol	4 s c < 245	0xf5	
4	Ctrl	PFK 50		4 c f 0x32	ESC [ 0 5 0 q	
4	Alt	PFK 60		4 a f 0x3c	ESC [ 0 6 0 q	
4	AltGr	<sup>3</sup>	Superscript 3	4 g c < 252	0xfc	
5	Base	4	Four	5 b c < 52	0x34	CL
5	Shift	\$	Dollar Sign	5 s c < 36	0x24	
5	Ctrl	PFK 51		5 c f 0x33	ESC [ 0 5 1 q	
5	Alt	PFK 61		5 a f 0x3d	ESC [ 0 6 1 q	
5	AltGr	Ignore		5 g f 0x1ff	Not Returned	
6	Base	5	Five	6 b c < 53	0x35	CL
6	Shift	%	Percent Sign	6 s c < 37	0x25	
6	Ctrl	PFK 52		6 c f 0x34	ESC [ 0 5 2 q	
6	Alt	PFK 62		6 a f 0x3e	ESC [ 0 6 2 q	
6	AltGr	Ignore		6 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
7	Base	6	Six	7	b	c	< 54	0x36	CL
7	Shift	&	Ampersand	7	s	c	< 38	0x26	
7	Ctrl	SS2	Single Shift 2	7	c	c	< 30	0x1e	
7	Alt	PFK	63	7	a	f	0x3f	ESC [ 0 6 3 q	
7	AltGr	Ignore		7	g	f	0x1ff	Not Returned	
8	Base	7	Seven	8	b	c	< 55	0x37	CL
8	Shift	/	Slash	8	s	c	< 47	0x2f	
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
8	AltGr	{	Left Brace	8	g	c	< 123	0x7b	
9	Base	8	Eight	9	b	c	< 56	0x38	CL
9	Shift	(	Left Parenthesis	9	s	c	< 40	0x28	
9	Ctrl	ESC	Escape	9	c	c	< 27	0x1b	
9	Alt	PFK	65	9	a	f	0x41	ESC [ 0 6 5 q	
9	AltGr	[	Left Bracket	9	g	c	< 91	0x5b	
10	Base	9	Nine	10	b	c	< 57	0x39	CL
10	Shift	)	Right Parenthesis	10	s	c	< 41	0x29	
10	Ctrl	SS3	Single Shift 3	10	c	c	< 29	0x1d	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
10	AltGr	]	Right Bracket	10	g	c	< 93	0x5d	
11	Base	0	Zero	11	b	c	< 48	0x30	CL
11	Shift	=	Equal Sign	11	s	c	< 61	0x3d	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
11	AltGr	}	Right Brace	11	g	c	< 125	0x7d	
12	Base	β	s Sharp	12	b	c	= 225	0xe1	CL
12	Shift	?	Question Mark	12	s	c	< 63	0x3f	
12	Ctrl	SS4	Single Shift 4	12	c	c	< 28	0x1c	
12	Alt	PFK	86	12	a	f	0x56	ESC [ 0 8 6 q	
12	AltGr	\	Reverse Slash	12	g	c	< 92	0x5c	
13	Base	'	Acute Accent	13	b	d	< 239	0xef	CL/DK DK
13	Shift	`	Grave Accent	13	s	d	< 96	0x60	
13	Ctrl	PFK	69	13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK	70	13	a	f	0x46	ESC [ 0 7 0 q	
13	AltGr	Ignore		13	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes	
14		Not available on keyboard				
15	Base	BS	Back Space	15 b c < 8	0x08	CL
15	Shift	BS	Back Space	15 s c < 8	0x08	CL
15	Ctrl	DEL	Delete	15 c c < 127	0x7f	
15	Alt	PFK	71	15 a f 0x47	ESC [ 0 7 1 q	
15	AltGr	Ignore		15 g f 0x1ff	Not Returned	
16	Base	HT	Horizontal Tab	16 b c < 9	0x09	CL
16	Shift	CBT	Cursor Back Tab	16 s f 0x105	ESC [ Z	
16	Ctrl	PFK	72	16 c f 0x48	ESC [ 0 7 2 q	
16	Alt	PFK	73	16 a f 0x49	ESC [ 0 7 3 q	
16	AltGr	Ignore		16 g f 0x1ff	Not Returned	
17	Base	q	Lowercase q	17 b c < 113	0x71	CL
17	Shift	Q	Uppercase q	17 s c < 81	0x51	
17	Ctrl	DC1	Device Control 1	17 c c < 17	0x11	
17	Alt	PFK	74	17 a f 0x4a	ESC [ 0 7 4 q	
17	AltGr	@	At Sign	17 g c < 64	0x40	
18	Base	w	Lowercase w	18 b c < 119	0x77	CL
18	Shift	W	Uppercase w	18 s c < 87	0x57	
18	Ctrl	ETB	End Trans Block	18 c c < 23	0x17	
18	Alt	PFK	75	18 a f 0x4b	ESC [ 0 7 5 q	
18	AltGr	Ignore		18 g f 0x1ff	Not Returned	
19	Base	e	Lowercase e	19 b c < 101	0x65	CL
19	Shift	E	Uppercase e	19 s c < 69	0x45	
19	Ctrl	ENQ	Enquiry	19 c c < 5	0x05	
19	Alt	PFK	76	19 a f 0x4c	ESC [ 0 7 6 q	
19	AltGr	Ignore		19 g f 0x1ff	Not Returned	
20	Base	r	Lowercase r	20 b c < 114	0x72	CL
20	Shift	R	Uppercase r	20 s c < 82	0x52	
20	Ctrl	DC2	Device Control 2	20 c c < 18	0x12	
20	Alt	PFK	77	20 a f 0x4d	ESC [ 0 7 7 q	
20	AltGr	Ignore		20 g f 0x1ff	Not Returned	
21	Base	t	Lowercase t	21 b c < 116	0x74	CL
21	Shift	T	Uppercase t	21 s c < 84	0x54	
21	Ctrl	DC4	Device Control 4	21 c c < 20	0x14	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore		21	g	f	0x1ff	Not Returned	
22	Base	z	Lowercase z	22	b	c	< 122	0x7a	CL
22	Shift	Z	Uppercase z	22	s	c	< 90	0x5a	
22	Ctrl	SUB	Substitute Char.	22	c	c	< 26	0x1a	
22	Alt	PFK	101	22	a	f	0x65	ESC [ 1 0 1 q	
22	AltGr	Ignore		22	g	f	0x1ff	Not Returned	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore		23	g	f	0x1ff	Not Returned	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore		24	g	f	0x1ff	Not Returned	
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
25	AltGr	Ignore		25	g	f	0x1ff	Not Returned	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
26	AltGr	Ignore		26	g	f	0x1ff	Not Returned	
27	Base	ü	u Umlaut Small	27	b	c	< 129	0x81	CL
27	Shift	Û	u Umlaut Capital	27	s	c	< 154	0x9a	
27	Ctrl	PFK	54	27	c	f	0x36	ESC [ 0 5 4 q	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
27	AltGr	Ignore		27	g	f	0x1ff	Not Returned	
28	Base	+	Plus Sign	28	b	c	< 43	0x2b	CL
28	Shift	*	Asterisk	28	s	c	< 42	0x2a	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
28	Ctrl	PFK	55	28	c	f	0x37	ESC [ 0 5 5	
28	Alt	PFK	85	28	a	f	0x55	ESC [ 0 8 5 q	
28	AltGr	~	Tilde Accent	28	g	c	< 126	0x7e	DK
29	Not available on keyboard								
30	Base	Caps Lock		None				Not Returned	
30	Shift	Caps Lock		None				Not Returned	
30	Ctrl	Caps Lock		None				Not Returned	
30	Alt	Caps Lock		None				Not Returned	
30	AltGr	Caps Lock		None				Not Returned	
31	Base	a	Lowercase a	31	b	c	< 97	0x61	CL
31	Shift	A	Uppercase a	31	s	c	< 65	0x41	
31	Ctrl	SOH	Start of Header	31	c	c	< 1	0x01	
31	Alt	PFK	87	31	a	f	0x57	ESC [ 0 8 7 q	
31	AltGr	Ignore		31	g	f	0x1ff	Not Returned	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK	88	32	a	f	0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore		32	g	f	0x1ff	Not Returned	
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK	89	33	a	f	0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore		33	g	f	0x1ff	Not Returned	
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK	90	34	a	f	0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore		34	g	f	0x1ff	Not Returned	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore		35	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes	
				nnn	s	t			-----
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK	92	36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK	93	37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK	94	38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK	95	39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	ö	o Umlaut Small	40	b	c	< 148	0x94	CL
40	Shift	Ö	o Umlaut Capital	40	s	c	< 153	0x99	
40	Ctrl	PFK	96	40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK	97	40	a	f	0x61	ESC [ 0 9 7 q	
40	AltGr	Ignore		40	g	f	0x1ff	Not Returned	
41	Base	ä	a Umlaut Small	41	b	c	< 132	0x84	CL
41	Shift	Ä	a Umlaut Capital	41	s	c	< 142	0x8e	
41	Ctrl	PFK	98	41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK	99	41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	Ignore		41	g	f	0x1ff	Not Returned	
42	Base	#	Number Sign	42	b	c	< 35	0x23	CL
42	Shift	'	Quote/Apostrophe	42	s	c	< 39	0x27	
42	Ctrl	PFK	112	42	c	f	0x70	ESC [ 1 1 2 q	
42	Alt	PFK	113	42	a	f	0x71	ESC [ 1 1 3 q	
42	AltGr	Ignore		42	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK 100		43	a	f	0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore		43	g	f	0x1ff	Not Returned	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
44	AltGr	Shift (Left)		None				Not Returned	
45	Base	<	Less Than Sign	45	b	c	< 60	0x3c	
45	Shift	>	Greater Than Sign	45	s	c	< 62	0x3e	
45	Alt	Ignore		45	c	f	0x1ff	Not Returned	
45	Ctrl	Ignore		45	a	f	0x1ff	Not Returned	
45	AltGr	¡	Pipe Symbol	45	g	c	> 124	0x7c	
46	Base	y	Lowercase y	46	b	c	< 121	0x79	CL
46	Shift	Y	Uppercase y	46	s	c	< 89	0x59	
46	Ctrl	EM	End of Media	46	c	c	< 25	0x19	
46	Alt	PFK 79		46	a	f	0x4f	ESC [ 0 7 9 q	
46	AltGr	Ignore		46	g	f	0x1ff	Not Returned	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK 102		47	a	f	0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore		47	g	f	0x1ff	Not Returned	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of Text	48	c	c	< 3	0x03	
48	Alt	PFK 103		48	a	f	0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore		48	g	f	0x1ff	Not Returned	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK 104		49	a	f	0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore		49	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK	105	50	a	f	0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore		50	g	f	0x1ff	Not Returned	
51	Base	n	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK	106	51	a	f	0x6a	ESC [ 1 0 6 q	
51	AltGr	Ignore		51	g	f	0x1ff	Not Returned	
52	Base	m	Lowercase m	52	b	c	< 109	0x6d	CL
52	Shift	M	Uppercase m	52	s	c	< 77	0x4d	
52	Ctrl	CR	Carriage Return	52	c	c	< 13	0x0d	
52	Alt	PFK	107	52	a	f	0x66	ESC [ 1 0 7 q	
52	AltGr	μ	Mu Small	52	g	c	< 230	0xe6	
53	Base	,	Comma	53	b	c	< 44	0x2c	CL
53	Shift	;	Semicolon	53	s	c	< 59	0x3b	
53	Ctrl	PFK	108	53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK	109	53	a	f	0x6d	ESC [ 1 0 9 q	
53	AltGr	Ignore		53	g	f	0x1ff	Not Returned	
54	Base	.	Period	54	b	c	< 46	0x2e	CL
54	Shift	:	Colon	54	s	c	< 58	0x3a	
54	Ctrl	PFK	110	54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK	111	54	a	f	0x6f	ESC [ 1 1 1 q	
54	AltGr	Ignore		54	g	f	0x1ff	Not Returned	
55	Base	-	Hyphen, Minus Sign	55	b	c	< 45	0x2d	CL
55	Shift	_	Underscore	55	s	c	< 95	0x5f	
55	Ctrl	SS1	Single shift 1	55	c	c	< 31	0x1f	
55	Alt	PFK	68	55	a	f	0x44	ESC [ 0 6 8 q	
55	AltGr	Ignore		55	g	f	0x1ff	Not Returned	
56	Not available on keyboard								
57	Base	Shift (Right)		None				Not Returned	
57	Shift	Shift (Right)		None				Not Returned	
57	Ctrl	Shift (Right)		None				Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
57	Alt	Shift (Right)	None	Reserved for IBM 5080	
57	AltGr	Shift (Right)	None	Not Returned	
58	Base	Control	None	Not Returned	
58	Shift	Control	None	Not Returned	
58	Ctrl	Control	None	Not Returned	
58	Alt	Control	None	Not Returned	
58	AltGr	Control	None	Not Returned	
59	Not available on keyboard				
60	Base	Alternate Shift	None	Not Returned	
60	Shift	Alternate Shift	None	Not Returned	
60	Ctrl	Alternate Shift	None	Not Returned	
60	Alt	Alternate Shift	None	Not Returned	
60	AltGr	Alternate Shift	None	Not Returned	
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff	Not Returned	
62	Base	Alternate Graphic Shift	None	Not Returned	
62	Shift	Alternate Graphic Shift	None	Not Returned	
62	Ctrl	Alternate Graphic Shift	None	Not Returned	
62	Alt	Alternate Graphic Shift	None	Not Returned	
62	AltGr	Alternate Graphic Shift	None	Not Returned	
63	Not available on keyboard				
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None	VTRM Previous Window	
64	Ctrl	VTRM Windows Window	None	VTRM Windows Window	
64	Alt	VTRM Next Window	None	VTRM Next Window	
64	AltGr	VTRM Next Window	None	VTRM Next Window	
65 - 74	Not available on keyboard				
75	Base	PFK 139 INS Toggle	75 b f 0x8b	ESC [ 1 3 9 q	
75	Shift	PFK 139 INS Toggle	75 s f 0x8b	ESC [ 1 3 9 q	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned
77	Not available on keyboard							
78	Not available on keyboard							
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned
80	Base	HOME		80	b	f	0x108	ESC [ H
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned
82	Not available on keyboard							
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
84	Base	CUD	Cursor Down	84	b	f	0x102	ESC [ B	
84	Shift	PFK	164	84	s	f	0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK	165	84	c	f	0xa5	ESC [ 1 6 5 q	
84	Alt	PFK	166	84	a	f	0xa6	ESC [ 1 6 6 q	
84	AltGr	Ignore		84	g	f	0x1ff	Not Returned	
85	Base	PFK	150	85	b	f	0x96	ESC [ 1 5 0 q	
85	Shift	PFK	151	85	s	f	0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK	152	85	c	f	0x98	ESC [ 1 5 2 q	
85	Alt	PFK	153	85	a	f	0x99	ESC [ 1 5 3 q	
85	AltGr	Ignore		85	g	f	0x1ff	Not Returned	
86	Base	PFK	154	86	b	f	0x9a	ESC [ 1 5 4 q	
86	Shift	PFK	155	86	s	f	0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK	156	86	c	f	0x9c	ESC [ 1 5 6 q	
86	Alt	PFK	157	86	a	f	0x9d	ESC [ 1 5 7 q	
86	AltGr	Ignore		86	g	f	0x1ff	Not Returned	
87	Not available on keyboard								
88	Not available on keyboard								
89	Base	CUF	Cursor Forward	89	b	f	0x103	ESC [ C	
89	Shift	PFK	167	89	s	f	0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK	168	89	c	f	0xa8	ESC [ 1 6 8 q	
89	Alt	PFK	169	89	a	f	0xa9	ESC [ 1 6 9 q	
89	AltGr	Ignore		89	g	f	0x1ff	Not Returned	
90	Base	NUM LOCK		None				Not Returned	
90	Shift	NUM LOCK		None				Not Returned	
90	Ctrl	DC3	Device Control 3	90	c	c	< 19	0x13	
90	Alt	PFK	170	90	a	f	0xaa	ESC [ 1 7 0 q	
90	AltGr	Ignore		90	g	f	0x1ff	Not Returned	
91	Base	┌	Upper Left Corner	91	b	c	< 218	0xda	
91	Shift	7	Seven	91	s	c	< 55	0x37	
91	Ctrl	PFK	172	91	c	f	0xac	ESC [ 1 7 2 q	
91	Alt	Alt + Num Entry		None				Return at Alt break	
91	AltGr	Ignore		91	g	f	0x1ff	Not Returned	



Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
92	Base	┌ Left Edge Int.	92	b	c	< 195	0xc3	
92	Shift	4 Four	92	s	c	< 52	0x34	
92	Ctrl	PFK 174	92	c	f	0xae	ESC [ 1 7 4 q	
92	Alt	Alt+Num Entry	None				Return at Alt break	
92	AltGr	Ignore	92	g	f	0x1ff	Not Returned	
93	Base	└ Lower Left Corner	93	b	c	< 192	0xc0	
93	Shift	1 One	93	s	c	< 49	0x31	
93	Ctrl	PFK 176	93	c	f	0xb0	ESC [ 1 7 6 q	
93	Alt	Alt+Num Entry	None				Return at Alt break	
93	AltGr	Ignore	93	g	f	0x1ff	Not Returned	
94	Not available on keyboard							
95	Base	÷ Division Sign	95	b	c	< 246	0xf6	
95	Shift	÷ Division Sign	95	s	c	< 246	0xf6	
95	Ctrl	PFK 179	95	c	f	0xb3	ESC [ 1 7 9 q	
95	Alt	PFK 180	95	a	f	0xb4	ESC [ 1 8 0 q	
95	AltGr	Ignore	95	g	f	0x1ff	Not Returned	
96	Base	┐ Top Edge Int.	96	b	c	< 194	0xc2	
96	Shift	8 Eight	96	s	c	< 56	0x38	
96	Ctrl	PFK 182	96	c	f	0xb6	ESC [ 1 8 2 q	
96	Alt	Alt+Num Entry	None				Return at Alt break	
96	AltGr	Ignore	96	g	f	0x1ff	Not Returned	
97	Base	┘ Center Intersection	97	b	c	< 197	0xc5	
97	Shift	5 Five	97	s	c	< 53	0x35	
97	Ctrl	PFK 184	97	c	f	0xb8	ESC [ 1 8 4 q	
97	Alt	Alt+Num Entry	None				Return at Alt break	
97	AltGr	Ignore	97	g	f	0x1ff	Not Returned	
98	Base	└ Bottom Edge Int.	98	b	c	< 193	0xc1	
98	Shift	2 Two	98	s	c	< 50	0x32	
98	Ctrl	PFK 186	98	c	f	0xba	ESC [ 1 8 6 q	
98	Alt	Alt+Num Entry	None				Return at Alt break	
98	AltGr	Ignore	98	g	f	0x1ff	Not Returned	
99	Base	Vertical Bar	99	b	c	< 179	0xb3	
99	Shift	0 Zero	99	s	c	< 48	0x30	
99	Ctrl	PFK 178	99	c	f	0xb2	ESC [ 1 7 8 q	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
99	Alt	Alt+Num Entry	None		Return at Alt break
99	AltGr	Ignore	99 g f 0x1ff		Not Returned
100	Base	× Multiplication Sign	100 b c < 158	0x9e	
100	Shift	× Multiplication Sign	100 s c < 158	0x9e	
100	Ctrl	PFK 187	100 c f 0xbb	ESC [ 1 8 7 q	
100	Alt	PFK 188	100 a f 0xbc	ESC [ 1 8 8 q	
100	AltGr	Ignore	100 g f 0x1ff		Not Returned
101	Base	⌘ Upper Right Corner	101 b c < 191	0xbf	
101	Shift	9 Nine	101 s c < 57	0x39	
101	Ctrl	PFK 190	101 c f 0xbe	ESC [ 1 9 0 q	
101	Alt	Alt+Num Entry	None		Return at Alt break
101	AltGr	Ignore	101 g f 0x1ff		Not Returned
102	Base	⌞ Right Edge Int.	102 b c < 180	0xb4	
102	Shift	6 Six	102 s c < 54	0x36	
102	Ctrl	PFK 192	102 c f 0xc0	ESC [ 1 9 2 q	
102	Alt	Alt+Num Entry	None		Return at Alt break
102	AltGr	Ignore	102 g f 0x1ff		Not Returned
103	Base	⌗ Lower Right Corner	103 b c < 217	0xd9	
103	Shift	3 Three	103 s c < 51	0x33	
103	Ctrl	PFK 194	103 c f 0xc2	ESC [ 1 9 4 q	
103	Alt	Alt+Num Entry	None		Return at Alt break
103	AltGr	Ignore	103 g f 0x1ff		Not Returned
104	Base	-- Horizontal Line	104 b c < 196	0xc4	
104	Shift	. Period	104 s c < 46	0x2e	
104	Ctrl	PFK 196	104 c f 0xc4	ESC [ 1 9 6 q	
104	Alt	PFK 197	104 a f 0xc5	ESC [ 1 9 7 q	
104	AltGr	Ignore	104 g f 0x1ff		Not Returned
105	Base	- Hyphen, Minus Sign	105 b c < 45	0x2d	
105	Shift	- Hyphen, Minus Sign	105 s c < 45	0x2d	
105	Ctrl	PFK 198	105 c f 0xc6	ESC [ 1 9 8 q	
105	Alt	PFK 199	105 a f 0xc7	ESC [ 1 9 9 q	
105	AltGr	Ignore	105 g f 0x1ff		Not Returned
106	Base	+ Plus Sign	106 b c < 43	0x2b	
106	Shift	+ Plus Sign	106 s c < 43	0x2b	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
100	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nmn	s	t		
115	Base	PFK	4	115	b	f	0x04	ESC [ 0 0 4 q
115	Shift	PFK	16	115	s	f	0x10	ESC [ 0 1 6 q
115	Ctrl	PFK	28	115	c	f	0x1c	ESC [ 0 2 8 q
115	Alt	PFK	40	115	a	f	0x28	ESC [ 0 4 0 q
115	AltGr	Ignore		115	g	f	0x1ff	Not Returned
116	Base	PFK	5	116	b	f	0x05	ESC [ 0 0 5 q
116	Shift	PFK	17	116	s	f	0x11	ESC [ 0 1 7 q
116	Ctrl	PFK	29	116	c	f	0x1d	ESC [ 0 2 9 q
116	Alt	PFK	41	116	a	f	0x29	ESC [ 0 4 1 q
116	AltGr	Ignore		116	g	f	0x1ff	Not Returned
117	Base	PFK	6	117	b	f	0x06	ESC [ 0 0 6 q
117	Shift	PFK	18	117	s	f	0x12	ESC [ 0 1 8 q
117	Ctrl	PFK	30	117	c	f	0x1e	ESC [ 0 3 0 q
117	Alt	PFK	42	117	a	f	0x2a	ESC [ 0 4 2 q
117	AltGr	Ignore		117	g	f	0x1ff	Not Returned
118	Base	PFK	7	118	b	f	0x07	ESC [ 0 0 7 q
118	Shift	PFK	19	118	s	f	0x13	ESC [ 0 1 9 q
118	Ctrl	PFK	31	118	c	f	0x1f	ESC [ 0 3 1 q
118	Alt	PFK	43	118	a	f	0x2b	ESC [ 0 4 3 q
118	AltGr	Ignore		118	g	f	0x1ff	Not Returned
119	Base	PFK	8	119	b	f	0x08	ESC [ 0 0 8 q
119	Shift	PFK	20	119	s	f	0x14	ESC [ 0 2 0 q
119	Ctrl	PFK	32	119	c	f	0x20	ESC [ 0 3 2 q
119	Alt	PFK	44	119	a	f	0x2c	ESC [ 0 4 4 q
119	AltGr	Ignore		119	g	f	0x1ff	Not Returned
120	Base	PFK	9	120	b	f	0x09	ESC [ 0 0 9 q
120	Shift	PFK	21	120	s	f	0x15	ESC [ 0 2 1 q
120	Ctrl	PFK	33	120	c	f	0x21	ESC [ 0 3 3 q
120	Alt	PFK	45	120	a	f	0x2d	ESC [ 0 4 5 q
120	AltGr	Ignore		120	g	f	0x1ff	Not Returned
121	Base	PFK	10	121	b	f	0x0a	ESC [ 0 1 0 q
121	Shift	PFK	22	121	s	f	0x16	ESC [ 0 2 2 q
121	Ctrl	PFK	34	121	c	f	0x22	ESC [ 0 3 4 q
121	Alt	PFK	46	121	a	f	0x2e	ESC [ 0 4 6 q
121	AltGr	Ignore		121	g	f	0x1ff	Not Returned

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
122	Base	PFK 11	122 b f 0x0b	ESC [ 0 1 1 q	
122	Shift	PFK 23	122 s f 0x17	ESC [ 0 2 3 q	
122	Ctrl	PFK 35	122 c f 0x23	ESC [ 0 3 5 q	
122	Alt	PFK 47	122 a f 0x2f	ESC [ 0 4 7 q	
122	AltGr	Ignore	122 g f 0x1ff	Not Returned	
123	Base	PFK 12	123 b f 0x0c	ESC [ 0 1 2 q	
123	Shift	PFK 24	123 s f 0x18	ESC [ 0 2 4 q	
123	Ctrl	PFK 36	123 c f 0x24	ESC [ 0 3 6 q	
123	Alt	PFK 48	123 a f 0x30	ESC [ 0 4 8 q	
123	AltGr	Ignore	123 g f 0x1ff	Not Returned	
124	Base	PFK 209	124 b f 0xd1	ESC [ 2 0 9 q	
124	Shift	PFK 210	124 s f 0xd2	ESC [ 2 1 0 q	
124	Ctrl	PFK 211	124 c f 0xd3	ESC [ 2 1 1 q	
124	Alt	PFK 212	124 a f 0xd4	ESC [ 2 1 2 q	
124	AltGr	Ignore	124 g f 0x1ff	Not Returned	
125	Base	PFK 213	125 b f 0xd5	ESC [ 2 1 3 q	
125	Shift	PFK 214	125 s f 0xd6	ESC [ 2 1 4 q	
125	Ctrl	PFK 215	125 c f 0xd7	ESC [ 2 1 5 q	
125	Alt	PFK 216	125 a f 0xd8	ESC [ 2 1 6 q	
125	AltGr	Ignore	125 g f 0x1ff	Not Returned	
126	Base	PFK 217	126 b f 0xd9	ESC [ 2 1 7 q	
126	Shift	PFK 218	126 s f 0xda	ESC [ 2 1 8 q	
126	Ctrl	DEL	126 c c < 127	0x7f	
126	Alt	DEL	126 a c < 127	0x7f	
126	AltGr	Ignore	126 g f 0x1ff	Not Returned	

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## Appendix J. Italian Keyboard Layout and Table

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This appendix contains the keyboard layout and keyboard table information for the Italian keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

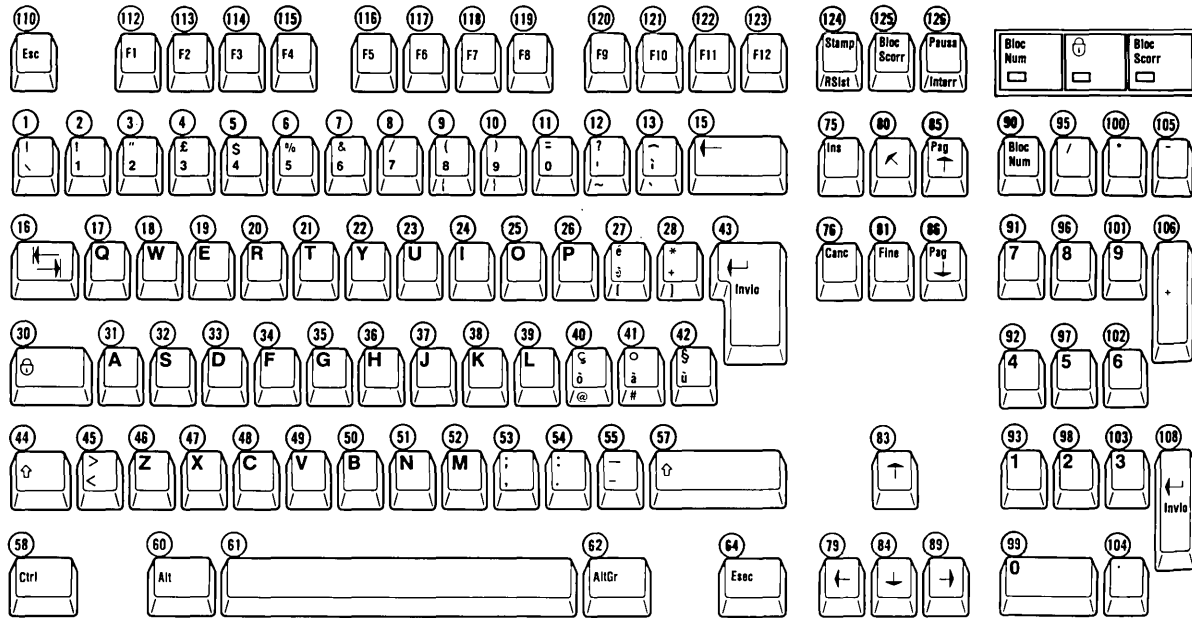
**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the **Alt** key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.



# Italian Keyboard Layout



## Italian Keyboard Table

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
1	Base	\ Reverse Slash	1 b c < 92	0x5c	
1	Shift	Pipe Symbol	1 s c < 124	0x7c	
1	Ctrl	SS4 Single Shift 4	1 c c 0x28	0x1c	
1	Alt	PFK 86	1 a f 0x56	ESC [ 0 8 6 q	
1	AltGr	Ignore	1 g f 0x1ff	Not Returned	
2	Base	1 One	2 b c < 49	0x31	
2	Shift	! Exclamation Point	2 s c < 33	0x21	
2	Ctrl	PFK 49	2 c f 0x31	ESC [ 0 4 9 q	
2	Alt	PFK 58	2 a f 0x3a	ESC [ 0 5 8 q	
2	AltGr	Ignore	2 g f 0x1ff	Not Returned	
3	Base	2 Two	3 b c < 50	0x32	
3	Shift	" Double Quote	3 s c < 34	0x22	
3	Ctrl	NUL Null	3 c c < 0	0x00	
3	Alt	PFK 59	3 a f 0x3b	ESC [ 0 5 9 q	
3	AltGr	Ignore	3 g f 0x1ff	Not Returned	
4	Base	3 Three	4 b c < 51	0x33	
4	Shift	£ Pounds Sterling	4 s c < 156	0x9c	
4	Ctrl	PFK 50	4 c f 0x32	ESC [ 0 5 0 q	
4	Alt	PFK 60	4 a f 0x3c	ESC [ 0 6 0 q	
4	AltGr	Ignore	4 g f 0x1ff	Not Returned	
5	Base	4 Four	5 b c < 52	0x34	
5	Shift	\$ Dollar Sign	5 s c < 36	0x24	
5	Ctrl	PFK 51	5 c f 0x33	ESC [ 0 5 1 q	
5	Alt	PFK 61	5 a f 0x3d	ESC [ 0 6 1 q	
5	AltGr	Ignore	5 g f 0x1ff	Not Returned	
6	Base	5 Five	6 b c < 53	0x35	
6	Shift	% Percent Sign	6 s c < 37	0x25	
6	Ctrl	PFK 52	6 c f 0x34	ESC [ 0 5 2 q	
6	Alt	PFK 62	6 a f 0x3e	ESC [ 0 6 2 q	
6	AltGr	Ignore	6 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
7	Base	6	Six	7	b	c	< 54	0x36	
7	Shift	&	Ampersand	7	s	c	< 38	0x26	
7	Ctrl	SS2	Single Shift 2	7	c	c	< 30	0x1e	
7	Alt	PFK	63	7	a	f	0x3f	ESC [ 0 6 3 q	
7	AltGr	Ignore		7	g	f	0x1ff	Not Returned	
8	Base	7	Seven	8	b	c	< 55	0x37	
8	Shift	/	Slash	8	s	c	< 47	0x2f	
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
8	AltGr	Ignore		8	g	f	0x1ff	Not Returned	
9	Base	8	Eight	9	b	c	< 56	0x38	
9	Shift	(	Left Parenthesis	9	s	c	< 40	0x28	
9	Ctrl	PFK	54	9	c	f	0x36	ESC [ 0 5 4 q	
9	Alt	PFK	65	9	a	f	0x41	ESC [ 0 6 5 q	
9	AltGr	{	Left Brace	9	g	c	< 123	0x7b	
10	Base	9	Nine	10	b	c	< 57	0x39	
10	Shift	)	Right Parenthesis	10	s	c	< 41	0x29	
10	Ctrl	PFK	55	10	c	c	0x37	ESC [ 0 5 5 q	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
10	AltGr	}	Right Brace	10	g	c	< 125	0x7d	
11	Base	0	Zero	11	b	c	< 48	0x30	
11	Shift	=	Equal Sign	11	s	c	< 61	0x3d	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
11	AltGr	Ignore		11	g	f	0x1ff	Not Returned	
12	Base	'	Quote/Apostrophe	12	b	c	< 39	0x27	
12	Shift	?	Question Mark	12	s	c	< 63	0x3f	
12	Ctrl	PFK	112	12	c	c	0x70	ESC [ 1 1 2 q	
12	Alt	PFK	113	12	a	f	0x71	ESC [ 1 1 3 q	
12	AltGr	~	Tilde Accent	12	g	c	< 126	0x7e	
13	Base	ì	i Grave Small	13	b	c	< 141	0x8d	
13	Shift	^	Circumflex Accent	13	s	d	< 94	0x5e	DK
13	Ctrl	PFK	69	13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK	70	13	a	f	0x46	ESC [ 0 7 0 q	
13	AltGr	`	Grave Accent	13	g	c	< 96	0x60	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes	
14		Not available on keyboard				
15	Base	BS	Back Space	15 b c < 8	0x08	
15	Shift	BS	Back Space	15 s c < 8	0x08	
15	Ctrl	DEL	Delete	15 c c < 127	0x7f	
15	Alt	PFK 71		15 a f 0x47	ESC [ 0 7 1 q	
15	AltGr	Ignore		15 g f 0x1ff	Not Returned	
16	Base	HT	Horizontal Tab	16 b c < 9	0x09	
16	Shift	CBT	Cursor Back Tab	16 s f 0x105	ESC [ Z	
16	Ctrl	PFK 72		16 c f 0x48	ESC [ 0 7 2 q	
16	Alt	PFK 73		16 a f 0x49	ESC [ 0 7 3 q	
16	AltGr	Ignore		16 g f 0x1ff	Not Returned	
17	Base	q	Lowercase q	17 b c < 113	0x71	CL
17	Shift	Q	Uppercase q	17 s c < 81	0x51	
17	Ctrl	DC1	Device Control 1	17 c c < 17	0x11	
17	Alt	PFK 74		17 a f 0x4a	ESC [ 0 7 4 q	
17	AltGr	Ignore		17 g f 0x1ff	Not Returned	
18	Base	w	Lowercase w	18 b c < 119	0x77	CL
18	Shift	W	Uppercase w	18 s c < 87	0x57	
18	Ctrl	ETB	End Trans Block	18 c c < 23	0x17	
18	Alt	PFK 75		18 a f 0x4b	ESC [ 0 7 5 q	
18	AltGr	Ignore		18 g f 0x1ff	Not Returned	
19	Base	e	Lowercase e	19 b c < 101	0x65	CL
19	Shift	E	Uppercase e	19 s c < 69	0x45	
19	Ctrl	ENQ	Enquiry	19 c c < 5	0x05	
19	Alt	PFK 76		19 a f 0x4c	ESC [ 0 7 6 q	
19	AltGr	Ignore		19 g f 0x1ff	Not Returned	
20	Base	r	Lowercase r	20 b c < 114	0x72	CL
20	Shift	R	Uppercase r	20 s c < 82	0x52	
20	Ctrl	DC2	Device Control 2	20 c c < 18	0x12	
20	Alt	PFK 77		20 a f 0x4d	ESC [ 0 7 7 q	
20	AltGr	Ignore		20 g f 0x1ff	Not Returned	
21	Base	t	Lowercase t	21 b c < 116	0x74	CL
21	Shift	T	Uppercase t	21 s c < 84	0x54	
21	Ctrl	DC4	Device Control 4	21 c c < 20	0x14	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes	
				nnn	s	t			-----
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore		21	g	f	0x1ff	Not Returned	
22	Base	y	Lowercase y	22	b	c	< 121	0x79	CL
22	Shift	Y	Uppercase y	22	s	c	< 89	0x59	
22	Ctrl	EM	End of Media	22	c	c	< 25	0x19	
22	Alt	PFK	79	22	a	f	0x4f	ESC [ 0 7 9 q	
22	AltGr	Ignore		22	g	f	0x1ff	Not Returned	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore		23	g	f	0x1ff	Not Returned	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore		24	g	f	0x1ff	Not Returned	
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
25	AltGr	Ignore		25	g	f	0x1ff	Not Returned	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
26	AltGr	Ignore		26	g	f	0x1ff	Not Returned	
27	Base	è	e Grave Small	27	b	c	< 138	0x8a	
27	Shift	é	e Acute Small	27	s	c	< 130	0x82	
27	Ctrl	ESC	Escape	27	c	c	< 27	0x1b	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
27	AltGr	[	Left Bracket	27	g	f	< 91	0x5b	
28	Base	+	Plus Sign	28	b	c	< 43	0x2b	
28	Shift	*	Asterisk	28	s	c	< 42	0x2a	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
28	Ctrl	SS3	Single Shift 3	28	c	c	< 29	0x1d	
28	Alt	PFK	85	28	a	f	0x55	ESC [ 0 8 5 q	
28	AltGr	]	Right Bracket	28	g	c	< 93	0x5d	
29	Not available on keyboard								
30	Base	Caps Lock		None				Not Returned	
30	Shift	Caps Lock		None				Not Returned	
30	Ctrl	Caps Lock		None				Not Returned	
30	Alt	Caps Lock		None				Not Returned	
30	AltGr	Caps Lock		None				Not Returned	
31	Base	a	Lowercase a	31	b	c	< 97	0x61	CL
31	Shift	A	Uppercase a	31	s	c	< 65	0x41	
31	Ctrl	SOH	Start of Header	31	c	c	< 1	0x01	
31	Alt	PFK	87	31	a	f	0x57	ESC [ 0 8 7 q	
31	AltGr	Ignore		31	g	f	0x1ff	Not Returned	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK	88	32	a	f	0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore		32	g	f	0x1ff	Not Returned	
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK	89	33	a	f	0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore		33	g	f	0x1ff	Not Returned	
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK	90	34	a	f	0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore		34	g	f	0x1ff	Not Returned	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore		35	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK 92		36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK 93		37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK 94		38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK 95		39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	ò	o Grave Small	40	b	c	< 149	0x95	
40	Shift	ç	c Cedilla Small	40	s	c	< 135	0x87	
40	Ctrl	PFK 96		40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK 97		40	a	f	0x61	ESC [ 0 9 7 q	
40	AltGr	@	At Sign	40	g	c	< 64	0x40	
41	Base	à	a Grave Small	41	b	c	< 133	0x85	
41	Shift	°	Degree Symbol	41	s	c	< 248	0xf8	
41	Ctrl	PFK 98		41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK 99		41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	#	Number Sign	41	g	c	< 35	0x23	
42	Base	ù	u Grave Small	42	b	c	< 151	0x97	
42	Shift	§	Section Symbol	42	s	c	< 245	0xf5	
42	Ctrl	PFK 57		42	c	f	0x39	ESC [ 0 5 7 q	
42	Alt	PFK 115		42	a	f	0x73	ESC [ 1 1 5 q	
42	AltGr	Ignore		42	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK 100		43	a	f	0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore		43	g	f	0x1ff	Not Returned	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
44	AltGr	Shift (Left)		None				Not Returned	
45	Base	<	Less Than Sign	45	b	c	< 60	0x3c	
45	Shift	>	Greater Than Sign	45	s	c	< 62	0x3e	
45	Ctrl	Ignore		45	c	f	0x1ff	Not Returned	
45	Alt	Ignore		45	a	f	0x1ff	Not Returned	
45	AltGr	Ignore		45	g	f	0x1ff	Not Returned	
46	Base	z	Lowercase z	46	b	c	< 122	0x7a	CL
46	Shift	Z	Uppercase z	46	s	c	< 90	0x5a	
46	Ctrl	SUB	Substitute Char.	46	c	c	< 26	0x1a	
46	Alt	PFK 101		46	a	f	0x65	ESC [ 1 0 1 q	
46	AltGr	Ignore		46	g	f	0x1ff	Not Returned	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK 102		47	a	f	0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore		47	g	f	0x1ff	Not Returned	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of Text	48	c	c	< 3	0x03	
48	Alt	PFK 103		48	a	f	0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore		48	g	f	0x1ff	Not Returned	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK 104		49	a	f	0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore		49	g	f	0x1ff	Not Returned	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK	105	50	a	f	0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore		50	g	f	0x1ff	Not Returned	
51	Base	n	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK	106	51	a	f	0x6a	ESC [ 1 0 6 q	
51	AltGr	Ignore		51	g	f	0x1ff	Not Returned	
52	Base	m	Lowercase m	52	b	c	< 109	0x6d	CL
52	Shift	M	Uppercase m	52	s	c	< 77	0x4d	
52	Ctrl	CR	Carriage Return	52	c	c	< 13	0x0d	
52	Alt	PFK	107	52	a	f	0x66	ESC [ 1 0 7 q	
52	AltGr	Ignore		52	g	f	0x1ff	Not Returned	
53	Base	,	Comma	53	b	c	< 44	0x2c	
53	Shift	;	Semicolon	53	s	c	< 59	0x3b	
53	Ctrl	PFK	108	53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK	109	53	a	f	0x6d	ESC [ 1 0 9 q	
53	AltGr	Ignore		53	g	f	0x1ff	Not Returned	
54	Base	.	Period	54	b	c	< 46	0x2e	
54	Shift	:	Colon	54	s	c	< 58	0x3a	
54	Ctrl	PFK	110	54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK	111	54	a	f	0x6f	ESC [ 1 1 1 q	
54	AltGr	Ignore		54	g	f	0x1ff	Not Returned	
55	Base	-	Hyphen, Minus Sign	55	b	c	< 45	0x2d	
55	Shift	_	Underscore	55	s	c	< 95	0x5f	
55	Ctrl	SS1	Single Shift 1	55	c	c	0x31	0x1f	
55	Alt	PFK	68	55	a	f	0x44	ESC [ 0 6 8 q	
55	AltGr	Ignore		55	g	f	0x1ff	Not Returned	
56	Not available on keyboard								
57	Base	Shift (Right)		None				Not Returned	
57	Shift	Shift (Right)		None				Not Returned	
57	Ctrl	Shift (Right)		None				Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
57	Alt	Switch Keyboard	None	Reserved for IBM 5080	
57	AltGr	Shift (Right)	None	Not Returned	
58	Base	Control	None	Not Returned	
58	Shift	Control	None	Not Returned	
58	Ctrl	Control	None	Not Returned	
58	Alt	Control	None	Not Returned	
58	AltGr	Control	None	Not Returned	
59	Not available on keyboard				
60	Base	Alternate Shift	None	Not Returned	
60	Shift	Alternate Shift	None	Not Returned	
60	Ctrl	Alternate Shift	None	Not Returned	
60	Alt	Alternate Shift	None	Not Returned	
60	AltGr	Alternate Shift	None	Not Returned	
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff	Not Returned	
62	Base	Alternate Graphic Shift	None	Not Returned	
62	Shift	Alternate Graphic Shift	None	Not Returned	
62	Ctrl	Alternate Graphic Shift	None	Not Returned	
62	Alt	Alternate Graphic Shift	None	Not Returned	
62	AltGr	Alternate Graphic Shift	None	Not Returned	
63	Not available on keyboard				
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None	VTRM Previous Window	
64	Ctrl	VTRM Windows Window	None	VTRM Windows Window	
64	Alt	VTRM Next Window	None	VTRM Next Window	
64	AltGr	VTRM Next Window	None	VTRM Next Window	
65 - 74	Not available on keyboard				
75	Base	PFK 139 INS Toggle	75 b f 0x8b	ESC [ 1 3 9 q	
75	Shift	PFK 139 INS Toggle	75 s f 0x8b	ESC [ 1 3 9 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q	
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q	
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned	
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P	
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P	
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q	
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M	
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned	
77	Not available on keyboard								
78	Not available on keyboard								
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D	
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q	
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q	
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q	
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned	
80	Base	HOME		80	b	f	0x108	ESC [ H	
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q	
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q	
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q	
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned	
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q	
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q	
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q	
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q	
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned	
82	Not available on keyboard								
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A	
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q	
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q	
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q	
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
84	Base	CUD Cursor Down	84 b f 0x102	ESC [ B	
84	Shift	PFK 164	84 s f 0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK 165	84 c f 0xa5	ESC [ 1 6 5 q	
84	Alt	PFK 166	84 a f 0xa6	ESC [ 1 6 6 q	
84	AltGr	Ignore	84 g f 0x1ff	Not Returned	
85	Base	PFK 150	85 b f 0x96	ESC [ 1 5 0 q	
85	Shift	PFK 151	85 s f 0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK 152	85 c f 0x98	ESC [ 1 5 2 q	
85	Alt	PFK 153	85 a f 0x99	ESC [ 1 5 3 q	
85	AltGr	Ignore	85 g f 0x1ff	Not Returned	
86	Base	PFK 154	86 b f 0x9a	ESC [ 1 5 4 q	
86	Shift	PFK 155	86 s f 0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK 156	86 c f 0x9c	ESC [ 1 5 6 q	
86	Alt	PFK 157	86 a f 0x9d	ESC [ 1 5 7 q	
86	AltGr	Ignore	86 g f 0x1ff	Not Returned	
87	Not available on keyboard				
88	Not available on keyboard				
89	Base	CUF Cursor Forward	89 b f 0x103	ESC [ C	
89	Shift	PFK 167	89 s f 0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK 168	89 c f 0xa8	ESC [ 1 6 8 q	
89	Alt	PFK 169	89 a f 0xa9	ESC [ 1 6 9 q	
89	AltGr	Ignore	89 g f 0x1ff	Not Returned	
90	Base	NUM LOCK	None	Not Returned	
90	Shift	NUM LOCK	None	Not Returned	
90	Ctrl	DC3 Device Control 3	90 c c < 19	0x13	
90	Alt	PFK 170	90 a f 0xaa	ESC [ 1 7 0 q	
90	AltGr	Ignore	90 g f 0x1ff	Not Returned	
91	Base	r Upper Left Corner	91 b c < 218	0xda	
91	Shift	7 Seven	91 s c < 55	0x37	
91	Ctrl	PFK 172	91 c f 0xac	ESC [ 1 7 2 q	
91	Alt	Alt + Num Entry	None	Return at Alt Break	
91	AltGr	Ignore	91 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
92	Base	┌ Left Edge Int.	92 b c < 195	0xc3	
92	Shift	4 Four	92 s c < 52	0x34	
92	Ctrl	PFK 174	92 c f 0xae	ESC [ 1 7 4 q	
92	Alt	Alt + Num Entry	None	Return at Alt Break	
92	AltGr	Ignore	92 g f 0x1ff	Not Returned	
93	Base	└ Bottom Edge Int.	93 b c < 192	0xc0	
93	Shift	1 One	93 s c < 49	0x31	
93	Ctrl	PFK 176	93 c f 0xb0	ESC [ 1 7 6 q	
93	Alt	Alt + Num Entry	None	Return at Alt Break	
93	AltGr	Ignore	93 g f 0x1ff	Not Returned	
94	Not available on keyboard				
95	Base	/ Slash	95 b c < 47	0x2f	
95	Shift	/ Slash	95 s c < 47	0x2f	
95	Ctrl	PFK 179	95 c f 0xb3	ESC [ 1 7 9 q	
95	Alt	PFK 180	95 a f 0xb4	ESC [ 1 8 0 q	
95	AltGr	Ignore	95 g f 0x1ff	Not Returned	
96	Base	┐ Top Edge Int.	96 b c < 194	0xc2	
96	Shift	8 Eight	96 s c < 56	0x38	
96	Ctrl	PFK 182	96 c f 0xb6	ESC [ 1 8 2 q	
96	Alt	Alt + Num Entry	None	Return at Alt Break	
96	AltGr	Ignore	96 g f 0x1ff	Not Returned	
97	Base	+ Center Intersection	97 b c < 197	0xc5	
97	Shift	5 Five	97 s c < 53	0x35	
97	Ctrl	PFK 184	97 c f 0xb8	ESC [ 1 8 4 q	
97	Alt	Alt + Num Entry	None	Return at Alt Break	
97	AltGr	Ignore	97 g f 0x1ff	Not Returned	
98	Base	└ Lower Left Corner	98 b c < 193	0xc1	
98	Shift	2 Two	98 s c < 50	0x32	
98	Ctrl	PFK 186	98 c f 0xba	ESC [ 1 8 6 q	
98	Alt	Alt + Num Entry	None	Return at Alt Break	
98	AltGr	Ignore	98 g f 0x1ff	Not Returned	
99	Base	Vertical Bar	99 b c < 179	0xb3	
99	Shift	0 Zero	99 s c < 48	0x30	
99	Ctrl	PFK 178	99 c f 0xb2	ESC [ 1 7 8 q	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
99	Alt	Alt + Num Entry	None				Return at Alt Break	
99	AltGr	Ignore	99	g	f	0x1ff	Not Returned	
100	Base	* Asterisk	100	b	c	< 42	0x2a	
100	Shift	* Asterisk	100	s	c	< 42	0x2a	
100	Ctrl	PFK 187	100	c	f	0xbb	ESC [ 1 8 7 q	
100	Alt	PFK 188	100	a	f	0xbc	ESC [ 1 8 8 q	
100	AltGr	Ignore	100	g	f	0x1ff	Not Returned	
101	Base	⌵ Upper Right Corner	101	b	c	< 191	0xbf	
101	Shift	9 Nine	101	s	c	< 57	0x39	
101	Ctrl	PFK 190	101	c	f	0xbe	ESC [ 1 9 0 q	
101	Alt	Alt + Num Entry	None				Return at Alt Break	
101	AltGr	Ignore	101	g	f	0x1ff	Not Returned	
102	Base	⌵ Right Edge Int.	102	b	c	< 180	0xb4	
102	Shift	6 Six	102	s	c	< 54	0x36	
102	Ctrl	PFK 192	102	c	f	0xc0	ESC [ 1 9 2 q	
102	Alt	Alt + Num Entry	None				Return at Alt Break	
102	AltGr	Ignore	102	g	f	0x1ff	Not Returned	
103	Base	⌵ Lower Right Corner	103	b	c	< 217	0xd9	
103	Shift	3 Three	103	s	c	< 51	0x33	
103	Ctrl	PFK 194	103	c	f	0xc2	ESC [ 1 9 4 q	
103	Alt	Alt + Num Entry	None				Return at Alt Break	
103	AltGr	Ignore	103	g	f	0x1ff	Not Returned	
104	Base	- Horizontal Line	104	b	c	< 196	0xc4	
104	Shift	. Period	104	s	c	< 46	0x2e	
104	Ctrl	PFK 196	104	c	f	0xc4	ESC [ 1 9 6 q	
104	Alt	PFK 197	104	a	f	0xc5	ESC [ 1 9 7 q	
104	AltGr	Ignore	104	g	f	0x1ff	Not Returned	
105	Base	- Hyphen, Minus Sign	105	b	c	< 45	0x2d	
105	Shift	- Hyphen, Minus Sign	105	s	c	< 45	0x2d	
105	Ctrl	PFK 198	105	c	f	0xc6	ESC [ 1 9 8 q	
105	Alt	PFK 199	105	a	f	0xc7	ESC [ 1 9 9 q	
105	AltGr	Ignore	105	g	f	0x1ff	Not Returned	
106	Base	+ Plus Sign	106	b	c	< 43	0x2b	
106	Shift	+ Plus Sign	106	s	c	< 43	0x2b	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
108	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
115	Base	PFK 4	115 b f 0x04	ESC [ 0 0 4 q	
115	Shift	PFK 16	115 s f 0x10	ESC [ 0 1 6 q	
115	Ctrl	PFK 28	115 c f 0x1c	ESC [ 0 2 8 q	
115	Alt	PFK 40	115 a f 0x28	ESC [ 0 4 0 q	
115	AltGr	Ignore	115 g f 0x1ff	Not Returned	
116	Base	PFK 5	116 b f 0x05	ESC [ 0 0 5 q	
116	Shift	PFK 17	116 s f 0x11	ESC [ 0 1 7 q	
116	Ctrl	PFK 29	116 c f 0x1d	ESC [ 0 2 9 q	
116	Alt	PFK 41	116 a f 0x29	ESC [ 0 4 1 q	
116	AltGr	Ignore	116 g f 0x1ff	Not Returned	
117	Base	PFK 6	117 b f 0x06	ESC [ 0 0 6 q	
117	Shift	PFK 18	117 s f 0x12	ESC [ 0 1 8 q	
117	Ctrl	PFK 30	117 c f 0x1e	ESC [ 0 3 0 q	
117	Alt	PFK 42	117 a f 0x2a	ESC [ 0 4 2 q	
117	AltGr	Ignore	117 g f 0x1ff	Not Returned	
118	Base	PFK 7	118 b f 0x07	ESC [ 0 0 7 q	
118	Shift	PFK 19	118 s f 0x13	ESC [ 0 1 9 q	
118	Ctrl	PFK 31	118 c f 0x1f	ESC [ 0 3 1 q	
118	Alt	PFK 43	118 a f 0x2b	ESC [ 0 4 3 q	
118	AltGr	Ignore	118 g f 0x1ff	Not Returned	
119	Base	PFK 8	119 b f 0x08	ESC [ 0 0 8 q	
119	Shift	PFK 20	119 s f 0x14	ESC [ 0 2 0 q	
119	Ctrl	PFK 32	119 c f 0x20	ESC [ 0 3 2 q	
119	Alt	PFK 44	119 a f 0x2c	ESC [ 0 4 4 q	
119	AltGr	Ignore	119 g f 0x1ff	Not Returned	
120	Base	PFK 9	120 b f 0x09	ESC [ 0 0 9 q	
120	Shift	PFK 21	120 s f 0x15	ESC [ 0 2 1 q	
120	Ctrl	PFK 33	120 c f 0x21	ESC [ 0 3 3 q	
120	Alt	PFK 45	120 a f 0x2d	ESC [ 0 4 5 q	
120	AltGr	Ignore	120 g f 0x1ff	Not Returned	
121	Base	PFK 10	121 b f 0x0a	ESC [ 0 1 0 q	
121	Shift	PFK 22	121 s f 0x16	ESC [ 0 2 2 q	
121	Ctrl	PFK 34	121 c f 0x22	ESC [ 0 3 4 q	
121	Alt	PFK 46	121 a f 0x2e	ESC [ 0 4 6 q	
121	AltGr	Ignore	121 g f 0x1ff	Not Returned	



Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q
122	AltGr	Ignore		122	g	f	0x1ff	Not Returned
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q
123	AltGr	Ignore		123	g	f	0x1ff	Not Returned
124	Base	PFK	209	124	b	f	0xd1	ESC [ 2 0 9 q
124	Shift	PFK	210	124	s	f	0xd2	ESC [ 2 1 0 q
124	Ctrl	PFK	211	124	c	f	0xd3	ESC [ 2 1 1 q
124	Alt	PFK	212	124	a	f	0xd4	ESC [ 2 1 2 q
124	AltGr	Ignore		124	g	f	0x1ff	Not Returned
125	Base	PFK	213	125	b	f	0xd5	ESC [ 2 1 3 q
125	Shift	PFK	214	125	s	f	0xd6	ESC [ 2 1 4 q
125	Ctrl	PFK	215	125	c	f	0xd7	ESC [ 2 1 5 q
125	Alt	PFK	216	125	a	f	0xd8	ESC [ 2 1 6 q
125	AltGr	Ignore		125	g	f	0x1ff	Not Returned
126	Base	PFK	217	126	b	f	0xd9	ESC [ 2 1 7 q
126	Shift	PFK	218	126	s	f	0xda	ESC [ 2 1 8 q
126	Ctrl	DEL		126	c	c	< 127	0x7f
126	Alt	DEL		126	a	c	< 127	0x7f
126	AltGr	Ignore		126	g	f	0x1ff	Not Returned

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## Appendix K. Japanese Keyboard Layout and Table

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This appendix contains the keyboard layout and keyboard table information for the Japanese keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, or Alt.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

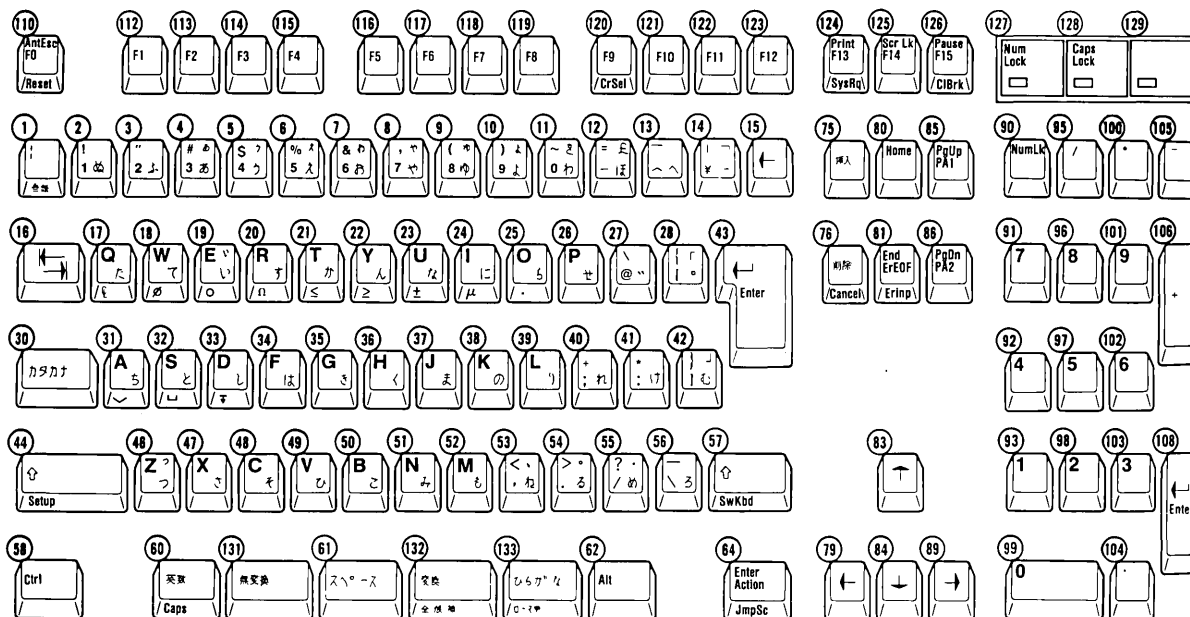
**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the **Alt** key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.

# Japanese Keyboard Layout



## Japanese Keyboard Table

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
1	Base	Ignore	1 b f 0x1ff	Not Returned	
1	Shift	Pipe Symbol	1 s c < 124	0x7c	
1	Ctrl	PFK 57	1 c f 0x39	ESC [ 0 5 7 q	
1	Alt	PFK 115	1 a f 0x73	ESC [ 1 1 5 q	
2	Base	1 One	2 b c < 49	0x31	
2	Shift	! Exclamation Point	2 s c < 33	0x21	
2	Ctrl	PFK 49	2 c f 0x31	ESC [ 0 4 9 q	
2	Alt	PFK 58	2 a f 0x3a	ESC [ 0 5 8 q	
3	Base	2 Two	3 b c < 50	0x32	
3	Shift	" Double Quote	3 s c < 34	0x22	
3	Ctrl	NUL Null	3 c c < 0	0x00	
3	Alt	PFK 59	3 a f 0x3b	ESC [ 0 5 9 q	
4	Base	3 Three	4 b c < 51	0x33	
4	Shift	# Number Sign	4 s c < 35	0x23	
4	Ctrl	PFK 50	4 c f 0x32	ESC [ 0 5 0 q	
4	Alt	PFK 60	4 a f 0x3c	ESC [ 0 6 0 q	
5	Base	4 Four	5 b c < 52	0x34	
5	Shift	\$ Dollar Sign	5 s c < 36	0x24	
5	Ctrl	PFK 51	5 c f 0x33	ESC [ 0 5 1 q	
5	Alt	PFK 61	5 a f 0x3d	ESC [ 0 6 1 q	
6	Base	5 Five	6 b c < 53	0x35	
6	Shift	% Percent Sign	6 s c < 37	0x25	
6	Ctrl	PFK 52	6 c f 0x34	ESC [ 0 5 2 q	
6	Alt	PFK 62	6 a f 0x3e	ESC [ 0 6 2 q	
7	Base	6 Six	7 b c < 54	0x36	
7	Shift	& Ampersand	7 s c < 38	0x26	
7	Ctrl	SS2 Single Shift 2	7 c c < 30	0x1e	
7	Alt	PFK 63	7 a f 0x3f	ESC [ 0 6 3 q	
8	Base	7 Seven	8 b c < 55	0x37	
8	Shift	' Quote, Apostrophe	8 s c < 39	0x27	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
9	Base	8	Eight	9	b	c	< 56	0x38	
9	Shift	(	Left Parenthesis	9	s	c	< 40	0x28	
9	Ctrl	PFK	54	9	c	f	0x36	ESC [ 0 5 4 q	
9	Alt	PFK	65	9	a	f	0x41	ESC [ 0 6 5 q	
10	Base	9	Nine	10	b	c	< 57	0x39	
10	Shift	)	Right Parenthesis	10	s	c	< 41	0x29	
10	Ctrl	PFK	55	10	c	f	0x37	ESC [ 0 5 5 q	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
11	Base	0	Zero	11	b	c	< 48	0x30	
11	Shift	~	Tilde Accent	11	s	c	< 126	0x7e	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
12	Base	-	Hyphen	12	b	c	< 45	0x2d	
12	Shift	=	Equal Sign	12	s	c	< 61	0x3d	
12	Ctrl	SS1	Single Shift 1	12	c	c	< 31	0x1f	
12	Alt	PFK	68	12	a	f	0x44	ESC [ 0 6 8 q	
13	Base	^	Circumflex Accent	13	b	c	< 94	0x5e	
13	Shift	Ignore		13	s	f	0x1ff	Not Returned	
13	Ctrl	PFK	69	13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK	70	13	a	f	0x46	ESC [ 0 7 0 q	
14	Base	Ignore		14	b	f	0x1ff	Not Returned	
14	Shift	Ignore		14	s	f	0x1ff	Not Returned	
14	Ctrl	Ignore		14	c	f	0x1ff	Not Returned	
14	Alt	Ignore		14	a	f	0x1ff	Not Returned	
15	Base	BS	Back Space	15	b	c	< 8	0x08	
15	Shift	BS	Back Space	15	s	c	< 8	0x08	
15	Ctrl	DEL	Delete	15	c	c	< 127	0x7f	
15	Alt	PFK	71	15	a	f	0x47	ESC [ 0 7 1 q	
16	Base	HT	Horizontal Tab	16	b	c	< 9	0x09	
16	Shift	CBT	Cursor Back Tab	16	s	f	0x105	ESC [ Z	
16	Ctrl	PFK	72	16	c	f	0x48	ESC [ 0 7 2 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
16	Alt	PFK	73	16	a	f	0x49	ESC [ 0 7 3 q	
17	Base	q	Lowercase q	17	b	c	< 113	0x71	CL
17	Shift	Q	Uppercase q	17	s	c	< 81	0x51	
17	Ctrl	DC1	Device Control 1	17	c	c	< 17	0x11	
17	Alt	PFK	74	17	a	f	0x4a	ESC [ 0 7 4 q	
18	Base	w	Lowercase w	18	b	c	< 119	0x77	CL
18	Shift	W	Uppercase w	18	s	c	< 87	0x57	
18	Ctrl	ETB	End Trans Block	18	c	c	< 23	0x17	
18	Alt	PFK	75	18	a	f	0x4b	ESC [ 0 7 5 q	
19	Base	e	Lowercase e	19	b	c	< 101	0x65	CL
19	Shift	E	Uppercase e	19	s	c	< 69	0x45	
19	Ctrl	ENQ	Enquiry	19	c	c	< 5	0x05	
19	Alt	PFK	76	19	a	f	0x4c	ESC [ 0 7 6 q	
20	Base	r	Lowercase r	20	b	c	< 114	0x72	CL
20	Shift	R	Uppercase r	20	s	c	< 82	0x52	
20	Ctrl	DC2	Device Control 2	20	c	c	< 18	0x12	
20	Alt	PFK	77	20	a	f	0x4d	ESC [ 0 7 7 q	
21	Base	t	Lowercase t	21	b	c	< 116	0x74	CL
21	Shift	T	Uppercase t	21	s	c	< 84	0x54	
21	Ctrl	DC4	Device Control 4	21	c	c	< 20	0x14	
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
22	Base	y	Lowercase y	22	b	c	< 121	0x79	CL
22	Shift	Y	Uppercase y	22	s	c	< 89	0x59	
22	Ctrl	EM	End of Media	22	c	c	< 25	0x19	
22	Alt	PFK	79	22	a	f	0x4f	ESC [ 0 7 9 q	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
27	Base	@	At Sign	27	b	c	< 64	0x40	CL
27	Shift	`	Grave Accent	27	s	c	< 96	0x60	
27	Ctrl	Ignore		27	c	f	0x1ff	Not Returned	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
28	Base	[	Left Bracket	28	b	c	< 91	0x5b	CL
28	Shift	{	Left Brace	28	s	c	< 123	0x7b	
28	Ctrl	ESC	Escape	28	c	c	< 27	0x1b	
28	Alt	PFK	85	28	a	f	0x55	ESC [ 0 8 5 q	
29	Not available on keyboard								
30	Base	Ignore		30	b	f	0x1ff	Not Returned	CL
30	Shift	Ignore		30	s	f	0x1ff	Not Returned	
30	Ctrl	Ignore		30	c	f	0x1ff	Not Returned	
30	Alt	Ignore		30	a	f	0x1ff	Not Returned	
31	Base	a	Lowercase a	31	b	c	< 97	0x61	CL
31	Shift	A	Uppercase a	31	s	c	< 65	0x41	
31	Ctrl	SOH	Start of Header	31	c	c	< 1	0x01	
31	Alt	PFK	87	31	a	f	0x57	ESC [ 0 8 7 q	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK	88	32	a	f	0x58	ESC [ 0 8 8 q	
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK	89	33	a	f	0x59	ESC [ 0 8 9 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK	90	34	a	f	0x5a	ESC [ 0 9 0 q	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK	92	36	a	f	0x5c	ESC [ 0 9 2 q	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK	93	37	a	f	0x5d	ESC [ 0 9 3 q	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK	94	38	a	f	0x5e	ESC [ 0 9 4 q	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK	95	39	a	f	0x5f	ESC [ 0 9 5 q	
40	Base	;	Semicolon	40	b	c	< 39	0x3b	
40	Shift	+	Plus Sign	40	s	c	< 43	0x2b	
40	Ctrl	PFK	96	40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK	97	40	a	f	0x61	ESC [ 0 9 7 q	
41	Base	:	Colon	41	b	c	< 58	0x3a	
41	Shift	*	Asterisk	41	s	c	< 42	0x2a	
41	Ctrl	PFK	98	41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK	99	41	a	f	0x63	ESC [ 0 9 9 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
42	Base	]	Right Bracket	42	b	c	< 93	0x5d	
42	Shift	}	Right Brace	42	s	c	< 125	0x7d	
42	Ctrl	SS3	Single Shift 3	42	c	c	< 29	0x1d	
42	Alt	Ignore		42	a	f	0x1ff	Not Returned	
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK 100		43	a	f	0x64	ESC [ 1 0 0 q	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
45	Not available on keyboard								
46	Base	z	Lowercase z	46	b	c	< 122	0x7a	CL
46	Shift	Z	Uppercase z	46	s	c	< 90	0x5a	
46	Ctrl	SUB	Substitute Char.	46	c	c	< 26	0x1a	
46	Alt	PFK 101		46	a	f	0x65	ESC [ 1 0 1 q	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK 102		47	a	f	0x66	ESC [ 1 0 2 q	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of Text	48	c	c	< 3	0x03	
48	Alt	PFK 103		48	a	f	0x67	ESC [ 1 0 3 q	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK 104		49	a	f	0x68	ESC [ 1 0 4 q	
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK 105		50	a	f	0x69	ESC [ 1 0 5 q	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes	
			nnn	s	t	-----			
51	Base	n	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK	106	51	a	f	0x65	ESC [ 1 0 6 q	
52	Base	m	Lowercase m	52	b	c	< 109	0x6d	CL
52	Shift	M	Uppercase m	52	s	c	< 77	0x4d	
52	Ctrl	CR	Carriage Return	52	c	c	< 13	0x0d	
52	Alt	PFK	107	52	a	f	0x66	ESC [ 1 0 7 q	
53	Base	,	Comma	53	b	c	< 44	0x2c	
53	Shift	<	Less Than Sign	53	s	c	< 60	0x3c	
53	Ctrl	PFK	108	53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK	109	53	a	f	0x6d	ESC [ 1 0 9 q	
54	Base	.	Period	54	b	c	< 46	0x2e	
54	Shift	>	Greater Than Sign	54	s	c	< 62	0x3e	
54	Ctrl	PFK	110	54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK	111	54	a	f	0x6f	ESC [ 1 1 1 q	
55	Base	/	Slash	55	b	c	< 47	0x2f	
55	Shift	?	Question Mark	55	s	c	< 63	0x3f	
55	Ctrl	PFK	112	55	c	f	0x70	ESC [ 1 1 2 q	
55	Alt	PFK	113	55	a	f	0x71	ESC [ 1 1 3 q	
56	Base	\	Reverse Slash	56	b	c	< 92	0x5c	
56	Shift	_	Underscore	56	s	c	< 95	0x5f	
56	Ctrl	SS4	Single Shift 4	56	c	c	< 28	0x1c	
56	Alt	PFK	86	56	a	c	0x56	ESC [ 0 8 6 q	
57	Base	Shift (Right)		None				Not Returned	Reserved for IBM 5080
57	Shift	Shift (Right)		None				Not Returned	
57	Ctrl	Shift (Right)		None				Not Returned	
57	Alt	Shift (Right)		None				Not Returned	
58	Base	Control		None				Not Returned	
58	Shift	Control		None				Not Returned	
58	Ctrl	Control		None				Not Returned	
58	Alt	Control		None				Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
59		Not available on keyboard			
60	Base	Ignore	None	Not Returned	
60	Shift	Ignore	None	Not Returned	
60	Ctrl	Ignore	None	Not Returned	
60	Alt	Caps Lock	None	Not Returned	
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
62	Base	Alternate Shift	None	Not Returned	
62	Shift	Alternate Shift	None	Not Returned	
62	Ctrl	Alternate Shift	None	Not Returned	
62	Alt	Alternate Shift	None	Not Returned	
63		Not available on keyboard			
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None	VTRM Previous Window	
64	Ctrl	VTRM Windows Window	None	VTRM Windows Window	
64	Alt	VTRM Next Window	None	VTRM Next Window	
65 - 74		Not available on keyboard			
75	Base	PFK 139 INS Toggle	75 b f 0x8b	ESC [ 1 3 9 q	
75	Shift	PFK 139 INS Toggle	75 s f 0x8b	ESC [ 1 3 9 q	
75	Ctrl	PFK 140	75 c f 0x8c	ESC [ 1 4 0 q	
75	Alt	PFK 141	75 a f 0x8d	ESC [ 1 4 1 q	
76	Base	DCH Delete Character	76 b f 0x151	ESC [ P	
76	Shift	DCH Delete Character	76 s f 0x151	ESC [ P	
76	Ctrl	PFK 142	76 c f 0x8e	ESC [ 1 4 2 q	
76	Alt	DL Delete Line	76 a f 0x153	ESC [ M	
77		Not available on keyboard			
78		Not available on keyboard			

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D	
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q	
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q	
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q	
80	Base	HOME		80	b	f	0x108	ESC [ H	
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q	
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q	
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q	
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q	
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q	
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q	
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q	
82	Not available on keyboard								
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A	
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q	
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q	
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q	
84	Base	CUD	Cursor Down	84	b	f	0x102	ESC [ B	
84	Shift	PFK	164	84	s	f	0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK	165	84	c	f	0xa5	ESC [ 1 6 5 q	
84	Alt	PFK	166	84	a	f	0xa6	ESC [ 1 6 6 q	
85	Base	PFK	150	85	b	f	0x96	ESC [ 1 5 0 q	
85	Shift	PFK	151	85	s	f	0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK	152	85	c	f	0x98	ESC [ 1 5 2 q	
85	Alt	PFK	153	85	a	f	0x99	ESC [ 1 5 3 q	
86	Base	PFK	154	86	b	f	0x9a	ESC [ 1 5 4 q	
86	Shift	PFK	155	86	s	f	0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK	156	86	c	f	0x9c	ESC [ 1 5 6 q	
86	Alt	PFK	157	86	a	f	0x9d	ESC [ 1 5 7 q	
87	Not available on keyboard								
88	Not available on keyboard								

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
89	Base	CUF Cursor Forward	89 b f 0x103	ESC [ C	
89	Shift	PFK 167	89 s f 0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK 168	89 c f 0xa8	ESC [ 1 6 8 q	
89	Alt	PFK 169	89 a f 0xa9	ESC [ 1 6 9 q	
90	Base	NUM LOCK	None	Not Returned	
90	Shift	NUM LOCK	None	Not Returned	
90	Ctrl	DC3 Device Control 3	90 c c < 19	0x13	
90	Alt	PFK 170	90 a f 0xaa	ESC [ 1 7 0 q	
91	Base	r Upper Left Corner	91 b c < 218	0xda	
91	Shift	7 Seven	91 s c < 55	0x37	
91	Ctrl	PFK 172	91 c f 0xac	ESC [ 1 7 2 q	
91	Alt	Alt+Num Entry	None	Return at Alt Break	
92	Base	└ Left Edge Int.	92 b c < 195	0xc3	
92	Shift	4 Four	92 s c < 52	0x34	
92	Ctrl	PFK 174	92 c f 0xae	ESC [ 1 7 4 q	
92	Alt	Alt+Num Entry	None	Return at Alt Break	
93	Base	└ Lower Left Corner	93 b c < 192	0xc0	
93	Shift	1 One	93 s c < 49	0x31	
93	Ctrl	PFK 176	93 c f 0xb0	ESC [ 1 7 6 q	
93	Alt	Alt+Num Entry	None	Return at Alt Break	
94	Not available on keyboard				
95	Base	/ Slash	95 b c < 47	0x2f	
95	Shift	/ Slash	95 s c < 47	0x2f	
95	Ctrl	PFK 179	95 c f 0xb3	ESC [ 1 7 9 q	
95	Alt	PFK 180	95 a f 0xb4	ESC [ 1 8 0 q	
96	Base	┘ Top Intersection	96 b c < 194	0xc2	
96	Shift	8 Eight	96 s c < 56	0x38	
96	Ctrl	PFK 182	96 c f 0xb6	ESC [ 1 8 2 q	
96	Alt	Alt+Num Entry	None	Return at Alt Break	
97	Base	┘ Center Intersection	97 b c < 197	0xc5	
97	Shift	5 Five	97 s c < 53	0x35	
97	Ctrl	PFK 184	97 c f 0xb8	ESC [ 1 8 4 q	
97	Alt	Alt+Num Entry	None	Return at Alt Break	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
98	Base	└	Bottom Intersection	98	b	c	< 193	0xc1	
98	Shift	2	Two	98	s	c	< 50	0x32	
98	Ctrl	PFK	186	98	c	f	0xba	ESC [ 1 8 6 q	
98	Alt	Alt + Num Entry		None				Return at Alt Break	
99	Base		Vertical Bar	99	b	c	< 179	0xb3	
99	Shift	0	Zero	99	s	c	< 48	0x30	
99	Ctrl	PFK	178	99	c	f	0xb2	ESC [ 1 7 8 q	
99	Alt	Alt + Num Entry		None				Return at Alt Break	
100	Base	*	Asterisk	100	b	c	< 42	0x2a	
100	Shift	*	Asterisk	100	s	c	< 42	0x2a	
100	Ctrl	PFK	187	100	c	f	0xbb	ESC [ 1 8 7 q	
100	Alt	PFK	188	100	a	f	0xbc	ESC [ 1 8 8 q	
101	Base	┐	Upper Right Corner	101	b	c	< 191	0xbf	
101	Shift	9	Nine	101	s	c	< 57	0x39	
101	Ctrl	PFK	190	101	c	f	0xbe	ESC [ 1 9 0 q	
101	Alt	Alt + Num Entry		None				Return at Alt Break	
102	Base	┘	Right Edge Int.	102	b	c	< 180	0xb4	
102	Shift	6	Six	102	s	c	< 54	0x36	
102	Ctrl	PFK	192	102	c	f	0xc0	ESC [ 1 9 2 q	
102	Alt	Alt + Num Entry		None				Return at Alt Break	
103	Base	└	Lower Right Corner	103	b	c	< 217	0xd9	
103	Shift	3	Three	103	s	c	< 51	0x33	
103	Ctrl	PFK	194	103	c	f	0xc2	ESC [ 1 9 4 q	
103	Alt	Alt + Num Entry		None				Return at Alt Break	
104	Base	-	Horizontal Line	104	b	c	< 196	0xc4	
104	Shift	.	Period	104	s	c	< 46	0x2e	
104	Ctrl	PFK	196	104	c	f	0xc4	ESC [ 1 9 6 q	
104	Alt	PFK	197	104	a	f	0xc5	ESC [ 1 9 7 q	
105	Base	-	Hyphen, Minus Sign	105	b	c	< 45	0x2d	
105	Shift	-	Hyphen, Minus Sign	105	s	c	< 45	0x2d	
105	Ctrl	PFK	198	105	c	f	0xc6	ESC [ 1 9 8 q	
105	Alt	PFK	199	105	a	f	0xc7	ESC [ 1 9 9 q	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Base	+	Plus Sign	106	b	c	< 43	0x2b	
106	Shift	+	Plus Sign	106	s	c	< 43	0x2b	
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
108	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
115	Base	PFK	4	115	b	f	0x04	ESC [ 0 0 4 q	
115	Shift	PFK	16	115	s	f	0x10	ESC [ 0 1 6 q	
115	Ctrl	PFK	28	115	c	f	0x1c	ESC [ 0 2 8 q	
115	Alt	PFK	40	115	a	f	0x28	ESC [ 0 4 0 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
116	Base	PFK	5	116	b	f	0x05	ESC [ 0 0 5 q	
116	Shift	PFK	17	116	s	f	0x11	ESC [ 0 1 7 q	
116	Ctrl	PFK	29	116	c	f	0x1d	ESC [ 0 2 9 q	
116	Alt	PFK	41	116	a	f	0x29	ESC [ 0 4 1 q	
117	Base	PFK	6	117	b	f	0x06	ESC [ 0 0 6 q	
117	Shift	PFK	18	117	s	f	0x12	ESC [ 0 1 8 q	
117	Ctrl	PFK	30	117	c	f	0x1e	ESC [ 0 3 0 q	
117	Alt	PFK	42	117	a	f	0x2a	ESC [ 0 4 2 q	
118	Base	PFK	7	118	b	f	0x07	ESC [ 0 0 7 q	
118	Shift	PFK	19	118	s	f	0x13	ESC [ 0 1 9 q	
118	Ctrl	PFK	31	118	c	f	0x1f	ESC [ 0 3 1 q	
118	Alt	PFK	43	118	a	f	0x2b	ESC [ 0 4 3 q	
119	Base	PFK	8	119	b	f	0x08	ESC [ 0 0 8 q	
119	Shift	PFK	20	119	s	f	0x14	ESC [ 0 2 0 q	
119	Ctrl	PFK	32	119	c	f	0x20	ESC [ 0 3 2 q	
119	Alt	PFK	44	119	a	f	0x2c	ESC [ 0 4 4 q	
120	Base	PFK	9	120	b	f	0x09	ESC [ 0 0 9 q	
120	Shift	PFK	21	120	s	f	0x15	ESC [ 0 2 1 q	
120	Ctrl	PFK	33	120	c	f	0x21	ESC [ 0 3 3 q	
120	Alt	PFK	45	120	a	f	0x2d	ESC [ 0 4 5 q	
121	Base	PFK	10	121	b	f	0x0a	ESC [ 0 1 0 q	
121	Shift	PFK	22	121	s	f	0x16	ESC [ 0 2 2 q	
121	Ctrl	PFK	34	121	c	f	0x22	ESC [ 0 3 4 q	
121	Alt	PFK	46	121	a	f	0x2e	ESC [ 0 4 6 q	
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q	
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q	
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q	
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q	
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q	
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q	
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q	
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q	

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Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
124	Base	PFK 209	124	b	f	0xd1	ESC [ 2 0 9 q	
124	Shift	PFK 210	124	s	f	0xd2	ESC [ 2 1 0 q	
124	Ctrl	PFK 211	124	c	f	0xd3	ESC [ 2 1 1 q	
124	Alt	PFK 212	124	a	f	0xd4	ESC [ 2 1 2 q	
125	Base	PFK 213	125	b	f	0xd5	ESC [ 2 1 3 q	
125	Shift	PFK 214	125	s	f	0xd6	ESC [ 2 1 4 q	
125	Ctrl	PFK 215	125	c	f	0xd7	ESC [ 2 1 5 q	
125	Alt	PFK 216	125	a	f	0xd8	ESC [ 2 1 6 q	
126	Base	PFK 217	126	b	f	0xd9	ESC [ 2 1 7 q	
126	Shift	PFK 218	126	s	f	0xda	ESC [ 2 1 8 q	
126	Ctrl	DEL	126	c	c	< 127	0x7f	
126	Alt	DEL	126	a	c	< 127	0x7f	
127-130 Not available on keyboard								
131	Base	Ignore	131	b	f	0x1ff	Not Returned	
131	Shift	Ignore	131	s	f	0x1ff	Not Returned	
131	Ctrl	Ignore	131	c	f	0x1ff	Not Returned	
131	Alt	Ignore	131	a	f	0x1ff	Not Returned	
132	Base	Ignore	132	b	f	0x1ff	Not Returned	
132	Shift	Ignore	132	s	f	0x1ff	Not Returned	
132	Ctrl	Ignore	132	c	f	0x1ff	Not Returned	
132	Alt	Ignore	132	a	f	0x1ff	Not Returned	
133	Base	Ignore	133	b	f	0x1ff	Not Returned	
133	Shift	Ignore	133	s	f	0x1ff	Not Returned	
133	Ctrl	Ignore	133	c	f	0x1ff	Not Returned	
133	Alt	Ignore	133	a	f	0x1ff	Not Returned	

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## Appendix L. Norwegian Keyboard Layout and Table

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This appendix contains the keyboard layout and keyboard table information for the Norwegian keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

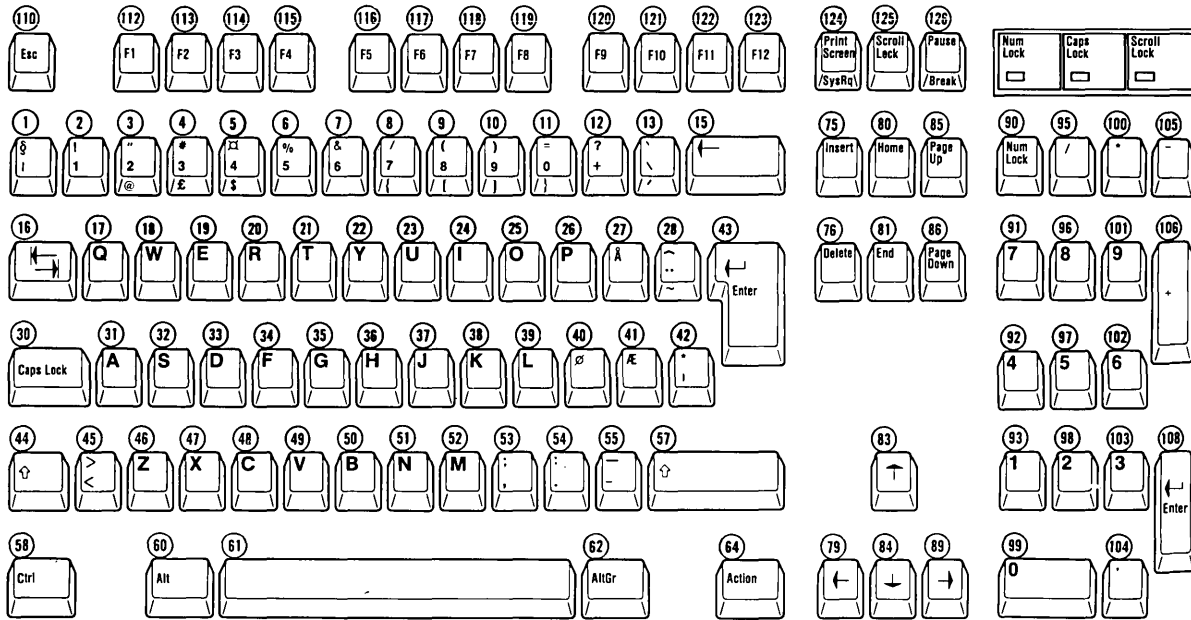
**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the **Alt** key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.

# Norwegian Keyboard Layout



## Norwegian Keyboard Table

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
1	Base	Pipe Symbol	1 b c < 124	0x7c	P1
1	Shift	§ Section Symbol	1 s c < 245	0xf5	
1	Ctrl	PFK 69	1 c f 0x45	ESC [ 0 6 9 q	
1	Alt	PFK 86	1 a f 0x56	ESC [ 0 8 6 q	
1	AltGr	Ignore	1 g f 0x1ff	Not Returned	
2	Base	1 One	2 b c < 49	0x31	
2	Shift	! Exclamation Point	2 s c < 33	0x21	
2	Ctrl	PFK 49	2 c f 0x31	ESC [ 0 4 9 q	
2	Alt	PFK 58	2 a f 0x3a	ESC [ 0 5 8 q	
2	AltGr	Ignore	2 g f 0x1ff	Not Returned	
3	Base	2 Two	3 b c < 50	0x32	
3	Shift	" Double Quote	3 s c < 34	0x22	
3	Ctrl	NUL Null	3 c c < 0	0x00	
3	Alt	PFK 59	3 a f 0x3b	ESC [ 0 5 9 q	
3	AltGr	@ At Sign	3 g c < 64	0x40	
4	Base	3 Three	4 b c < 51	0x33	
4	Shift	# Number Sign	4 s c < 35	0x23	
4	Ctrl	PFK 50	4 c f 0x32	ESC [ 0 5 0 q	
4	Alt	PFK 60	4 a f 0x3c	ESC [ 0 6 0 q	
4	AltGr	£ Pounds Sterling	4 a c < 156	0x9c	
5	Base	4 Four	5 b c < 52	0x34	
5	Shift	¤ Int. Curr. Symbol	5 s c < 207	0xcf	
5	Ctrl	PFK 51	5 c f 0x33	ESC [ 0 5 1 q	
5	Alt	PFK 61	5 a f 0x3d	ESC [ 0 6 1 q	
5	AltGr	\$ Dollar Sign	5 g c < 36	0x24	
6	Base	5 Five	6 b c < 53	0x35	
6	Shift	% Percent Sign	6 s c < 37	0x25	
6	Ctrl	PFK 52	6 c f 0x34	ESC [ 0 5 2 q	
6	Alt	PFK 62	6 a f 0x3e	ESC [ 0 6 2 q	
6	AltGr	Ignore	6 g f 0x1ff	Not Returned	
7	Base	6 Six	7 b c < 54	0x36	
7	Shift	& Ampersand	7 s c < 38	0x26	



Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
7	Ctrl	SS2 Single Shift 2	7 c c < 30	0x1e	
7	Alt	PFK 63	7 a f 0x3f	ESC [ 0 6 3 q	
7	AltGr	Ignore	7 g f 0x1ff	Not Returned	
8	Base	7 Seven	8 b c < 55	0x37	
8	Shift	/ Slash	8 s c < 47	0x2f	
8	Ctrl	PFK 53	8 c f 0x35	ESC [ 0 5 3 q	
8	Alt	PFK 64	8 a f 0x40	ESC [ 0 6 4 q	
8	AltGr	{ Left Brace	8 g c < 123	0x7b	
9	Base	8 Eight	9 b c < 56	0x38	
9	Shift	( Left Parenthesis	9 s c < 40	0x28	
9	Ctrl	ESC Escape	9 c c < 27	0x1b	
9	Alt	PFK 65	9 a f 0x41	ESC [ 0 6 5 q	
9	AltGr	[ Left Bracket	9 g c < 91	0x5b	
10	Base	9 Nine	10 b c < 57	0x39	
10	Shift	) Right Parenthesis	10 s c < 41	0x29	
10	Ctrl	SS3 Single Shift 3	10 c c < 29	0x1d	
10	Alt	PFK 66	10 a f 0x42	ESC [ 0 6 6 q	
10	AltGr	] Right Bracket	10 g c < 93	0x5d	
11	Base	0 Zero	11 b c < 48	0x30	
11	Shift	= Equal Sign	11 s c < 61	0x3d	
11	Ctrl	PFK 56	11 c f 0x38	ESC [ 0 5 6 q	
11	Alt	PFK 67	11 a f 0x43	ESC [ 0 6 7 q	
11	AltGr	} Right Brace	11 g c < 125	0x7d	
12	Base	+ Plus Sign	12 b c < 43	0x2b	
12	Shift	? Question Mark	12 s c < 63	0x3f	
12	Ctrl	PFK 112	12 c f 0x70	ESC [ 1 1 2 q	
12	Alt	PFK 113	12 a f 0x71	ESC [ 1 1 3 q	
12	AltGr	Ignore	12 g f 0x1ff	Not Returned	
13	Base	\ Reverse Slash	13 b c < 92	0x5c	
13	Shift	` Grave Accent	13 s d < 96	0x60	DK
13	Ctrl	SS4 Single Shift 4	13 c c < 28	0x1c	
13	Alt	PFK 70	13 a f 0x46	ESC [ 0 7 0 q	
13	AltGr	' Acute Accent	13 g d < 239	0xef	DK

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
14		Not available on keyboard							
15	Base	BS	Back Space	15	b	c	< 8	0x08	
15	Shift	BS	Back Space	15	s	c	< 8	0x08	
15	Ctrl	DEL	Delete	15	c	c	< 127	0x7f	
15	Alt	PFK	71	15	a	f	0x47	ESC [ 0 7 1 q	
15	AltGr	Ignore		15	g	f	0x1ff	Not Returned	
16	Base	HT	Horizontal Tab	16	b	c	< 9	0x09	
16	Shift	CBT	Cursor Back Tab	16	s	f	0x105	ESC [ Z	
16	Ctrl	PFK	72	16	c	f	0x48	ESC [ 0 7 2 q	
16	Alt	PFK	73	16	a	f	0x49	ESC [ 0 7 3 q	
16	AltGr	Ignore		16	g	f	0x1ff	Not Returned	
17	Base	q	Lowercase q	17	b	c	< 113	0x71	CL
17	Shift	Q	Uppercase q	17	s	c	< 81	0x51	
17	Ctrl	DC1	Device Control 1	17	c	c	< 17	0x11	
17	Alt	PFK	74	17	a	f	0x4a	ESC [ 0 7 4 q	
17	AltGr	Ignore		17	g	f	0x1ff	Not Returned	
18	Base	w	Lowercase w	18	b	c	< 119	0x77	CL
18	Shift	W	Uppercase w	18	s	c	< 87	0x57	
18	Ctrl	ETB	End Trans Block	18	c	c	< 23	0x17	
18	Alt	PFK	75	18	a	f	0x4b	ESC [ 0 7 5 q	
18	AltGr	Ignore		18	g	f	0x1ff	Not Returned	
19	Base	e	Lowercase e	19	b	c	< 101	0x65	CL
19	Shift	E	Uppercase e	19	s	c	< 69	0x45	
19	Ctrl	ENQ	Enquiry	19	c	c	< 5	0x05	
19	Alt	PFK	76	19	a	f	0x4c	ESC [ 0 7 6 q	
19	AltGr	Ignore		19	g	f	0x1ff	Not Returned	
20	Base	r	Lowercase r	20	b	c	< 114	0x72	CL
20	Shift	R	Uppercase r	20	s	c	< 82	0x52	
20	Ctrl	DC2	Device Control 2	20	c	c	< 18	0x12	
20	Alt	PFK	77	20	a	f	0x4d	ESC [ 0 7 7 q	
20	AltGr	Ignore		20	g	f	0x1ff	Not Returned	
21	Base	t	Lowercase t	21	b	c	< 116	0x74	CL
21	Shift	T	Uppercase t	21	s	c	< 84	0x54	
21	Ctrl	DC4	Device Control 4	21	c	c	< 20	0x14	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore		21	g	f	0x1ff	Not Returned	
22	Base	y	Lowercase y	22	b	c	< 121	0x79	CL
22	Shift	Y	Uppercase y	22	s	c	< 89	0x59	
22	Ctrl	EM	End of Media	22	c	c	< 25	0x19	
22	Alt	PFK	79	22	a	f	0x4f	ESC [ 0 7 9 q	
22	AltGr	Ignore		22	g	f	0x1ff	Not Returned	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore		23	g	f	0x1ff	Not Returned	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore		24	g	f	0x1ff	Not Returned	
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
25	AltGr	Ignore		25	g	f	0x1ff	Not Returned	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
26	AltGr	Ignore		26	g	f	0x1ff	Not Returned	
27	Base	à	a Overcircle Small	27	b	c	< 134	0x86	CL
27	Shift	À	a Overcircle Capital	27	s	c	< 143	0x8f	
27	Ctrl	PFK	54	27	c	f	0x36	ESC [ 0 5 4 q	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
27	AltGr	Ignore		27	g	f	0x1ff	Not Returned	
28	Base	¨	Diaeresis Accent	28	b	d	< 249	0xf9	DK
28	Shift	^	Circumflex Accent	28	s	d	< 94	0x5e	DK

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
28	Ctrl	PFK 55	28 c f 0x37	ESC [ 0 5 5 q	
28	Alt	PFK 85	28 a f 0x55	ESC [ 0 8 5 q	
28	AltGr	~ Tilde Accent	28 g d < 126	0x7e	DK
29	Not available on keyboard				
30	Base	Caps Lock	None	Not Returned	
30	Shift	Caps Lock	None	Not Returned	
30	Ctrl	Caps Lock	None	Not Returned	
30	Alt	Caps Lock	None	Not Returned	
30	AltGr	Caps Lock	None	Not Returned	
31	Base	a Lowercase a	31 b c < 97	0x61	CL
31	Shift	A Uppercase a	31 s c < 65	0x41	
31	Ctrl	SOH Start of Header	31 c c < 1	0x01	
31	Alt	PFK 87	31 a f 0x57	ESC [ 0 8 7 q	
31	AltGr	Ignore	31 g f 0x1ff	Not Returned	
32	Base	s Lowercase s	32 b c < 115	0x73	CL
32	Shift	S Uppercase s	32 s c < 83	0x53	
32	Ctrl	DC3 Device Control 3	32 c c < 19	0x13	
32	Alt	PFK 88	32 a f 0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore	32 g f 0x1ff	Not Returned	
33	Base	d Lowercase d	33 b c < 100	0x64	CL
33	Shift	D Uppercase d	33 s c < 68	0x44	
33	Ctrl	EOT End of Transmission	33 c c < 4	0x04	
33	Alt	PFK 89	33 a f 0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore	33 g f 0x1ff	Not Returned	
34	Base	f Lowercase f	34 b c < 102	0x66	CL
34	Shift	F Uppercase f	34 s c < 70	0x46	
34	Ctrl	ACK Acknowledge	34 c c < 6	0x06	
34	Alt	PFK 90	34 a f 0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore	34 g f 0x1ff	Not Returned	
35	Base	g Lowercase g	35 b c < 103	0x67	CL
35	Shift	G Uppercase g	35 s c < 71	0x47	
35	Ctrl	BEL Bell	35 c c < 7	0x07	
35	Alt	PFK 91	35 a f 0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore	35 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK 92		36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK 93		37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK 94		38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK 95		39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	ø	o Slash Small	40	b	c	< 155	0x9b	CL
40	Shift	Ø	o Slash Capital	40	s	c	< 157	0x9d	
40	Ctrl	PFK 96		40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK 97		40	a	f	0x61	ESC [ 0 9 7 q	
40	AltGr	Ignore		40	g	f	0x1ff	Not Returned	
41	Base	æ	ae Diphthong Small	41	s	c	< 145	0x91	CL
41	Shift	Æ	ae Diphthong Capital	41	s	c	< 146	0x92	
41	Ctrl	PFK 98		41	c	f	0x62	ESC [ 0 9 8 q'	
41	Alt	PFK 99		41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	Ignore		41	g	f	0x1ff	Not Returned	
42	Base	'	Quote, Apostrophe	42	b	c	< 39	0x27	
42	Shift	*	Asterisk	42	s	c	< 42	0x2a	
42	Ctrl	PFK 57		42	c	f	0x39	ESC [ 0 5 7 q	
42	Alt	PFK 115		42	c	f	0x73	ESC [ 1 1 5 q	
42	AltGr	Ignore		42	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK	100	43	a	f	0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore		43	g	f	0x1ff	Not Returned	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
44	AltGr	Shift (Left)		None				Not Returned	
45	Base	<	Less Than Sign	45	b	c	< 60	0x3c	
45	Shift	>	Greater Than Sign	45	s	c	< 62	0x3e	
45	Ctrl	Ignore		45	c	f	0x1ff	Not Returned	
45	Alt	Ignore		45	a	f	0x1ff	Not Returned	
45	AltGr	Ignore		45	g	f	0x1ff	Not Returned	
46	Base	z	Lowercase z	46	b	c	< 122	0x7a	CL
46	Shift	Z	Uppercase z	46	s	c	< 90	0x5a	
46	Ctrl	SUB	Substitute Char.	46	c	c	< 26	0x1a	
46	Alt	PFK	101	46	a	f	0x65	ESC [ 1 0 1 q	
46	AltGr	Ignore		46	g	f	0x1ff	Not Returned	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK	102	47	a	f	0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore		47	g	f	0x1ff	Not Returned	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of Text	48	c	c	< 3	0x03	
48	Alt	PFK	103	48	a	f	0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore		48	g	f	0x1ff	Not Returned	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK	104	49	a	f	0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore		49	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK	105	50	a	f	0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore		50	g	f	0x1ff	Not Returned	
51	Base	n	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK	106	51	a	f	0x6a	ESC [ 1 0 6 q	
51	AltGr	Ignore		51	g	f	0x1ff	Not Returned	
52	Base	m	Lowercase m	52	b	c	< 109	0x6d	CL
52	Shift	M	Uppercase m	52	s	c	< 77	0x4d	
52	Ctrl	CR	Carriage Return	52	c	c	< 13	0x0d	
52	Alt	PFK	107	52	a	f	0x66	ESC [ 1 0 7 q	
52	AltGr	Ignore		52	g	f	0x1ff	Not Returned	
53	Base	,	Comma	53	b	c	< 44	0x2c	
53	Shift	;	Semicolon	53	s	c	< 59	0x3b	
53	Ctrl	PFK	108	53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK	109	53	a	f	0x6d	ESC [ 1 0 9 q	
53	AltGr	Ignore		53	g	f	0x1ff	Not Returned	
54	Base	.	Period	54	b	c	< 46	0x2e	
54	Shift	:	Colon	54	s	c	< 58	0x3a	
54	Ctrl	PFK	110	54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK	111	54	a	f	0x6f	ESC [ 1 1 1 q	
54	AltGr	Ignore		54	g	f	0x1ff	Not Returned	
55	Base	-	Hyphen, Minus Sign	55	b	c	< 45	0x2d	
55	Shift	_	Underscore	55	s	c	< 95	0x5f	
55	Ctrl	SS1	Single Shift 1	55	c	c	< 31	0x1f	
55	Alt	PFK	68	55	a	f	0x44	ESC [ 0 6 8 q	
55	AltGr	Ignore		55	g	f	0x1ff	Not Returned	
56	Not available on keyboard								
57	Base	Shift (Right)		None				Not Returned	
57	Shift	Shift (Right)		None				Not Returned	
57	Ctrl	Shift (Right)		None				Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition n n n s t -----	Returned String	Notes
57	Alt	Shift (Right)	None	Reserved for IBM 5080	
57	AltGr	Shift (Right)	None	Not Returned	
58	Base	Control	None	Not Returned	
58	Shift	Control	None	Not Returned	
58	Ctrl	Control	None	Not Returned	
58	Alt	Control	None	Not Returned	
58	AltGr	Control	None	Not Returned	
59	Not available on keyboard				
60	Base	Alternate Shift	None	Not Returned	
60	Shift	Alternate Shift	None	Not Returned	
60	Ctrl	Alternate Shift	None	Not Returned	
60	Alt	Alternate Shift	None	Not Returned	
60	AltGr	Alternate Shift	None	Not Returned	
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff	Not Returned	
62	Base	Alternate Graphic Shift	None	Not Returned	
62	Shift	Alternate Graphic Shift	None	Not Returned	
62	Ctrl	Alternate Graphic Shift	None	Not Returned	
62	Alt	Alternate Graphic Shift	None	Not Returned	
62	AltGr	Alternate Graphic Shift	None	Not Returned	
63	Not available on keyboard				
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None	VTRM Previous Window	
64	Ctrl	VTRM Windows Window	None	VTRM Windows Window	
64	Alt	VTRM Next Window	None	VTRM Next Window	
64	AltGr	VTRM Next Window	None	VTRM Next Window	
65 - 74	Not available on keyboard				
75	Base	PFK 139 INS Toggle	75 b f 0x8b	ESC [ 1 3 9 q	
75	Shift	PFK 139 INS Toggle	75 s f 0x8b	ESC [ 1 3 9 q	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q	
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q	
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned	
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P	
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P	
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q	
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M	
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned	
77	Not available on keyboard								
78	Not available on keyboard								
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D	
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q	
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q	
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q	
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned	
80	Base	HOME		80	b	f	0x108	ESC [ H	
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q	
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q	
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q	
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned	
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q	
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q	
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q	
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q	
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned	
82	Not available on keyboard								
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A	
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q	
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q	
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q	
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
84	Base	CUD Cursor Down	84 b f 0x102	ESC [ B	
84	Shift	PFK 164	84 s f 0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK 165	84 c f 0xa5	ESC [ 1 6 5 q	
84	Alt	PFK 166	84 a f 0xa6	ESC [ 1 6 6 q	
84	AltGr	Ignore	84 g f 0x1ff	Not Returned	
85	Base	PFK 150	85 b f 0x96	ESC [ 1 5 0 q	
85	Shift	PFK 151	85 s f 0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK 152	85 c f 0x98	ESC [ 1 5 2 q	
85	Alt	PFK 153	85 a f 0x99	ESC [ 1 5 3 q	
85	AltGr	Ignore	85 g f 0x1ff	Not Returned	
86	Base	PFK 154	86 b f 0x9a	ESC [ 1 5 4 q	
86	Shift	PFK 155	86 s f 0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK 156	86 c f 0x9c	ESC [ 1 5 6 q	
86	Alt	PFK 157	86 a f 0x9d	ESC [ 1 5 7 q	
86	AltGr	Ignore	86 g f 0x1ff	Not Returned	
87	Not available on keyboard				
88	Not available on keyboard				
89	Base	CUF Cursor Forward	89 b f 0x103	ESC [ C	
89	Shift	PFK 167	89 s f 0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK 168	89 c f 0xa8	ESC [ 1 6 8 q	
89	Alt	PFK 169	89 a f 0xa9	ESC [ 1 6 9 q	
89	AltGr	Ignore	89 g f 0x1ff	Not Returned	
90	Base	NUM LOCK	None	Not Returned	
90	Shift	NUM LOCK	None	Not Returned	
90	Ctrl	DC3 Device Control 3	90 c c < 19	0x13	
90	Alt	PFK 170	90 a f 0xaa	ESC [ 1 7 0 q	
90	AltGr	Ignore	90 g f 0x1ff	Not Returned	
91	Base	┌ Upper Left Corner	91 b c < 218	0xda	
91	Shift	7 Seven	91 s c < 55	0x37	
91	Ctrl	PFK 172	91 c f 0xac	ESC [ 1 7 2 q	
91	Alt	Alt+Num Entry	None	Return at Alt Break	
91	AltGr	Ignore	91 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
92	Base	┐ Left Edge Int.	92 b c < 195	0xc3	
92	Shift	4 Four	92 s c < 52	0x34	
92	Ctrl	PFK 174	92 c f 0xae	ESC [ 1 7 4 q	
92	Alt	Alt+Num Entry	None	Return at Alt Break	
92	AltGr	Ignore	92 g f 0x1ff	Not Returned	
93	Base	└ Lower Left Corner	93 b c < 192	0xc0	
93	Shift	1 One	93 s c < 49	0x31	
93	Ctrl	PFK 176	93 c f 0xb0	ESC [ 1 7 6 q	
93	Alt	Alt+Num Entry	None	Return at Alt Break	
93	AltGr	Ignore	93 g f 0x1ff	Not Returned	
94	Not available on keyboard				
95	Base	/ Slash	95 b c < 47	0x2f	
95	Shift	/ Slash	95 s c < 47	0x2f	
95	Ctrl	PFK 179	95 c f 0xb3	ESC [ 1 7 9 q	
95	Alt	PFK 180	95 a f 0xb4	ESC [ 1 8 0 q	
95	AltGr	Ignore	95 g f 0x1ff	Not Returned	
96	Base	┘ Top Edge Int.	96 b c < 194	0xc2	
96	Shift	8 Eight	96 s c < 56	0x38	
96	Ctrl	PFK 182	96 c f 0xb6	ESC [ 1 8 2 q	
96	Alt	Alt+Num Entry	None	Return at Alt break	
96	AltGr	Ignore	96 g f 0x1ff	Not Returned	
97	Base	┌ Center Intersection	97 b c < 197	0xc5	
97	Shift	5 Five	97 s c < 53	0x35	
97	Ctrl	PFK 184	97 c f 0xb8	ESC [ 1 8 4 q	
97	Alt	Alt+Num Entry	None	Return at Alt break	
97	AltGr	Ignore	97 g f 0x1ff	Not Returned	
98	Base	└ Bottom Intersection	98 b c < 193	0xc1	
98	Shift	2 Two	98 s c < 50	0x32	
98	Ctrl	PFK 186	98 c f 0xba	ESC [ 1 8 6 q	
98	Alt	Alt+Num Entry	None	Return at Alt break	
98	AltGr	Ignore	98 g f 0x1ff	Not Returned	
99	Base	Vertical Bar	99 b c < 179	0xb3	
99	Shift	0 Zero	99 s c < 48	0x30	
99	Ctrl	PFK 178	99 c f 0xb2	ESC [ 1 7 8 q	

Key Posn.	Shift	Assignment	Keyboard nnn	Definition s t -----	Returned String	Notes
99	Alt	Alt + Num Entry	None			Return at Alt break
99	AltGr	Ignore	99	g f	0x1ff	Not Returned
100	Base	* Asterisk	100	b c	< 42	0x2a
100	Shift	* Asterisk	100	s c	< 42	0x2a
100	Ctrl	PFK 187	100	c f	0xbb	ESC [ 1 8 7 q
100	Alt	PFK 188	100	a f	0xbc	ESC [ 1 8 8 q
100	AltGr	Ignore	100	g f	0x1ff	Not Returned
101	Base	⌵ Upper Right Corner	101	b c	< 191	0xbf
101	Shift	9 Nine	101	s c	< 57	0x39
101	Ctrl	PFK 190	101	c f	0xbe	ESC [ 1 9 0 q
101	Alt	Alt + Num Entry	None			Return at Alt break
101	AltGr	Ignore	101	g f	0x1ff	Not Returned
102	Base	⌵ Right Edge Int.	102	b c	< 180	0xb4
102	Shift	6 Six	102	s c	< 54	0x36
102	Ctrl	PFK 192	102	c f	0xc0	ESC [ 1 9 2 q
102	Alt	Alt + Num Entry	None			Return at Alt break
102	AltGr	Ignore	102	g f	0x1ff	Not Returned
103	Base	⌵ Lower Right Corner	103	b c	< 217	0xd9
103	Shift	3 Three	103	s c	< 51	0x33
103	Ctrl	PFK 194	103	c f	0xc2	ESC [ 1 9 4 q
103	Alt	Alt + Num Entry	None			Return at Alt break
103	AltGr	Ignore	103	g f	0x1ff	Not Returned
104	Base	- Horizontal Line	104	b c	< 196	0xc4
104	Shift	, Comma	104	s c	< 44	0x2c
104	Ctrl	PFK 196	104	c f	0xc4	ESC [ 1 9 6 q
104	Alt	PFK 197	104	a f	0xc5	ESC [ 1 9 7 q
104	AltGr	Ignore	104	g f	0x1ff	Not Returned
105	Base	- Hyphen, Minus Sign	105	b c	< 45	0x2d
105	Shift	- Hyphen, Minus Sign	105	s c	< 45	0x2d
105	Ctrl	PFK 198	105	c f	0xc6	ESC [ 1 9 8 q
105	Alt	PFK 199	105	a f	0xc7	ESC [ 1 9 9 q
105	AltGr	Ignore	105	g f	0x1ff	Not Returned
106	Base	+ Plus Sign	106	b c	< 43	0x2b
106	Shift	+ Plus Sign	106	s c	< 43	0x2b

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
108	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
115	Base	PFK 4	115	b	f	0x04	ESC [ 0 0 4 q	
115	Shift	PFK 16	115	s	f	0x10	ESC [ 0 1 6 q	
115	Ctrl	PFK 28	115	c	f	0x1c	ESC [ 0 2 8 q	
115	Alt	PFK 40	115	a	f	0x28	ESC [ 0 4 0 q	
115	AltGr	Ignore	115	g	f	0x1ff	Not Returned	
116	Base	PFK 5	116	b	f	0x05	ESC [ 0 0 5 q	
116	Shift	PFK 17	116	s	f	0x11	ESC [ 0 1 7 q	
116	Ctrl	PFK 29	116	c	f	0x1d	ESC [ 0 2 9 q	
116	Alt	PFK 41	116	a	f	0x29	ESC [ 0 4 1 q	
116	AltGr	Ignore	116	g	f	0x1ff	Not Returned	
117	Base	PFK 6	117	b	f	0x06	ESC [ 0 0 6 q	
117	Shift	PFK 18	117	s	f	0x12	ESC [ 0 1 8 q	
117	Ctrl	PFK 30	117	c	f	0x1e	ESC [ 0 3 0 q	
117	Alt	PFK 42	117	a	f	0x2a	ESC [ 0 4 2 q	
117	AltGr	Ignore	117	g	f	0x1ff	Not Returned	
118	Base	PFK 7	118	b	f	0x07	ESC [ 0 0 7 q	
118	Shift	PFK 19	118	s	f	0x13	ESC [ 0 1 9 q	
118	Ctrl	PFK 31	118	c	f	0x1f	ESC [ 0 3 1 q	
118	Alt	PFK 43	118	a	f	0x2b	ESC [ 0 4 3 q	
118	AltGr	Ignore	118	g	f	0x1ff	Not Returned	
119	Base	PFK 8	119	b	f	0x08	ESC [ 0 0 8 q	
119	Shift	PFK 20	119	s	f	0x14	ESC [ 0 2 0 q	
119	Ctrl	PFK 32	119	c	f	0x20	ESC [ 0 3 2 q	
119	Alt	PFK 44	119	a	f	0x2c	ESC [ 0 4 4 q	
119	AltGr	Ignore	119	g	f	0x1ff	Not Returned	
120	Base	PFK 9	120	b	f	0x09	ESC [ 0 0 9 q	
120	Shift	PFK 21	120	s	f	0x15	ESC [ 0 2 1 q	
120	Ctrl	PFK 33	120	c	f	0x21	ESC [ 0 3 3 q	
120	Alt	PFK 45	120	a	f	0x2d	ESC [ 0 4 5 q	
120	AltGr	Ignore	120	g	f	0x1ff	Not Returned	
121	Base	PFK 10	121	b	f	0x0a	ESC [ 0 1 0 q	
121	Shift	PFK 22	121	s	f	0x16	ESC [ 0 2 2 q	
121	Ctrl	PFK 34	121	c	f	0x22	ESC [ 0 3 4 q	
121	Alt	PFK 46	121	a	f	0x2e	ESC [ 0 4 6 q	
121	AltGr	Ignore	121	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q	
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q	
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q	
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q	
122	AltGr	Ignore		122	g	f	0x1ff	Not Returned	
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q	
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q	
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q	
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q	
123	AltGr	Ignore		123	g	f	0x1ff	Not Returned	
124	Base	PFK	209	124	b	f	0xd1	ESC [ 2 0 9 q	
124	Shift	PFK	210	124	s	f	0xd2	ESC [ 2 1 0 q	
124	Ctrl	PFK	211	124	c	f	0xd3	ESC [ 2 1 1 q	
124	Alt	PFK	212	124	a	f	0xd4	ESC [ 2 1 2 q	
124	AltGr	Ignore		124	g	f	0x1ff	Not Returned	
125	Base	PFK	213	125	b	f	0xd5	ESC [ 2 1 3 q	
125	Shift	PFK	214	125	s	f	0xd6	ESC [ 2 1 4 q	
125	Ctrl	PFK	215	125	c	f	0xd7	ESC [ 2 1 5 q	
125	Alt	PFK	216	125	a	f	0xd8	ESC [ 2 1 6 q	
125	AltGr	Ignore		125	g	f	0x1ff	Not Returned	
126	Base	PFK	217	126	b	f	0xd9	ESC [ 2 1 7 q	
126	Shift	PFK	218	126	s	f	0xda	ESC [ 2 1 8 q	
126	Ctrl	DEL		126	c	c	< 127	0x7f	
126	Alt	DEL		126	a	c	< 127	0x7f	
126	AltGr	Ignore		126	g	f	0x1ff	Not Returned	

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# Appendix M. Portuguese Keyboard Layout and Table



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This appendix contains the keyboard layout and keyboard table information for the Portuguese keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

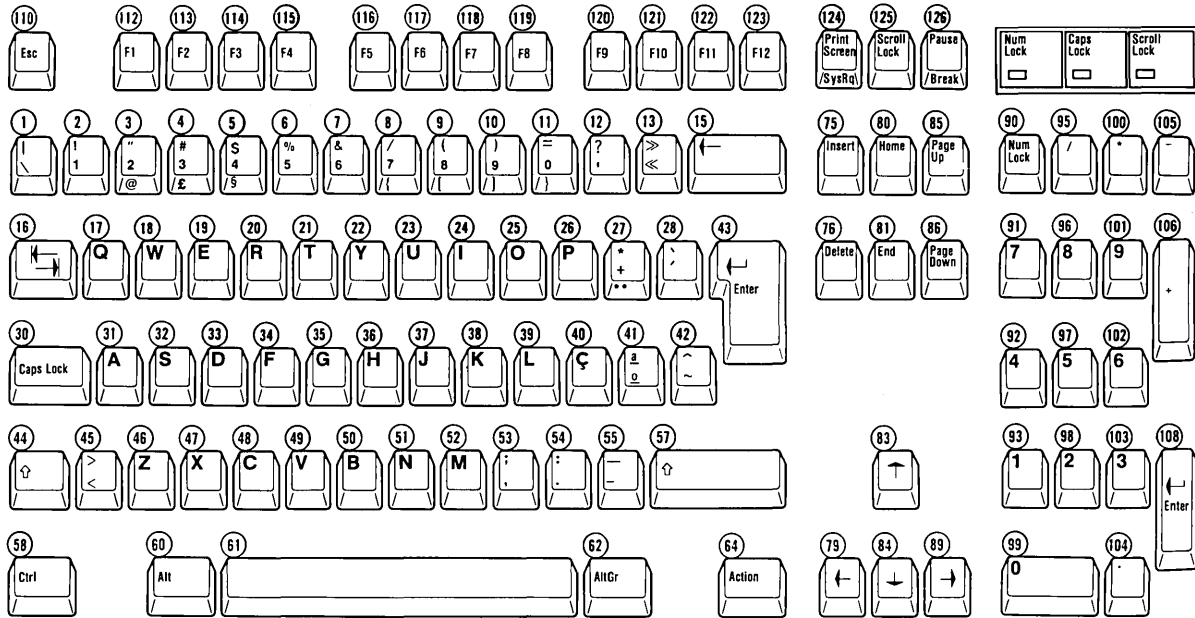
**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the **Alt** key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.

# Portuguese Keyboard Layout



## Portuguese Keyboard Table

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
1	Base	\ Reverse Slash	1 b c < 92	0x5c	
1	Shift	Pipe Symbol	1 s c < 124	0x7c	
1	Ctrl	SS4 Single Shift 4	1 c c < 28	0x1c	
1	Alt	PFK 86	1 a f 0x56	ESC [ 0 8 6 q	
1	AltGr	Ignore	1 g f 0x1ff	Not Returned	
2	Base	1 One	2 b c < 49	0x31	
2	Shift	! Exclamation Point	2 s c < 33	0x21	
2	Ctrl	PFK 49	2 c f 0x31	ESC [ 0 4 9 q	
2	Alt	PFK 58	2 a f 0x3a	ESC [ 0 5 8 q	
2	AltGr	Ignore	2 g f 0x1ff	Not Returned	
3	Base	2 Two	3 b c < 50	0x32	
3	Shift	" Double Quote	3 s c < 34	0x22	
3	Ctrl	NUL Null	3 c c < 0	0x00	
3	Alt	PFK 59	3 a f 0x3b	ESC [ 0 5 9 q	
3	AltGr	@ At Sign	3 g c < 64	0x40	
4	Base	3 Three	4 b c < 51	0x33	
4	Shift	# Number Sign	4 s c < 35	0x23	
4	Ctrl	PFK 50	4 c f 0x32	ESC [ 0 5 0 q	
4	Alt	PFK 60	4 a f 0x3c	ESC [ 0 6 0 q	
4	AltGr	£ Pounds Sterling	4 g c < 156	0x9c	
5	Base	4 Four	5 b c < 52	0x34	
5	Shift	\$ Dollar Sign	5 s c < 36	0x24	
5	Ctrl	PFK 51	5 c f 0x33	ESC [ 0 5 1 q	
5	Alt	PFK 61	5 a f 0x3d	ESC [ 0 6 1 q	
5	AltGr	§ Section Symbol	5 g c < 245	0xf5	
6	Base	5 Five	6 b c < 53	0x35	
6	Shift	% Percent Sign	6 s c < 37	0x25	
6	Ctrl	PFK 52	6 c f 0x34	ESC [ 0 5 2 q	
6	Alt	PFK 62	6 a f 0x3e	ESC [ 0 6 2 q	
6	AltGr	Ignore	6 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
7	Base	6	Six	7	b	c	< 54	0x36	
7	Shift	&	Ampersand	7	s	c	< 38	0x26	
7	Ctrl	SS2	Single Shift 2	7	c	c	< 30	0x1e	
7	Alt	PFK 63		7	a	f	0x3f	ESC [ 0 6 3 q	
7	AltGr	Ignore		7	g	f	0x1ff	Not Returned	
8	Base	7	Seven	8	b	c	< 55	0x37	
8	Shift	/	Slash	8	s	c	< 47	0x2f	
8	Ctrl	PFK 53		8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK 64		8	a	f	0x40	ESC [ 0 6 4 q	
8	AltGr	{	Left Brace	8	g	c	< 123	0x7b	
9	Base	8	Eight	9	b	c	< 56	0x38	
9	Shift	(	Left Parenthesis	9	s	c	< 40	0x28	
9	Ctrl	ESC	Escape	9	c	c	< 27	0x1b	
9	Alt	PFK 65		9	a	f	0x41	ESC [ 0 6 5 q	
9	AltGr	[	Left Bracket	9	g	c	< 91	0x5b	
10	Base	9	Nine	10	b	c	< 57	0x39	
10	Shift	)	Right Parenthesis	10	s	c	< 41	0x29	
10	Ctrl	SS3	Single Shift 3	10	c	c	< 29	0x1d	
10	Alt	PFK 66		10	a	f	0x42	ESC [ 0 6 6 q	
10	AltGr	]	Right Bracket	10	g	c	< 93	0x5d	
11	Base	0	Zero	11	b	c	< 48	0x30	
11	Shift	=	Equal Sign	11	s	c	< 61	0x3d	
11	Ctrl	PFK 56		11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK 67		11	a	f	0x43	ESC [ 0 6 7 q	
11	AltGr	}	Right Brace	11	g	c	< 125	0x7d	
12	Base	'	Quote/Apostrophe	12	b	c	< 39	0x27	
12	Shift	?	Question Mark	12	s	c	< 63	0x3f	
12	Ctrl	PFK 112		12	c	f	0x70	ESC [ 1 1 2 q	
12	Alt	PFK 113		12	a	f	0x71	ESC [ 1 1 3 q	
12	AltGr	Ignore		12	g	f	0x1ff	Not Returned	
13	Base	«	Left Angle Quotes	13	b	c	< 174	0xae	
13	Shift	»	Right Angle Quotes	13	s	c	< 175	0xaf	
13	Ctrl	PFK 69		13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK 70		13	a	f	0x46	ESC [ 0 7 0 q	
13	AltGr	Ignore		13	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
14		Not available on keyboard							
15	Base	BS	Back Space	15	b	c	< 8	0x08	
15	Shift	BS	Back Space	15	s	c	< 8	0x08	
15	Ctrl	DEL	Delete	15	c	c	< 127	0x7f	
15	Alt	PFK	71	15	a	f	0x47	ESC [ 0 7 1 q	
15	AltGr	Ignore		15	g	f	0x1ff	Not Returned	
16	Base	HT	Horizontal Tab	16	b	c	< 9	0x09	
16	Shift	CBT	Cursor Back Tab	16	s	f	0x105	ESC [ Z	
16	Ctrl	PFK	72	16	c	f	0x48	ESC [ 0 7 2 q	
16	Alt	PFK	73	16	a	f	0x49	ESC [ 0 7 3 q	
16	AltGr	Ignore		16	g	f	0x1ff	Not Returned	
17	Base	q	Lowercase q	17	b	c	< 113	0x71	CL
17	Shift	Q	Uppercase q	17	s	c	< 81	0x51	
17	Ctrl	DC1	Device Control 1	17	c	c	< 17	0x11	
17	Alt	PFK	74	17	a	f	0x4a	ESC [ 0 7 4 q	
17	AltGr	Ignore		17	g	f	0x1ff	Not Returned	
18	Base	w	Lowercase w	18	b	c	< 119	0x77	CL
18	Shift	W	Uppercase w	18	s	c	< 87	0x57	
18	Ctrl	ETB	End Trans Block	18	c	c	< 23	0x17	
18	Alt	PFK	75	18	a	f	0x4b	ESC [ 0 7 5 q	
18	AltGr	Ignore		18	g	f	0x1ff	Not Returned	
19	Base	e	Lowercase e	19	b	c	< 101	0x65	CL
19	Shift	E	Uppercase e	19	s	c	< 69	0x45	
19	Ctrl	ENQ	Enquiry	19	c	c	< 5	0x05	
19	Alt	PFK	76	19	a	f	0x4c	ESC [ 0 7 6 q	
19	AltGr	Ignore		19	g	f	0x1ff	Not Returned	
20	Base	r	Lowercase r	20	b	c	< 114	0x72	CL
20	Shift	R	Uppercase r	20	s	c	< 82	0x52	
20	Ctrl	DC2	Device Control 2	20	c	c	< 18	0x12	
20	Alt	PFK	77	20	a	f	0x4d	ESC [ 0 7 7 q	
20	AltGr	Ignore		20	g	f	0x1ff	Not Returned	
21	Base	t	Lowercase t	21	b	c	< 116	0x74	CL
21	Shift	T	Uppercase t	21	s	c	< 84	0x54	
21	Ctrl	DC4	Device Control 4	21	c	c	< 20	0x14	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore		21	g	f	0x1ff	Not Returned	
22	Base	y	Lowercase y	22	b	c	< 121	0x79	CL
22	Shift	Y	Uppercase y	22	s	c	< 89	0x59	
22	Ctrl	EM	End of Media	22	c	c	< 25	0x19	
22	Alt	PFK	79	22	a	f	0x4f	ESC [ 0 7 9 q	
22	AltGr	Ignore		22	g	f	0x1ff	Not Returned	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore		23	g	f	0x1ff	Not Returned	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore		24	g	f	0x1ff	Not Returned	
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
25	AltGr	Ignore		25	g	f	0x1ff	Not Returned	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
26	AltGr	Ignore		26	g	f	0x1ff	Not Returned	
27	Base	+	Plus Sign	27	b	c	< 43	0x2b	
27	Shift	*	Asterisk	27	s	c	< 42	0x2a	
27	Ctrl	PFK	54	27	c	f	0x36	ESC [ 0 5 4 q	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
27	AltGr	¨	Diaeresis Accent	27	g	d	< 249	0xef	DK
28	Base	´	Acute Accent	28	b	d	< 239	0x1fdb	DK
28	Shift	`	Grave Accent	28	s	d	< 96	0x60	DK

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
28	Ctrl	PFK	55	28	c	f	0x37	ESC [ 0 5 5 q	
28	Alt	PFK	85	28	a	f	0x55	ESC [ 0 8 5 q	
28	AltGr	Ignore		28	g	f	0x1ff	Not Returned	
29	Not available on keyboard								
30	Base	Caps Lock		None				Not Returned	
30	Shift	Caps Lock		None				Not Returned	
30	Ctrl	Caps Lock		None				Not Returned	
30	Alt	Caps Lock		None				Not Returned	
30	AltGr	Caps Lock		None				Not Returned	
31	Base	a	Lowercase a	31	b	c	< 97	0x61	CL
31	Shift	A	Uppercase a	31	s	c	< 65	0x41	
31	Ctrl	SOH	Start of Header	31	c	c	< 1	0x01	
31	Alt	PFK	87	31	a	f	0x57	ESC [ 0 8 7 q	
31	AltGr	Ignore		31	g	f	0x1ff	Not Returned	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK	88	32	a	f	0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore		32	g	f	0x1ff	Not Returned	
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK	89	33	a	f	0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore		33	g	f	0x1ff	Not Returned	
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK	90	34	a	f	0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore		34	g	f	0x1ff	Not Returned	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore		35	g	f	0x1ff	Not Returned	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK 92		36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK 93		37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK 94		38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK 95		39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	ç	c Cedilla Small	40	b	c	< 135	0x87	CL
40	Shift	Ç	c Cedilla Capital	40	s	c	< 128	0x80	
40	Ctrl	PFK 96		40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK 97		40	a	f	0x61	ESC [ 0 9 7 q	
40	AltGr	Ignore		40	g	f	0x1ff	Not Returned	
41	Base	o	Ordinal Ind., Masc.	41	b	d	< 167	0xa7	
41	Shift	a	Ordinal Ind., Fem.	41	b	d	< 166	0xa6	
41	Ctrl	PFK 98		41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK 99		41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	Ignore		41	g	f	0x1ff	Not Returned	
42	Base	~	Tilde Accent	42	b	c	< 126	0x7e	DK
42	Shift	^	Circumflex Accent	42	s	c	< 156	0x5e	DK
42	Ctrl	PFK 57		42	c	f	0x39	ESC [ 0 5 7 q	
42	Alt	PFK 115		42	a	f	0x73	ESC [ 1 1 5 q	
42	AltGr	Ignore		42	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK 100		43	a	f	0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore		43	g	f	0x1ff	Not Returned	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
44	AltGr	Shift (Left)		None				Not Returned	
45	Base	<	Less Than Sign	45	b	c	< 60	0x3c	
45	Shift	>	Greater Than Sign	45	s	c	< 62	0x3e	
45	Ctrl	Ignore		45	c	f	0x1ff	Not Returned	
45	Alt	Ignore		45	a	f	0x1ff	Not Returned	
45	AltGr	Ignore		45	g	f	0x1ff	Not Returned	
46	Base	z	Lowercase z	46	b	c	< 122	0x7a	CL
46	Shift	Z	Uppercase z	46	s	c	< 90	0x5a	
46	Ctrl	SUB	Substitute Char	46	c	c	< 26	0x1a	
46	Alt	PFK 101		46	a	f	0x65	ESC [ 1 0 1 q	
46	AltGr	Ignore		46	g	f	0x1ff	Not Returned	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK 102		47	a	f	0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore		47	g	f	0x1ff	Not Returned	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of Text	48	c	c	< 3	0x03	
48	Alt	PFK 103		48	a	f	0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore		48	g	f	0x1ff	Not Returned	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK 104		49	a	f	0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore		49	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
50	Base	b Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK 105	50	a	f	0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore	50	g	f	0x1ff	Not Returned	
51	Base	n Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK 106	51	a	f	0x65	ESC [ 1 0 6 q	
51	AltGr	Ignore	51	g	f	0x1ff	Not Returned	
52	Base	m Lowercase m	52	b	c	< 109	0x6d	CL
52	Shift	M Uppercase m	52	s	c	< 77	0x4d	
52	Ctrl	CR Carriage Return	52	c	c	< 13	0x0d	
52	Alt	PFK 107	52	a	f	0x66	ESC [ 1 0 7 q	
52	AltGr	Ignore	52	g	f	0x1ff	Not Returned	
53	Base	, Comma	53	b	c	< 44	0x2c	
53	Shift	; Semicolon	53	s	c	< 59	0x3b	
53	Ctrl	PFK 108	53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK 109	53	a	f	0x6d	ESC [ 1 0 9 q	
53	AltGr	Ignore	53	g	f	0x1ff	Not Returned	
54	Base	. Period	54	b	c	< 46	0x2e	
54	Shift	: Colon	54	s	c	< 58	0x3a	
54	Ctrl	PFK 110	54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK 111	54	a	f	0x6f	ESC [ 1 1 1 q	
54	AltGr	Ignore	54	g	f	0x1ff	Not Returned	
55	Base	- Hyphen, Minus Sign	55	b	c	< 45	0x2d	
55	Shift	_ Underscore	55	s	c	< 95	0x5f	
55	Ctrl	SS1 Single Shift 1	55	c	c	< 31	0x1f	
55	Alt	PFK 68	55	a	f	0x44	ESC [ 0 6 8 q	
55	AltGr	Ignore	55	g	f	0x1ff	Not Returned	
56	Not available on keyboard							
57	Base	Shift (Right)	None				Not Returned	
57	Shift	Shift (Right)	None				Not Returned	
57	Ctrl	Shift (Right)	None				Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition n n n s t -----	Returned String	Notes
57	Alt	Switch Keyboard	None		Reserved for IBM 5080
57	AltGr	Shift (Right)	None		Not Returned
58	Base	Control	None		Not Returned
58	Shift	Control	None		Not Returned
58	Ctrl	Control	None		Not Returned
58	Alt	Control	None		Not Returned
58	AltGr	Control	None		Not Returned
59	Not available on keyboard				
60	Base	Alternate Shift	None		Not Returned
60	Shift	Alternate Shift	None		Not Returned
60	Ctrl	Alternate Shift	None		Not Returned
60	Alt	Alternate Shift	None		Not Returned
60	AltGr	Alternate Shift	None		Not Returned
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff		Not Returned
62	Base	Alternate Graphic Shift	None		Not Returned
62	Shift	Alternate Graphic Shift	None		Not Returned
62	Ctrl	Alternate Graphic Shift	None		Not Returned
62	Alt	Alternate Graphic Shift	None		Not Returned
62	AltGr	Alternate Graphic Shift	None		Not Returned
63	Not available on keyboard				
64	Base	PFK 114	64 b f 0x72		ESC [ 1 1 4 q
64	Shift	VTRM Previous Window	None		VTRM Previous Window
64	Ctrl	VTRM Windows Window	None		VTRM Windows Window
64	Alt	VTRM Next Window	None		VTRM Next Window
64	AltGr	VTRM Next Window	None		VTRM Next Window
65 - 74	Not available on keyboard				
75	Base	PFK 139 INS Toggle	75 b f 0x8b		ESC [ 1 3 9 q
75	Shift	PFK 139 INS Toggle	75 s f 0x8b		ESC [ 1 3 9 q

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q	
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q	
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned	
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P	
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P	
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q	
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M	
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned	
77	Not available on keyboard								
78	Not available on keyboard								
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D	
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q	
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q	
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q	
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned	
80	Base	HOME		80	b	f	0x108	ESC [ H	
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q	
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q	
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q	
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned	
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q	
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q	
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q	
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q	
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned	
82	Not available on keyboard								
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A	
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q	
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q	
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q	
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
84	Base	CUD Cursor Down	84 b f 0x102	ESC [ B	
84	Shift	PFK 164	84 s f 0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK 165	84 c f 0xa5	ESC [ 1 6 5 q	
84	Alt	PFK 166	84 a f 0xa6	ESC [ 1 6 6 q	
84	AltGr	Ignore	84 g f 0x1ff	Not Returned	
85	Base	PFK 150	85 b f 0x96	ESC [ 1 5 0 q	
85	Shift	PFK 151	85 s f 0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK 152	85 c f 0x98	ESC [ 1 5 2 q	
85	Alt	PFK 153	85 a f 0x99	ESC [ 1 5 3 q	
85	AltGr	Ignore	85 g f 0x1ff	Not Returned	
86	Base	PFK 154	86 b f 0x9a	ESC [ 1 5 4 q	
86	Shift	PFK 155	86 s f 0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK 156	86 c f 0x9c	ESC [ 1 5 6 q	
86	Alt	PFK 157	86 a f 0x9d	ESC [ 1 5 7 q	
86	AltGr	Ignore	86 g f 0x1ff	Not Returned	
87	Not available on keyboard				
88	Not available on keyboard				
89	Base	CUF Cursor Forward	89 b f 0x103	ESC [ C	
89	Shift	PFK 167	89 s f 0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK 168	89 c f 0xa8	ESC [ 1 6 8 q	
89	Alt	PFK 169	89 a f 0xa9	ESC [ 1 6 9 q	
89	AltGr	Ignore	89 g f 0x1ff	Not Returned	
90	Base	NUM LOCK	None	Not Returned	
90	Shift	NUM LOCK	None	Not Returned	
90	Ctrl	DC3 Device Control 3	90 c c < 19	0x13	
90	Alt	PFK 170	90 a f 0xaa	ESC [ 1 7 0 q	
90	AltGr	Ignore	90 g f 0x1ff	Not Returned	
91	Base	Upper Left Corner	91 b c < 218	0xda	
91	Shift	Seven	91 s c < 55	0x37	
91	Ctrl	PFK 172	91 c f 0xac	ESC [ 1 7 2 q	
91	Alt	Alt + Num Entry	None	Return at Alt Break	
91	AltGr	Ignore	91 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
92	Base	┌	Left Edge Int.	92	b	c	< 195	0xc3	
92	Shift	4	Four	92	s	c	< 52	0x34	
92	Ctrl	PFK	174	92	c	f	0xae	ESC [ 1 7 4 q	
92	Alt		Alt + Num Entry	None				Return at Alt Break	
92	AltGr		Ignore	92	g	f	0x1ff	Not Returned	
93	Base	└	Lower Left Corner	93	b	c	< 192	0xc0	
93	Shift	1	One	93	s	c	< 49	0x31	
93	Ctrl	PFK	176	93	c	f	0xb0	ESC [ 1 7 6 q	
93	Alt		Alt + Num Entry	None				Return at Alt Break	
93	AltGr		Ignore	93	g	f	0x1ff	Not Returned	
94	Not available on keyboard								
95	Base	/	Slash	95	b	c	< 47	0x2f	
95	Shift	/	Slash	95	s	c	< 47	0x2f	
95	Ctrl	PFK	179	95	c	f	0xb3	ESC [ 1 7 9 q	
95	Alt	PFK	180	95	a	f	0xb4	ESC [ 1 8 0 q	
95	AltGr		Ignore	95	g	f	0x1ff	Not Returned	
96	Base	┐	Top Edge Int.	96	b	c	< 194	0xc2	
96	Shift	8	Eight	96	s	c	< 56	0x38	
96	Ctrl	PFK	182	96	c	f	0xb6	ESC [ 1 8 2 q	
96	Alt		Alt + Num Entry	None				Return at Alt Break	
96	AltGr		Ignore	96	g	f	0x1ff	Not Returned	
97	Base	+	Center Intersection	97	b	c	< 197	0xc5	
97	Shift	5	Five	97	s	c	< 53	0x35	
97	Ctrl	PFK	184	97	c	f	0xb8	ESC [ 1 8 4 q	
97	Alt		Alt + Num Entry	None				Return at Alt Break	
97	AltGr		Ignore	97	g	f	0x1ff	Not Returned	
98	Base	└	Bottom Intersection	98	b	c	< 193	0xc1	
98	Shift	2	Two	98	s	c	< 50	0x32	
98	Ctrl	PFK	186	98	c	f	0xba	ESC [ 1 8 6 q	
98	Alt		Alt + Num Entry	None				Return at Alt Break	
98	AltGr		Ignore	98	g	f	0x1ff	Not Returned	
99	Base		Vertical Bar	99	b	c	< 179	0xb3	
99	Shift	0	Zero	99	s	c	< 48	0x30	
99	Ctrl	PFK	178	99	c	f	0xb2	ESC [ 1 7 8 q	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
99	Alt	Alt+Num Entry	None		Return at Alt Break
99	AltGr	Ignore	99 g f 0x1ff		Not Returned
100	Base	* Asterisk	100 b c < 42	0x2a	
100	Shift	* Asterisk	100 s c < 42	0x2a	
100	Ctrl	PFK 187	100 c f 0xbb	ESC [ 1 8 7 q	
100	Alt	PFK 188	100 a f 0xbc	ESC [ 1 8 8 q	
100	AltGr	Ignore	100 g f 0x1ff		Not Returned
101	Base	7 Upper Right Corner	101 b c < 191	0xbf	
101	Shift	9 Nine	101 s c < 57	0x39	
101	Ctrl	PFK 190	101 c f 0xbe	ESC [ 1 9 0 q	
101	Alt	Alt+Num Entry	None		Return at Alt Break
101	AltGr	Ignore	101 g f 0x1ff		Not Returned
102	Base	4 Right Edge Int.	102 b c < 180	0xb4	
102	Shift	6 Six	102 s c < 54	0x36	
102	Ctrl	PFK 192	102 c f 0xc0	ESC [ 1 9 2 q	
102	Alt	Alt+Num Entry	None		Return at Alt Break
102	AltGr	Ignore	102 g f 0x1ff		Not Returned
103	Base	1 Lower Right Corner	103 b c < 217	0xd9	
103	Shift	3 Three	103 s c < 51	0x33	
103	Ctrl	PFK 194	103 c f 0xc2	ESC [ 1 9 4 q	
103	Alt	Alt+Num Entry	None		Return at Alt Break
103	AltGr	Ignore	103 g f 0x1ff		Not Returned
104	Base	- Horizontal Line	104 b c < 196	0xc4	
104	Shift	. Period	104 s c < 46	0x2e	
104	Ctrl	PFK 196	104 c f 0xc4	ESC [ 1 9 6 q	
104	Alt	PFK 197	104 a f 0xc5	ESC [ 1 9 7 q	
104	AltGr	Ignore	104 g f 0x1ff		Not Returned
105	Base	- Hyphen, Minus Sign	105 b c < 45	0x2d	
105	Shift	- Hyphen, Minus Sign	105 s c < 45	0x2d	
105	Ctrl	PFK 198	105 c f 0xc6	ESC [ 1 9 8 q	
105	Alt	PFK 199	105 a f 0xc7	ESC [ 1 9 9 q	
105	AltGr	Ignore	105 g f 0x1ff		Not Returned
106	Base	+ Plus Sign	106 b c < 43	0x2b	
106	Shift	+ Plus Sign	106 s c < 43	0x2b	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
108	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
115	Base	PFK 4	115 b f 0x04	ESC [ 0 0 4 q	
115	Shift	PFK 16	115 s f 0x10	ESC [ 0 1 6 q	
115	Ctrl	PFK 28	115 c f 0x1c	ESC [ 0 2 8 q	
115	Alt	PFK 40	115 a f 0x28	ESC [ 0 4 0 q	
115	AltGr	Ignore	115 g f 0x1ff	Not Returned	
116	Base	PFK 5	116 b f 0x05	ESC [ 0 0 5 q	
116	Shift	PFK 17	116 s f 0x11	ESC [ 0 1 7 q	
116	Ctrl	PFK 29	116 c f 0x1d	ESC [ 0 2 9 q	
116	Alt	PFK 41	116 a f 0x29	ESC [ 0 4 1 q	
116	AltGr	Ignore	116 g f 0x1ff	Not Returned	
117	Base	PFK 6	117 b f 0x06	ESC [ 0 0 6 q	
117	Shift	PFK 18	117 s f 0x12	ESC [ 0 1 8 q	
117	Ctrl	PFK 30	117 c f 0x1e	ESC [ 0 3 0 q	
117	Alt	PFK 42	117 a f 0x2a	ESC [ 0 4 2 q	
117	AltGr	Ignore	117 g f 0x1ff	Not Returned	
118	Base	PFK 7	118 b f 0x07	ESC [ 0 0 7 q	
118	Shift	PFK 19	118 s f 0x13	ESC [ 0 1 9 q	
118	Ctrl	PFK 31	118 c f 0x1f	ESC [ 0 3 1 q	
118	Alt	PFK 43	118 a f 0x2b	ESC [ 0 4 3 q	
118	AltGr	Ignore	118 g f 0x1ff	Not Returned	
119	Base	PFK 8	119 b f 0x08	ESC [ 0 0 8 q	
119	Shift	PFK 20	119 s f 0x14	ESC [ 0 2 0 q	
119	Ctrl	PFK 32	119 c f 0x20	ESC [ 0 3 2 q	
119	Alt	PFK 44	119 a f 0x2c	ESC [ 0 4 4 q	
119	AltGr	Ignore	119 g f 0x1ff	Not Returned	
120	Base	PFK 9	120 b f 0x09	ESC [ 0 0 9 q	
120	Shift	PFK 21	120 s f 0x15	ESC [ 0 2 1 q	
120	Ctrl	PFK 33	120 c f 0x21	ESC [ 0 3 3 q	
120	Alt	PFK 45	120 a f 0x2d	ESC [ 0 4 5 q	
120	AltGr	Ignore	120 g f 0x1ff	Not Returned	
121	Base	PFK 10	121 b f 0x0a	ESC [ 0 1 0 q	
121	Shift	PFK 22	121 s f 0x16	ESC [ 0 2 2 q	
121	Ctrl	PFK 34	121 c f 0x22	ESC [ 0 3 4 q	
121	Alt	PFK 46	121 a f 0x2e	ESC [ 0 4 6 q	
121	AltGr	Ignore	121 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nmn	s	t	-----		
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q	
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q	
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q	
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q	
122	AltGr	Ignore		122	g	f	0x1ff	Not Returned	
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q	
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q	
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q	
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q	
123	AltGr	Ignore		123	g	f	0x1ff	Not Returned	
124	Base	PFK	209	124	b	f	0xd1	ESC [ 2 0 9 q	
124	Shift	PFK	210	124	s	f	0xd2	ESC [ 2 1 0 q	
124	Ctrl	PFK	211	124	c	f	0xd3	ESC [ 2 1 1 q	
124	Alt	PFK	212	124	a	f	0xd4	ESC [ 2 1 2 q	
124	AltGr	Ignore		124	g	f	0x1ff	Not Returned	
125	Base	PFK	213	125	b	f	0xd5	ESC [ 2 1 3 q	
125	Shift	PFK	214	125	s	f	0xd6	ESC [ 2 1 4 q	
125	Ctrl	PFK	215	125	c	f	0xd7	ESC [ 2 1 5 q	
125	Alt	PFK	216	125	a	f	0xd8	ESC [ 2 1 6 q	
125	AltGr	Ignore		125	g	f	0x1ff	Not Returned	
126	Base	PFK	217	126	b	f	0xd9	ESC [ 2 1 7 q	
126	Shift	PFK	218	126	s	f	0xda	ESC [ 2 1 8 q	
126	Ctrl	DEL		126	c	c	< 127	0x7f	
126	Alt	DEL		126	a	c	< 127	0x7f	
126	AltGr	Ignore		126	g	f	0x1ff	Not Returned	

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## Appendix N. Spanish Keyboard Layout and Table

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This appendix contains the keyboard layout and keyboard table information for the Spanish keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

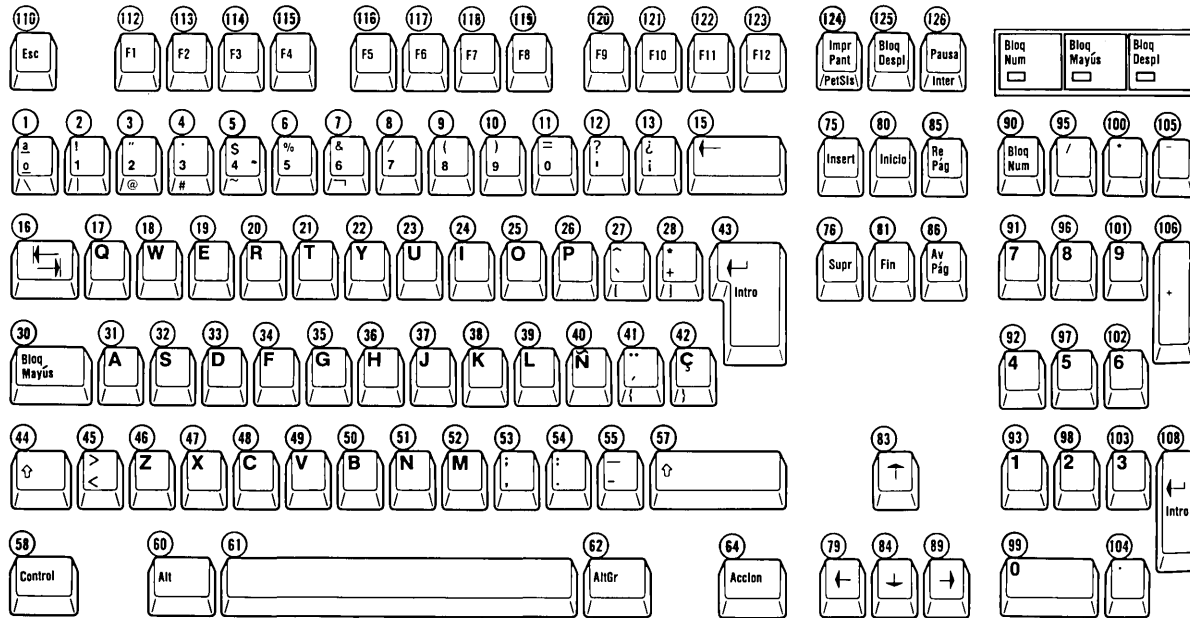
**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the **Alt** key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.

# Spanish Keyboard Layout



## Spanish Keyboard Table

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
1	Base	o	Masculine Sign	1 b c < 167	0xa7
1	Shift	a	Feminine Sign	1 s c < 166	0xa6
1	Ctrl	SS4	Single Shift 4	1 c c < 28	0x1c
1	Alt	PFK 86		1 a f 0x86	ESC [ 0 8 6 q
1	AltGr	\	Reverse Slash	1 g c < 92	0x5c
2	Base	1	One	2 b c < 49	0x31
2	Shift	!	Exclamation Point	2 s c < 33	0x21
2	Ctrl	PFK 49		2 c f 0x31	ESC [ 0 4 9 q
2	Alt	PFK 58		2 a f 0x3a	ESC [ 0 5 8 q
2	AltGr		Pipe Symbol	2 g c < 124	0x7c
3	Base	2	Two	3 b c < 50	0x32
3	Shift	"	Double Quote	3 s c < 34	0x22
3	Ctrl	NUL	Null	3 c c < 0	0x00
3	Alt	PFK 59		3 a f 0x3b	ESC [ 0 5 9 q
3	AltGr	@	At Sign	3 g c < 64	0x40
4	Base	3	Three	4 b c < 51	0x33
4	Shift	.	Product Dot	4 s c < 250	0xfa
4	Ctrl	PFK 50		4 c f 0x32	ESC [ 0 5 0 q
4	Alt	PFK 60		4 a f 0x3c	ESC [ 0 6 0 q
4	AltGr	#	Number Sign	4 g c < 35	0x23
5	Base	4	Four	5 b c < 52	0x34
5	Shift	\$	Dollar Sign	5 s c < 36	0x24
5	Ctrl	PFK 51		5 c f 0x33	ESC [ 0 5 1 q
5	Alt	PFK 61		5 a f 0x3d	ESC [ 0 6 1 q
5	AltGr	~	Tilde Accent	5 g c < 126	0x7e
6	Base	5	Five	6 b c < 53	0x35
6	Shift	%	Percent Sign	6 s c < 37	0x25
6	Ctrl	PFK 52		6 c f 0x34	ESC [ 0 5 2 q
6	Alt	PFK 62		6 a f 0x3e	ESC [ 0 6 2 q
6	AltGr	Ignore		6 g f 0x1ff	Not Returned



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
7	Base	6	Six	7	b	c	< 54	0x36	
7	Shift	&	Ampersand	7	s	c	< 38	0x26	
7	Ctrl	SS2	Single Shift 2	7	c	c	< 30	0x1e	
7	Alt	PFK	63	7	a	f	0x3f	ESC [ 0 6 3 q	
7	AltGr	⌘	NOT Sign	7	g	c	< 170	0xaa	
8	Base	7	Seven	8	b	c	< 55	0x37	
8	Shift	/	Slash	8	s	c	< 47	0x2f	
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
8	AltGr	Ignore		8	g	f	0x1ff	Not Returned	
9	Base	8	Eight	9	b	c	< 56	0x38	
9	Shift	(	Left Parenthesis	9	s	c	< 40	0x28	
9	Ctrl	PFK	54	9	c	f	0x36	ESC [ 0 5 4 q	
9	Alt	PFK	65	9	a	f	0x41	ESC [ 0 6 5 q	
9	AltGr	Ignore		9	g	f	0x1ff	Not Returned	
10	Base	9	Nine	10	b	c	< 57	0x39	
10	Shift	)	Right Parenthesis	10	s	c	< 41	0x29	
10	Ctrl	PFK	55	10	c	f	0x37	ESC [ 0 5 5 q	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
10	AltGr	Ignore		10	g	f	0x1ff	Not Returned	
11	Base	0	Zero	11	b	c	< 48	0x30	
11	Shift	=	Equal Sign	11	s	c	< 61	0x3d	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
11	AltGr	Ignore		11	g	f	0x1ff	Not Returned	
12	Base	'	Quote, Apostrophe	12	b	c	< 39	0x27	
12	Shift	?	Question Mark	12	s	c	< 63	0x3f	
12	Ctrl	PFK	112	12	c	f	0x70	ESC [ 1 1 2 q	
12	Alt	PFK	113	12	a	f	0x71	ESC [ 1 1 3 q	
12	AltGr	Ignore		12	g	f	0x1ff	Not Returned	
13	Base	¡	Inverted !	13	b	c	< 173	0xad	
13	Shift	¿	Inverted ?	13	s	c	< 168	0xa8	
13	Ctrl	PFK	69	13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK	70	13	a	f	0x46	ESC [ 0 7 0 q	
13	AltGr	Ignore		13	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
14		Not available on keyboard			
15	Base	BS Back Space	15 b c < 8	0x08	
15	Shift	BS Back Space	15 s c < 8	0x08	
15	Ctrl	DEL Delete	15 c c < 127	0x7f	
15	Alt	PFK 71	15 a f 0x47	ESC [ 0 7 1 q	
15	AltGr	Ignore	15 g f 0x1ff	Not Returned	
16	Base	HT Horizontal Tab	16 b c < 9	0x09	
16	Shift	CBT Cursor Back Tab	16 s f 0x105	ESC [ Z	
16	Ctrl	PFK 72	16 c f 0x48	ESC [ 0 7 2 q	
16	Alt	PFK 73	16 a f 0x49	ESC [ 0 7 3 q	
16	AltGr	Ignore	16 g f 0x1ff	Not Returned	
17	Base	q Lowercase q	17 b c < 113	0x71	CL
17	Shift	Q Uppercase q	17 s c < 81	0x51	
17	Ctrl	DC1 Device Control 1	17 c c < 17	0x11	
17	Alt	PFK 74	17 a f 0x4a	ESC [ 0 7 4 q	
17	AltGr	Ignore	17 g f 0x1ff	Not Returned	
18	Base	w Lowercase w	18 b c < 119	0x77	CL
18	Shift	W Uppercase w	18 s c < 87	0x57	
18	Ctrl	ETB End Trans Block	18 c c < 23	0x17	
18	Alt	PFK 75	18 a f 0x4b	ESC [ 0 7 5 q	
18	AltGr	Ignore	18 g f 0x1ff	Not Returned	
19	Base	e Lowercase e	19 b c < 101	0x65	CL
19	Shift	E Uppercase e	19 s c < 69	0x45	
19	Ctrl	ENQ Enquiry	19 c c < 5	0x05	
19	Alt	PFK 76	19 a f 0x4c	ESC [ 0 7 6 q	
19	AltGr	Ignore	19 g f 0x1ff	Not Returned	
20	Base	r Lowercase r	20 b c < 114	0x72	CL
20	Shift	R Uppercase r	20 s c < 82	0x52	
20	Ctrl	DC2 Device Control 2	20 c c < 18	0x12	
20	Alt	PFK 77	20 a f 0x4d	ESC [ 0 7 7 q	
20	AltGr	Ignore	20 g f 0x1ff	Not Returned	
21	Base	t Lowercase t	21 b c < 116	0x74	CL
21	Shift	T Uppercase t	21 s c < 84	0x54	
21	Ctrl	DC4 Device Control 4	21 c c < 20	0x14	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes	
				nnn	s	t			-----
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore		21	g	f	0x1ff	Not Returned	
22	Base	y	Lowercase y	22	b	c	< 121	0x79	CL
22	Shift	Y	Uppercase y	22	s	c	< 89	0x59	
22	Ctrl	EM	End of Media	22	c	c	< 25	0x19	
22	Alt	PFK	79	22	a	f	0x4f	ESC [ 0 7 9 q	
22	AltGr	Ignore		22	g	f	0x1ff	Not Returned	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore		23	g	f	0x1ff	Not Returned	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore		24	g	f	0x1ff	Not Returned	
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
25	AltGr	Ignore		25	g	f	0x1ff	Not Returned	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
26	AltGr	Ignore		26	g	f	0x1ff	Not Returned	
27	Base	`	Grave Accent	27	b	d	< 96	0x60	DK DK
27	Shift	^	Circumflex Accent	27	s	d	< 94	0x5e	
27	Ctrl	ESC	Escape	27	c	c	< 27	0x1b	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
27	AltGr	[	Left Bracket	27	g	c	< 91	0x5b	
28	Base	+	Plus Sign	28	b	c	< 43	0x2b	
28	Shift	*	Asterisk	28	s	c	< 42	0x2a	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
28	Ctrl	SS3	Single Shift 3	28	c	c	< 29	0x1d	
28	Alt	PFK	85	28	a	f	0x55	ESC [ 0 8 5 q	
28	AltGr	]	Right Bracket	28	g	c	< 93	0x5d	
29	Not available on keyboard								
30	Base	Caps Lock		None				Not Returned	
30	Shift	Caps Lock		None				Not Returned	
30	Ctrl	Caps Lock		None				Not Returned	
30	Alt	Caps Lock		None				Not Returned	
30	AltGr	Caps Lock		None				Not Returned	
31	Base	a	Lowercase a	31	b	c	< 97	0x61	CL
31	Shift	A	Uppercase a	31	s	c	< 65	0x41	
31	Ctrl	SOH	Start of Header	31	c	c	< 1	0x01	
31	Alt	PFK	87	31	a	f	0x57	ESC [ 0 8 7 q	
31	AltGr	Ignore		31	g	f	0x1ff	Not Returned	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK	88	32	a	f	0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore		32	g	f	0x1ff	Not Returned	
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK	89	33	a	f	0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore		33	g	f	0x1ff	Not Returned	
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK	90	34	a	f	0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore		34	g	f	0x1ff	Not Returned	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore		35	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK 92		36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK 93		37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK 94		38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK 95		39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	ñ	n Tilde Small	40	b	c	< 164	0xa4	CL
40	Shift	Ñ	n Tilde Capital	40	s	c	< 165	0xa5	
40	Ctrl	PFK 96		40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK 97		40	a	f	0x61	ESC [ 0 9 7 q	
40	AltGr	Ignore		40	g	f	0x1ff	Not Returned	
41	Base	'	Acute Accent	41	b	d	< 239	0xef	DK
41	Shift	¨	Diaeresis Accent	41	s	d	< 249	0xf9	DK
41	Ctrl	PFK 98		41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK 99		41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	{	Left Brace	41	g	c	< 123	0x7b	
42	Base	ç	c Cedilla Small	42	b	c	< 135	0x87	CL
42	Shift	Ç	c Cedilla Capital	42	s	c	< 128	0x80	
42	Ctrl	PFK 57		42	c	f	0x39	ESC [ 0 5 7 q	
42	Alt	PFK 115		42	a	f	0x73	ESC [ 1 1 5 q	
42	AltGr	}	Right Brace	42	g	c	< 125	0x7d	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK	100	43	a	f	0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore		43	g	f	0x1ff	Not Returned	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
44	AltGr	Shift (Left)		None				Not Returned	
45	Base	<	Less Than Sign	45	b	c	< 60	0x3c	
45	Shift	>	Greater Than Sign	45	s	c	< 62	0x3e	
45	Ctrl	Ignore		45	c	f	0x1ff	Not Returned	
45	Alt	Ignore		45	a	f	0x1ff	Not Returned	
45	AltGr	Ignore		45	g	f	0x1ff	Not Returned	
46	Base	z	Lowercase z	46	b	c	< 122	0x7a	CL
46	Shift	Z	Uppercase z	46	s	c	< 90	0x5a	
46	Ctrl	SUB	Substitute Char.	46	c	c	< 26	0x1a	
46	Alt	PFK	101	46	a	f	0x65	ESC [ 1 0 1 q	
46	AltGr	Ignore		46	g	f	0x1ff	Not Returned	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK	102	47	a	f	0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore		47	g	f	0x1ff	Not Returned	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of Text	48	c	c	< 3	0x03	
48	Alt	PFK	103	48	a	f	0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore		48	g	f	0x1ff	Not Returned	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK	104	49	a	f	0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore		49	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK 105		50	a	f	0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore		50	g	f	0x1ff	Not Returned	
51	Base	h	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK 106		51	a	f	0x65	ESC [ 1 0 6 q	
51	AltGr	Ignore		51	g	f	0x1ff	Not Returned	
52	Base	m	Lowercase m	52	b	c	< 109	0x6d	CL
52	Shift	M	Uppercase m	52	s	c	< 77	0x4d	
52	Ctrl	CR	Carriage Return	52	c	c	< 13	0x0d	
52	Alt	PFK 107		52	a	f	0x66	ESC [ 1 0 7 q	
52	AltGr	Ignore		52	g	f	0x1ff	Not Returned	
53	Base	,	Comma	53	b	c	< 44	0x2c	
53	Shift	;	Semicolon	53	s	c	< 59	0x3b	
53	Ctrl	PFK 108		53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK 109		53	a	f	0x6d	ESC [ 1 0 9 q	
53	AltGr	Ignore		53	g	f	0x1ff	Not Returned	
54	Base	.	Period	54	b	c	< 46	0x2e	
54	Shift	:	Colon	54	s	c	< 58	0x3a	
54	Ctrl	PFK 110		54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK 111		54	a	f	0x6f	ESC [ 1 1 1 q	
54	AltGr	Ignore		54	g	f	0x1ff	Not Returned	
55	Base	-	Hyphen, Minus Sign	55	b	c	< 45	0x2d	
55	Shift	_	Underscore	55	s	c	< 95	0x5f	
55	Ctrl	SS1	Single Shift 1	55	c	c	< 31	0x1f	
55	Alt	PFK 68		55	a	f	0x44	ESC [ 0 6 8 q	
55	AltGr	Ignore		55	g	f	0x1ff	Not Returned	
56	Not available on keyboard								
57	Base	Shift (Right)		None				Not Returned	
57	Shift	Shift (Right)		None				Not Returned	
57	Ctrl	Shift (Right)		None				Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition n n n s t -----	Returned String	Notes
57	Alt	Shift (Right)	None		Reserved for IBM 5080
57	AltGr	Shift (Right)	None		Not Returned
58	Base	Control	None		Not Returned
58	Shift	Control	None		Not Returned
58	Ctrl	Control	None		Not Returned
58	Alt	Control	None		Not Returned
58	AltGr	Control	None		Not Returned
59	Not available on keyboard				
60	Base	Alternate Shift	None		Not Returned
60	Shift	Alternate Shift	None		Not Returned
60	Ctrl	Alternate Shift	None		Not Returned
60	Alt	Alternate Shift	None		Not Returned
60	AltGr	Alternate Shift	None		Not Returned
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff		Not Returned
62	Base	Alternate Graphic Shift	None		Not Returned
62	Shift	Alternate Graphic Shift	None		Not Returned
62	Ctrl	Alternate Graphic Shift	None		Not Returned
62	Alt	Alternate Graphic Shift	None		Not Returned
62	AltGr	Alternate Graphic Shift	None		Not Returned
63	Not available on keyboard				
64	Base	PFK 114	64 b f 0x72		ESC [ 1 1 4 q
64	Shift	VTRM Previous Window	None		VTRM Previous Window
64	Ctrl	VTRM Windows Window	None		VTRM Windows Window
64	Alt	VTRM Next Window	None		VTRM Next Window
64	AltGr	VTRM Next Window	None		VTRM Next Window
65 - 74	Not available on keyboard				
75	Base	PFK 139 INS Toggle	75 b f 0x8b		ESC [ 1 3 9 q
75	Shift	PFK 139 INS Toggle	75 s f 0x8b		ESC [ 1 3 9 q



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q	
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q	
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned	
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P	
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P	
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q	
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M	
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned	
77	Not available on keyboard								
78	Not available on keyboard								
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D	
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q	
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q	
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q	
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned	
80	Base	HOME		80	b	f	0x108	ESC [ H	
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q	
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q	
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q	
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned	
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q	
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q	
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q	
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q	
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned	
82	Not available on keyboard								
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A	
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q	
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q	
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q	
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
84	Base	CUD Cursor Down	84 b f 0x102	ESC [ B	
84	Shift	PFK 164	84 s f 0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK 165	84 c f 0xa5	ESC [ 1 6 5 q	
84	Alt	PFK 166	84 a f 0xa6	ESC [ 1 6 6 q	
84	AltGr	Ignore	84 g f 0x1ff	Not Returned	
85	Base	PFK 150	85 b f 0x96	ESC [ 1 5 0 q	
85	Shift	PFK 151	85 s f 0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK 152	85 c f 0x98	ESC [ 1 5 2 q	
85	Alt	PFK 153	85 a f 0x99	ESC [ 1 5 3 q	
85	AltGr	Ignore	85 g f 0x1ff	Not Returned	
86	Base	PFK 154	86 b f 0x9a	ESC [ 1 5 4 q	
86	Shift	PFK 155	86 s f 0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK 156	86 c f 0x9c	ESC [ 1 5 6 q	
86	Alt	PFK 157	86 a f 0x9d	ESC [ 1 5 7 q	
86	AltGr	Ignore	86 g f 0x1ff	Not Returned	
87	Not available on keyboard				
88	Not available on keyboard				
89	Base	CUF Cursor Forward	89 b f 0x103	ESC [ C	
89	Shift	PFK 167	89 s f 0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK 168	89 c f 0xa8	ESC [ 1 6 8 q	
89	Alt	PFK 169	89 a f 0xa9	ESC [ 1 6 9 q	
89	AltGr	Ignore	89 g f 0x1ff	Not Returned	
90	Base	NUM LOCK	None	Not Returned	
90	Shift	NUM LOCK	None	Not Returned	
90	Ctrl	DC3 Device Control 3	90 c c < 19	0x13	
90	Alt	PFK 170	90 a f 0xaa	ESC [ 1 7 0 q	
90	AltGr	Ignore	90 g f 0x1ff	Not Returned	
91	Base	⌞ Upper Left Corner	91 b c < 218	0xda	
91	Shift	7 Seven	91 s c < 55	0x37	
91	Ctrl	PFK 172	91 c f 0xac	ESC [ 1 7 2 q	
91	Alt	Alt+Num Entry	None	Return at Alt Break	
91	AltGr	Ignore	91 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
92	Base	┌ Left Edge Int.	92	b	c	< 195	0xc3	
92	Shift	4 Four	92	s	c	< 52	0x34	
92	Ctrl	PFK 174	92	c	f	0xae	ESC [ 1 7 4 q	
92	Alt	Alt + Num Entry	None				Return at Alt Break	
92	AltGr	Ignore	92	g	f	0x1ff	Not Returned	
93	Base	└ Lower Left Corner	93	b	c	< 192	0xc0	
93	Shift	1 One	93	s	c	< 49	0x31	
93	Ctrl	PFK 176	93	c	f	0xb0	ESC [ 1 7 6 q	
93	Alt	Alt + Num Entry	None				Return at Alt Break	
93	AltGr	Ignore	93	g	f	0x1ff	Not Returned	
94	Not available on keyboard							
95	Base	/ Slash	95	b	c	< 47	0x2f	
95	Shift	/ Slash	95	s	c	< 47	0x2f	
95	Ctrl	PFK 179	95	c	f	0xb3	ESC [ 1 7 9 q	
95	Alt	PFK 180	95	a	f	0xb4	ESC [ 1 8 0 q	
95	AltGr	Ignore	95	g	f	0x1ff	Not Returned	
96	Base	┐ Top Intersection	96	b	c	< 194	0xc2	
96	Shift	8 Eight	96	s	c	< 56	0x38	
96	Ctrl	PFK 182	96	c	f	0xb6	ESC [ 1 8 2 q	
96	Alt	Alt + Num Entry	None				Return at Alt break	
96	AltGr	Ignore	96	g	f	0x1ff	Not Returned	
97	Base	┼ Center Intersection	97	b	c	< 197	0xc5	
97	Shift	5 Five	97	s	c	< 53	0x35	
97	Ctrl	PFK 184	97	c	f	0xb8	ESC [ 1 8 4 q	
97	Alt	Alt + Num Entry	None				Return at Alt break	
97	AltGr	Ignore	97	g	f	0x1ff	Not Returned	
98	Base	└ Bottom Junction	98	b	c	< 193	0xc1	
98	Shift	2 Two	98	s	c	< 50	0x32	
98	Ctrl	PFK 186	98	c	f	0xba	ESC [ 1 8 6 q	
98	Alt	Alt + Num Entry	None				Return at Alt break	
98	AltGr	Ignore	98	g	f	0x1ff	Not Returned	
99	Base	Vertical Bar	99	b	c	< 179	0xb3	
99	Shift	0 Zero	99	s	c	< 48	0x30	
99	Ctrl	PFK 178	99	c	f	0xb2	ESC [ 1 7 8 q	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
99	Alt	Alt + Num Entry	None		Return at Alt break
99	AltGr	Ignore	99 g f	0x1ff	Not Returned
100	Base	* Asterisk	100 b c	< 42	0x2a
100	Shift	* Asterisk	100 s c	< 42	0x2a
100	Ctrl	PFK 187	100 c f	0xbb	ESC [ 1 8 7 q
100	Alt	PFK 188	100 a f	0xbc	ESC [ 1 8 8 q
100	AltGr	Ignore	100 g f	0x1ff	Not Returned
101	Base	7 Upper Right Corner	101 b c	< 191	0xbf
101	Shift	9 Nine	101 s c	< 57	0x39
101	Ctrl	PFK 190	101 c f	0xbe	ESC [ 1 9 0 q
101	Alt	Alt + Num Entry	None		Return at Alt break
101	AltGr	Ignore	101 g f	0x1ff	Not Returned
102	Base	4 Right Edge Int.	102 b c	< 180	0xb4
102	Shift	6 Six	102 s c	< 54	0x36
102	Ctrl	PFK 192	102 c f	0xc0	ESC [ 1 9 2 q
102	Alt	Alt + Num Entry	None		Return at Alt break
102	AltGr	Ignore	102 g f	0x1ff	Not Returned
103	Base	1 Lower Right Corner	103 b c	< 217	0xd9
103	Shift	3 Three	103 s c	< 51	0x33
103	Ctrl	PFK 194	103 c f	0xc2	ESC [ 1 9 4 q
103	Alt	Alt + Num Entry	None		Return at Alt break
103	AltGr	Ignore	103 g f	0x1ff	Not Returned
104	Base	- Horizontal Line	104 b c	< 196	0xc4
104	Shift	. Period	104 s c	< 46	0x2e
104	Ctrl	PFK 196	104 c f	0xc4	ESC [ 1 9 6 q
104	Alt	PFK 197	104 a f	0xc5	ESC [ 1 9 7 q
104	AltGr	Ignore	104 g f	0x1ff	Not Returned
105	Base	- Hyphen, Minus Sign	105 b c	< 45	0x2d
105	Shift	- Hyphen, Minus Sign	105 s c	< 45	0x2d
105	Ctrl	PFK 198	105 c f	0xc6	ESC [ 1 9 8 q
105	Alt	PFK 199	105 a f	0xc7	ESC [ 1 9 9 q
105	AltGr	Ignore	105 g f	0x1ff	Not Returned
106	Base	+ Plus Sign	106 b c	< 43	0x2b
106	Shift	+ Plus Sign	106 s c	< 43	0x2b

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
108	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
115	Base	PFK	4	115	b	f	0x04	ESC [ 0 0 4 q	
115	Shift	PFK	16	115	s	f	0x10	ESC [ 0 1 6 q	
115	Ctrl	PFK	28	115	c	f	0x1c	ESC [ 0 2 8 q	
115	Alt	PFK	40	115	a	f	0x28	ESC [ 0 4 0 q	
115	AltGr	Ignore		115	g	f	0x1ff	Not Returned	
116	Base	PFK	5	116	b	f	0x05	ESC [ 0 0 5 q	
116	Shift	PFK	17	116	s	f	0x11	ESC [ 0 1 7 q	
116	Ctrl	PFK	29	116	c	f	0x1d	ESC [ 0 2 9 q	
116	Alt	PFK	41	116	a	f	0x29	ESC [ 0 4 1 q	
116	AltGr	Ignore		116	g	f	0x1ff	Not Returned	
117	Base	PFK	6	117	b	f	0x06	ESC [ 0 0 6 q	
117	Shift	PFK	18	117	s	f	0x12	ESC [ 0 1 8 q	
117	Ctrl	PFK	30	117	c	f	0x1e	ESC [ 0 3 0 q	
117	Alt	PFK	42	117	a	f	0x2a	ESC [ 0 4 2 q	
117	AltGr	Ignore		117	g	f	0x1ff	Not Returned	
118	Base	PFK	7	118	b	f	0x07	ESC [ 0 0 7 q	
118	Shift	PFK	19	118	s	f	0x13	ESC [ 0 1 9 q	
118	Ctrl	PFK	31	118	c	f	0x1f	ESC [ 0 3 1 q	
118	Alt	PFK	43	118	a	f	0x2b	ESC [ 0 4 3 q	
118	AltGr	Ignore		118	g	f	0x1ff	Not Returned	
119	Base	PFK	8	119	b	f	0x08	ESC [ 0 0 8 q	
119	Shift	PFK	20	119	s	f	0x14	ESC [ 0 2 0 q	
119	Ctrl	PFK	32	119	c	f	0x20	ESC [ 0 3 2 q	
119	Alt	PFK	44	119	a	f	0x2c	ESC [ 0 4 4 q	
119	AltGr	Ignore		119	g	f	0x1ff	Not Returned	
120	Base	PFK	9	120	b	f	0x09	ESC [ 0 0 9 q	
120	Shift	PFK	21	120	s	f	0x15	ESC [ 0 2 1 q	
120	Ctrl	PFK	33	120	c	f	0x21	ESC [ 0 3 3 q	
120	Alt	PFK	45	120	a	f	0x2d	ESC [ 0 4 5 q	
120	AltGr	Ignore		120	g	f	0x1ff	Not Returned	
121	Base	PFK	10	121	b	f	0x0a	ESC [ 0 1 0 q	
121	Shift	PFK	22	121	s	f	0x16	ESC [ 0 2 2 q	
121	Ctrl	PFK	34	121	c	f	0x22	ESC [ 0 3 4 q	
121	Alt	PFK	46	121	a	f	0x2e	ESC [ 0 4 6 q	
121	AltGr	Ignore		121	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q	
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q	
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q	
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q	
122	AltGr	Ignore		122	g	f	0x1ff	Not Returned	
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q	
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q	
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q	
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q	
123	AltGr	Ignore		123	g	f	0x1ff	Not Returned	
124	Base	PFK	209	124	b	f	0xd1	ESC [ 2 0 9 q	
124	Shift	PFK	210	124	s	f	0xd2	ESC [ 2 1 0 q	
124	Ctrl	PFK	211	124	c	f	0xd3	ESC [ 2 1 1 q	
124	Alt	PFK	212	124	a	f	0xd4	ESC [ 2 1 2 q	
124	AltGr	Ignore		124	g	f	0x1ff	Not Returned	
125	Base	PFK	213	125	b	f	0xd5	ESC [ 2 1 3 q	
125	Shift	PFK	214	125	s	f	0xd6	ESC [ 2 1 4 q	
125	Ctrl	PFK	215	125	c	f	0xd7	ESC [ 2 1 5 q	
125	Alt	PFK	216	125	a	f	0xd8	ESC [ 2 1 6 q	
125	AltGr	Ignore		125	g	f	0x1ff	Not Returned	
126	Base	PFK	217	126	b	f	0xd9	ESC [ 2 1 7 q	
126	Shift	PFK	218	126	s	f	0xda	ESC [ 2 1 8 q	
126	Ctrl	DEL		126	c	c	< 127	0x7f	
126	Alt	DEL		126	a	c	< 127	0x7f	
126	AltGr	Ignore		126	g	f	0x1ff	Not Returned	

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# Appendix O. Swiss Keyboard Layout with French Table



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This appendix contains the keyboard layout and keyboard table information for the Swiss/French keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

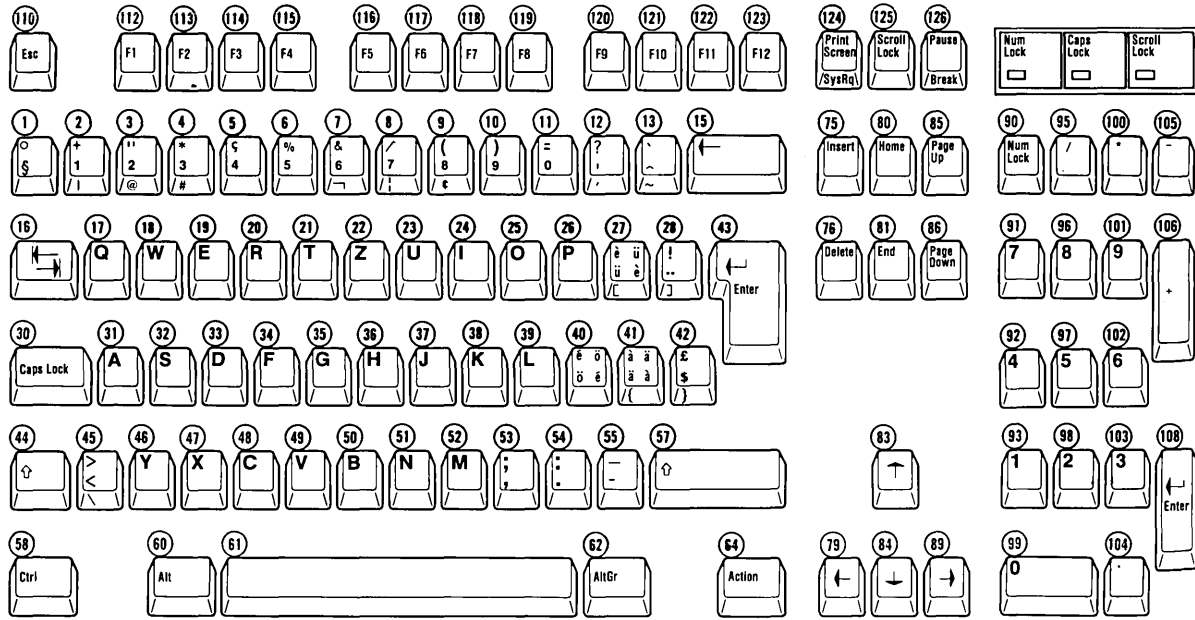
**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the **Alt** key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.

# Swiss/French Keyboard Layout



## Swiss/French Keyboard Table

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
1	Base	§ Section Symbol	1 b c < 245	0xf5	
1	Shift	° Degree Symbol	1 s c < 248	0xf8	
1	Ctrl	PFK 57	1 c f 0x39	ESC [ 0 5 7 q	
1	Alt	PFK 115	1 a f 0x73	ESC [ 1 1 5 q	
1	AltGr	Ignore	1 g f 0x1ff	Not Returned	
2	Base	1 One	2 b c < 49	0x31	
2	Shift	+ Plus Sign	2 s c < 43	0x2b	
2	Ctrl	PFK 49	2 c f 0x31	ESC [ 0 4 9 q	
2	Alt	PFK 58	2 a f 0x3a	ESC [ 0 5 8 q	
2	AltGr	Logical OR	2 g c < 224	0x7c	
3	Base	2 Two	3 b c < 50	0x32	
3	Shift	" Double Quote	3 s c < 34	0x22	
3	Ctrl	NUL Null	3 c c < 0	0x00	
3	Alt	PFK 59	3 a f 0x3b	ESC [ 0 5 9 q	
3	AltGr	@ At Sign	3 g c < 64	0x40	
4	Base	3 Three	4 b c < 51	0x33	
4	Shift	* Asterisk	4 s c < 42	0x2a	
4	Ctrl	PFK 50	4 c f 0x32	ESC [ 0 5 0 q	
4	Alt	PFK 60	4 a f 0x3c	ESC [ 0 6 0 q	
4	AltGr	# Number Sign	4 g c < 35	0x23	
5	Base	4 Four	5 b c < 52	0x34	
5	Shift	ç c Cedilla Small	5 s c < 135	0x87	
5	Ctrl	PFK 51	5 c f 0x33	ESC [ 0 5 1 q	
5	Alt	PFK 61	5 a f 0x3d	ESC [ 0 6 1 q	
5	AltGr	Ignore	5 g f 0x1ff	Not Returned	
6	Base	5 Five	6 b c < 53	0x35	
6	Shift	% Percent Sign	6 s c < 37	0x25	
6	Ctrl	PFK 52	6 c f 0x34	ESC [ 0 5 2 q	
6	Alt	PFK 62	6 a f 0x3e	ESC [ 0 6 2 q	
6	AltGr	Ignore	6 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
7	Base	6	Six	7	b	c	< 54	0x36	
7	Shift	&	Ampersand	7	s	c	< 38	0x26	
7	Ctrl	SS2	Single Shift 2	7	c	c	< 30	0x1e	
7	Alt	PFK	63	7	a	f	0x3f	ESC [ 0 6 3 q	
7	AltGr	¬	NOT Sign	7	g	c	< 170	0xaa	
8	Base	7	Seven	8	b	c	< 55	0x37	
8	Shift	/	Slash	8	s	c	< 47	0x2f	
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
8	AltGr	¡	Broken Vertical Bar	8	g	c	< 221	0xdd	
9	Base	8	Eight	9	b	c	< 56	0x38	
9	Shift	(	Left Parenthesis	9	s	c	< 40	0x28	
9	Ctrl	PFK	54	9	c	f	0x36	ESC [ 0 5 4 q	
9	Alt	PFK	65	9	a	f	0x41	ESC [ 0 6 5 q	
9	AltGr	¢	Cent Sign	9	g	c	< 189	0xbd	
10	Base	9	Nine	10	b	c	< 57	0x39	
10	Shift	)	Right Parenthesis	10	s	c	< 41	0x29	
10	Ctrl	PFK	55	10	c	f	0x37	ESC [ 0 5 5 q	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
10	AltGr	Ignore		10	g	f	0x1ff	Not Returned	
11	Base	0	Zero	11	b	c	< 48	0x30	
11	Shift	=	Equal Sign	11	s	c	< 61	0x3d	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
11	AltGr	Ignore		11	g	f	0x1ff	Not Returned	
12	Base	'	Quote/Apostrophe	12	b	c	< 39	0x27	
12	Shift	?	Question Mark	12	s	c	< 63	0x3f	
12	Ctrl	PFK	112	12	c	f	0x70	ESC [ 1 1 2 q	
12	Alt	PFK	113	12	a	f	0x71	ESC [ 1 1 3 q	
12	AltGr	'	Acute Accent	12	g	d	< 239	0xef	DK
13	Base	^	Circumflex Accent	13	b	d	< 94	0x5e	DK
13	Shift	`	Grave Accent	13	s	d	< 96	0x60	DK
13	Ctrl	PFK	69	13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK	70	13	a	f	0x46	ESC [ 0 7 0 q	
13	AltGr	~	Tilde Accent	13	g	d	< 126	0x7e	DK

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
14		Not available on keyboard							
15	Base	BS	Back Space	15	b	c	< 8	0x08	
15	Shift	BS	Back Space	15	s	c	< 8	0x08	
15	Ctrl	DEL	Delete	15	c	c	< 127	0x7f	
15	Alt	PFK	71	15	a	f	0x47	ESC [ 0 7 1 q	
15	AltGr	Ignore		15	g	f	0x1ff	Not Returned	
16	Base	HT	Horizontal Tab	16	b	c	< 9	0x09	
16	Shift	CBT	Cursor Back Tab	16	s	f	0x105	ESC [ Z	
16	Ctrl	PFK	72	16	c	f	0x48	ESC [ 0 7 2 q	
16	Alt	PFK	73	16	a	f	0x49	ESC [ 0 7 3 q	
16	AltGr	Ignore		16	g	f	0x1ff	Not Returned	
17	Base	q	Lowercase q	17	b	c	< 113	0x71	CL
17	Shift	Q	Uppercase q	17	s	c	< 81	0x51	
17	Ctrl	DC1	Device Control 1	17	c	c	< 17	0x11	
17	Alt	PFK	74	17	a	f	0x4a	ESC [ 0 7 4 q	
17	AltGr	Ignore		17	g	f	0x1ff	Not Returned	
18	Base	w	Lowercase w	18	b	c	< 119	0x77	CL
18	Shift	W	Uppercase w	18	s	c	< 87	0x57	
18	Ctrl	ETB	End Trans Block	18	c	c	< 23	0x17	
18	Alt	PFK	75	18	a	f	0x4b	ESC [ 0 7 5 q	
18	AltGr	Ignore		18	g	f	0x1ff	Not Returned	
19	Base	e	Lowercase e	19	b	c	< 101	0x65	CL
19	Shift	E	Uppercase e	19	s	c	< 69	0x45	
19	Ctrl	ENQ	Enquiry	19	c	c	< 5	0x05	
19	Alt	PFK	76	19	a	f	0x4c	ESC [ 0 7 6 q	
19	AltGr	Ignore		19	g	f	0x1ff	Not Returned	
20	Base	r	Lowercase r	20	b	c	< 114	0x72	CL
20	Shift	R	Uppercase r	20	s	c	< 82	0x52	
20	Ctrl	DC2	Device Control 2	20	c	c	< 18	0x12	
20	Alt	PFK	77	20	a	f	0x4d	ESC [ 0 7 7 q	
20	AltGr	Ignore		20	g	f	0x1ff	Not Returned	
21	Base	t	Lowercase t	21	b	c	< 116	0x74	CL
21	Shift	T	Uppercase t	21	s	c	< 84	0x54	
21	Ctrl	DC4	Device Control 4	21	c	c	< 20	0x14	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore		21	g	f	0x1ff	Not Returned	
22	Base	z	Lowercase z	22	b	c	< 122	0x7a	CL
22	Shift	Z	Uppercase z	22	s	c	< 90	0x5a	
22	Ctrl	SUB	Substitute Char.	22	c	c	< 26	0x1a	
22	Alt	PFK	101	22	a	f	0x65	ESC [ 1 0 1 q	
22	AltGr	Ignore		22	g	f	0x1ff	Not Returned	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore		23	g	f	0x1ff	Not Returned	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore		24	g	f	0x1ff	Not Returned	
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
25	AltGr	Ignore		25	g	f	0x1ff	Not Returned	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
26	AltGr	Ignore		26	g	f	0x1ff	Not Returned	
27	Base	è	e Grave Small	27	b	c	< 138	0x8a	
27	Shift	ü	u Diaeresis Small	27	s	c	< 129	0x81	
27	Ctrl	ESC	Escape	27	c	c	< 27	0x1b	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
27	AltGr	[	Left Bracket	27	g	c	< 91	0x5b	
28	Base	¨	Diaeresis Accent	28	b	d	= 90	0x1fda	DK/P1
28	Shift	!	Exclamation Point	28	s	c	< 33	0x21	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
28	Ctrl	SS3	Single Shift 3	28	c	c	< 29	0x1d	
28	Alt	PFK	85	28	a	f	0x55	ESC [ 0 8 5 q	
28	AltGr	]	Right Bracket	28	g	c	< 93	0x5d	
29	Not available on keyboard								
30	Base	Caps Lock		None				Not Returned	
30	Shift	Caps Lock		None				Not Returned	
30	Ctrl	Caps Lock		None				Not Returned	
30	Alt	Caps Lock		None				Not Returned	
30	AltGr	Caps Lock		None				Not Returned	
31	Base	a	Lowercase a	31	b	c	< 97	0x61	CL
31	Shift	A	Uppercase a	31	s	c	< 65	0x41	
31	Ctrl	SOH	Start of Header	31	c	c	< 1	0x01	
31	Alt	PFK	87	31	a	f	0x57	ESC [ 0 8 7 q	
31	AltGr	Ignore		31	g	f	0x1ff	Not Returned	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK	88	32	a	f	0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore		32	g	f	0x1ff	Not Returned	
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK	89	33	a	f	0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore		33	g	f	0x1ff	Not Returned	
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK	90	34	a	f	0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore		34	g	f	0x1ff	Not Returned	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore		35	g	f	0x1ff	Not Returned	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK 92		36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK 93		37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK 94		38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK 95		39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	é	e Acute Small	40	b	c	< 130	0x82	
40	Shift	ö	o Diaeresis Small	40	s	c	< 148	0x94	
40	Ctrl	PFK 96		40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK 97		40	a	f	0x61	ESC [ 0 9 7 q	
40	AltGr	Ignore		40	g	f	0x1ff	Not Returned	
41	Base	à	a Grave Small	41	b	c	< 133	0x85	
41	Shift	ä	a Diaeresis Small	41	s	c	< 132	0x84	
41	Ctrl	PFK 98		41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK 99		41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	{	Left Brace	41	g	c	< 123	0x7b	
42	Base	\$	Dollar Sign	42	b	c	< 36	0x24	
42	Shift	£	Pounds Sterling	42	s	c	< 156	0x9c	
42	Ctrl	Ignore		42	c	f	0x1ff	Not Returned	
42	Alt	Ignore		42	a	f	0x1ff	Not Returned	
42	AltGr	}	Right Brace	42	g	c	< 125	0x7d	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK 100		43	a	f	0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore		43	g	f	0x1ff	Not Returned	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
44	AltGr	Shift (Left)		None				Not Returned	
45	Base	<	Less Than Sign	45	b	c	< 60	0x3c	
45	Shift	>	Greater Than Sign	45	s	c	< 62	0x3e	
45	Ctrl	SS4	Single Shift 4	45	c	c	< 28	0x1c	
45	Alt	PFK 86		45	a	f	0x56	ESC [ 0 8 6 q	
45	AltGr	\	Reverse Slash	45	g	c	< 92	0x5c	
46	Base	y	Lowercase y	46	b	c	< 121	0x79	CL
46	Shift	Y	Uppercase y	46	s	c	< 89	0x59	
46	Ctrl	EM	End of Media	46	c	c	< 25	0x19	
46	Alt	PFK 79		46	a	f	0x4f	ESC [ 0 7 9 q	
46	AltGr	Ignore		46	g	f	0x1ff	Not Returned	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK 102		47	a	f	0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore		47	g	f	0x1ff	Not Returned	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of Text	48	c	c	< 3	0x03	
48	Alt	PFK 103		48	a	f	0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore		48	g	f	0x1ff	Not Returned	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK 104		49	a	f	0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore		49	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
50	Base	b Lowercase b	50 b c < 98	0x62	CL
50	Shift	B Uppercase b	50 s c < 66	0x42	
50	Ctrl	STX Start of Text	50 c c < 2	0x02	
50	Alt	PFK 105	50 a f 0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore	50 g f 0x1ff	Not Returned	
51	Base	n Lowercase n	51 b c < 110	0x6e	CL
51	Shift	N Uppercase n	51 s c < 78	0x4e	
51	Ctrl	SO Shift Out	51 c c < 14	0x0e	
51	Alt	PFK 106	51 a f 0x65	ESC [ 1 0 6 q	
51	AltGr	Ignore	51 g f 0x1ff	Not Returned	
52	Base	m Lowercase m	52 b c < 109	0x6d	CL
52	Shift	M Uppercase m	52 s c < 77	0x4d	
52	Ctrl	CR Carriage Return	52 c c < 13	0x0d	
52	Alt	PFK 107	52 a f 0x66	ESC [ 1 0 7 q	
52	AltGr	Ignore	52 g f 0x1ff	Not Returned	
53	Base	, Comma	53 b c < 44	0x2c	
53	Shift	; Semicolon	53 s c < 59	0x3b	
53	Ctrl	PFK 108	53 c f 0x6c	ESC [ 1 0 8 q	
53	Alt	PFK 109	53 a f 0x6d	ESC [ 1 0 9 q	
53	AltGr	Ignore	53 g f 0x1ff	Not Returned	
54	Base	. Period	54 b c < 46	0x2e	
54	Shift	: Colon	54 s c < 58	0x3a	
54	Ctrl	PFK 110	54 c f 0x6e	ESC [ 1 1 0 q	
54	Alt	PFK 111	54 a f 0x6f	ESC [ 1 1 1 q	
54	AltGr	Ignore	54 g f 0x1ff	Not Returned	
55	Base	- Hyphen, Minus Sign	55 b c < 45	0x2d	
55	Shift	_ Underscore	55 s c < 95	0x5f	
55	Ctrl	SS1 Single Shift 1	55 c c < 31	0x1f	
55	Alt	PFK 68	55 a f 0x44	ESC [ 0 6 8 q	
55	AltGr	Ignore	55 g f 0x1ff	Not Returned	
56	Not available on keyboard				
57	Base	Shift (Right)	None	Not Returned	
57	Shift	Shift (Right)	None	Not Returned	
57	Ctrl	Shift (Right)	None	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
57	Alt	Shift (Right)	None	Reserved for IBM 5080	
57	AltGr	Shift (Right)	None	Not Returned	
58	Base	Control	None	Not Returned	
58	Shift	Control	None	Not Returned	
58	Ctrl	Control	None	Not Returned	
58	Alt	Control	None	Not Returned	
58	AltGr	Control	None	Not Returned	
59	Not available on keyboard				
60	Base	Alternate Shift	None	Not Returned	
60	Shift	Alternate Shift	None	Not Returned	
60	Ctrl	Alternate Shift	None	Not Returned	
60	Alt	Alternate Shift	None	Not Returned	
60	AltGr	Alternate Shift	None	Not Returned	
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff	Not Returned	
62	Base	Alternate Graphic Shift	None	Not Returned	
62	Shift	Alternate Graphic Shift	None	Not Returned	
62	Ctrl	Alternate Graphic Shift	None	Not Returned	
62	Alt	Alternate Graphic Shift	None	Not Returned	
62	AltGr	Alternate Graphic Shift	None	Not Returned	
63	Not available on keyboard				
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None	VTRM Previous Window	
64	Ctrl	VTRM Windows Window	None	VTRM Windows Window	
64	Alt	VTRM Next Window	None	VTRM Next Window	
64	AltGr	VTRM Next Window	None	VTRM Next Window	
65 - 74	Not available on keyboard				
75	Base	PFK 139 INS Toggle	75 b f 0x8b	ESC [ 1 3 9 q	
75	Shift	PFK 139 INS Toggle	75 s f 0x8b	ESC [ 1 3 9 q	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned
77	Not available on keyboard							
78	Not available on keyboard							
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned
80	Base	HOME		80	b	f	0x108	ESC [ H
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned
82	Not available on keyboard							
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
84	Base	CUD Cursor Down	84 b f 0x102	ESC [ B	
84	Shift	PFK 164	84 s f 0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK 165	84 c f 0xa5	ESC [ 1 6 5 q	
84	Alt	PFK 166	84 a f 0xa6	ESC [ 1 6 6 q	
84	AltGr	Ignore	84 g f 0x1ff	Not Returned	
85	Base	PFK 150	85 b f 0x96	ESC [ 1 5 0 q	
85	Shift	PFK 151	85 s f 0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK 152	85 c f 0x98	ESC [ 1 5 2 q	
85	Alt	PFK 153	85 a f 0x99	ESC [ 1 5 3 q	
85	AltGr	Ignore	85 g f 0x1ff	Not Returned	
86	Base	PFK 154	86 b f 0x9a	ESC [ 1 5 4 q	
86	Shift	PFK 155	86 s f 0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK 156	86 c f 0x9c	ESC [ 1 5 6 q	
86	Alt	PFK 157	86 a f 0x9d	ESC [ 1 5 7 q	
86	AltGr	Ignore	86 g f 0x1ff	Not Returned	
87	Not available on keyboard				
88	Not available on keyboard				
89	Base	CUF Cursor Forward	89 b f 0x103	ESC [ C	
89	Shift	PFK 167	89 s f 0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK 168	89 c f 0xa8	ESC [ 1 6 8 q	
89	Alt	PFK 169	89 a f 0xa9	ESC [ 1 6 9 q	
89	AltGr	Ignore	89 g f 0x1ff	Not Returned	
90	Base	NUM LOCK	None	Not Returned	
90	Shift	NUM LOCK	None	Not Returned	
90	Ctrl	DC3 Device Control 3	90 c c < 19	0x13	
90	Alt	PFK 170	90 a f 0xaa	ESC [ 1 7 0 q	
90	AltGr	Ignore	90 g f 0x1ff	Not Returned	
91	Base	⌈ Upper Left Corner	91 b c < 218	0xda	
91	Shift	7 Seven	91 s c < 55	0x37	
91	Ctrl	PFK 172	91 c f 0xac	ESC [ 1 7 2 q	
91	Alt	Alt + Num Entry	None	Return at Alt Break	
91	AltGr	Ignore	91 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
92	Base	┘	Left Edge Int.	92	b	c	< 195	0xc3
92	Shift	4	Four	92	s	c	< 52	0x34
92	Ctrl	PFK 174		92	c	f	0xae	ESC [ 1 7 4 q
92	Alt	Alt+ Num Entry		None				Return at Alt Break
92	AltGr	Ignore		92	g	f	0x1ff	Not Returned
93	Base	┘	Lower Left Corner	93	b	c	< 192	0xc0
93	Shift	1	One	93	s	c	< 49	0x31
93	Ctrl	PFK 176		93	c	f	0xb0	ESC [ 1 7 6 q
93	Alt	Alt+ Num Entry		None				Return at Alt Break
93	AltGr	Ignore		93	g	f	0x1ff	Not Returned
94	Not available on keyboard							
95	Base	/	Slash	95	b	c	< 47	0x2f
95	Shift	/	Slash	95	s	c	< 47	0x2f
95	Ctrl	PFK 179		95	c	f	0xb3	ESC [ 1 7 9 q
95	Alt	PFK 180		95	a	f	0xb4	ESC [ 1 8 0 q
95	AltGr	Ignore		95	g	f	0x1ff	Not Returned
96	Base	┘	Top Edge Int.	96	b	c	< 194	0xc2
96	Shift	8	Eight	96	s	c	< 56	0x38
96	Ctrl	PFK 182		96	c	f	0xb6	ESC [ 1 8 2 q
96	Alt	Alt+ Num Entry		None				Return at Alt break
96	AltGr	Ignore		96	g	f	0x1ff	Not Returned
97	Base	+	Center Intersection	97	b	c	< 197	0xc5
97	Shift	5	Five	97	s	c	< 53	0x35
97	Ctrl	PFK 184		97	c	f	0xb8	ESC [ 1 8 4 q
97	Alt	Alt+ Num Entry		None				Return at Alt break
97	AltGr	Ignore		97	g	f	0x1ff	Not Returned
98	Base	┘	Bottom Intersection	98	b	c	< 193	0xc1
98	Shift	2	Two	98	s	c	< 50	0x32
98	Ctrl	PFK 186		98	c	f	0xba	ESC [ 1 8 6 q
98	Alt	Alt+ Num Entry		None				Return at Alt break
98	AltGr	Ignore		98	g	f	0x1ff	Not Returned
99	Base		Vertical Bar	99	b	c	< 179	0xb3
99	Shift	0	Zero	99	s	c	< 48	0x30
99	Ctrl	PFK 178		99	c	f	0xb2	ESC [ 1 7 8 q

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
99	Alt	Alt + Num Entry	None		Return at Alt break
99	AltGr	Ignore	99 g f 0x1ff		Not Returned
100	Base	* Asterisk	100 b c < 42		0x2a
100	Shift	* Asterisk	100 s c < 42		0x2a
100	Ctrl	PFK 187	100 c f 0xbb		ESC [ 1 8 7 q
100	Alt	PFK 188	100 a f 0xbc		ESC [ 1 8 8 q
100	AltGr	Ignore	100 g f 0x1ff		Not Returned
101	Base	7 Upper Right Corner	101 b c < 191		0xbf
101	Shift	9 Nine	101 s c < 57		0x39
101	Ctrl	PFK 190	101 c f 0xbe		ESC [ 1 9 0 q
101	Alt	Alt + Num Entry	None		Return at Alt break
101	AltGr	Ignore	101 g f 0x1ff		Not Returned
102	Base	4 Right Edge Int.	102 b c < 180		0xb4
102	Shift	6 Six	102 s c < 54		0x36
102	Ctrl	PFK 192	102 c f 0xc0		ESC [ 1 9 2 q
102	Alt	Alt + Num Entry	None		Return at Alt break
102	AltGr	Ignore	102 g f 0x1ff		Not Returned
103	Base	3 Lower Right Corner	103 b c < 217		0xd9
103	Shift	3 Three	103 s c < 51		0x33
103	Ctrl	PFK 194	103 c f 0xc2		ESC [ 1 9 4 q
103	Alt	Alt + Num Entry	None		Return at Alt break
103	AltGr	Ignore	103 g f 0x1ff		Not Returned
104	Base	- Horizontal Line	104 b c < 196		0xc4
104	Shift	. Period	104 s c < 46		0x2e
104	Ctrl	PFK 196	104 c f 0xc4		ESC [ 1 9 6 q
104	Alt	PFK 197	104 a f 0xc5		ESC [ 1 9 7 q
104	AltGr	Ignore	104 g f 0x1ff		Not Returned
105	Base	- Hyphen, Minus Sign	105 b c < 45		0x2d
105	Shift	- Hyphen, Minus Sign	105 s c < 45		0x2d
105	Ctrl	PFK 198	105 c f 0xc6		ESC [ 1 9 8 q
105	Alt	PFK 199	105 a f 0xc7		ESC [ 1 9 9 q
105	AltGr	Ignore	105 g f 0x1ff		Not Returned
106	Base	+ Plus Sign	106 b c < 43		0x2b
106	Shift	+ Plus Sign	106 s c < 43		0x2b



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
108	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
115	Base	PFK 4	115	b	f	0x04	ESC [ 0 0 4 q	
115	Shift	PFK 16	115	s	f	0x10	ESC [ 0 1 6 q	
115	Ctrl	PFK 28	115	c	f	0x1c	ESC [ 0 2 8 q	
115	Alt	PFK 40	115	a	f	0x28	ESC [ 0 4 0 q	
115	AltGr	Ignore	115	g	f	0x1ff	Not Returned	
116	Base	PFK 5	116	b	f	0x05	ESC [ 0 0 5 q	
116	Shift	PFK 17	116	s	f	0x11	ESC [ 0 1 7 q	
116	Ctrl	PFK 29	116	c	f	0x1d	ESC [ 0 2 9 q	
116	Alt	PFK 41	116	a	f	0x29	ESC [ 0 4 1 q	
116	AltGr	Ignore	116	g	f	0x1ff	Not Returned	
117	Base	PFK 6	117	b	f	0x06	ESC [ 0 0 6 q	
117	Shift	PFK 18	117	s	f	0x12	ESC [ 0 1 8 q	
117	Ctrl	PFK 30	117	c	f	0x1e	ESC [ 0 3 0 q	
117	Alt	PFK 42	117	a	f	0x2a	ESC [ 0 4 2 q	
117	AltGr	Ignore	117	g	f	0x1ff	Not Returned	
118	Base	PFK 7	118	b	f	0x07	ESC [ 0 0 7 q	
118	Shift	PFK 19	118	s	f	0x13	ESC [ 0 1 9 q	
118	Ctrl	PFK 31	118	c	f	0x1f	ESC [ 0 3 1 q	
118	Alt	PFK 43	118	a	f	0x2b	ESC [ 0 4 3 q	
118	AltGr	Ignore	118	g	f	0x1ff	Not Returned	
119	Base	PFK 8	119	b	f	0x08	ESC [ 0 0 8 q	
119	Shift	PFK 20	119	s	f	0x14	ESC [ 0 2 0 q	
119	Ctrl	PFK 32	119	c	f	0x20	ESC [ 0 3 2 q	
119	Alt	PFK 44	119	a	f	0x2c	ESC [ 0 4 4 q	
119	AltGr	Ignore	119	g	f	0x1ff	Not Returned	
120	Base	PFK 9	120	b	f	0x09	ESC [ 0 0 9 q	
120	Shift	PFK 21	120	s	f	0x15	ESC [ 0 2 1 q	
120	Ctrl	PFK 33	120	c	f	0x21	ESC [ 0 3 3 q	
120	Alt	PFK 45	120	a	f	0x2d	ESC [ 0 4 5 q	
120	AltGr	Ignore	120	g	f	0x1ff	Not Returned	
121	Base	PFK 10	121	b	f	0x0a	ESC [ 0 1 0 q	
121	Shift	PFK 22	121	s	f	0x16	ESC [ 0 2 2 q	
121	Ctrl	PFK 34	121	c	f	0x22	ESC [ 0 3 4 q	
121	Alt	PFK 46	121	a	f	0x2e	ESC [ 0 4 6 q	
121	AltGr	Ignore	121	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q	
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q	
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q	
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q	
122	AltGr	Ignore		122	g	f	0x1ff	Not Returned	
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q	
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q	
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q	
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q	
123	AltGr	Ignore		123	g	f	0x1ff	Not Returned	
124	Base	PFK	209	124	b	f	0xd1	ESC [ 2 0 9 q	
124	Shift	PFK	210	124	s	f	0xd2	ESC [ 2 1 0 q	
124	Ctrl	PFK	211	124	c	f	0xd3	ESC [ 2 1 1 q	
124	Alt	PFK	212	124	a	f	0xd4	ESC [ 2 1 2 q	
124	AltGr	Ignore		124	g	f	0x1ff	Not Returned	
125	Base	PFK	213	125	b	f	0xd5	ESC [ 2 1 3 q	
125	Shift	PFK	214	125	s	f	0xd6	ESC [ 2 1 4 q	
125	Ctrl	PFK	215	125	c	f	0xd7	ESC [ 2 1 5 q	
125	Alt	PFK	216	125	a	f	0xd8	ESC [ 2 1 6 q	
125	AltGr	Ignore		125	g	f	0x1ff	Not Returned	
126	Base	PFK	217	126	b	f	0xd9	ESC [ 2 1 7 q	
126	Shift	PFK	218	126	s	f	0xda	ESC [ 2 1 8 q	
126	Ctrl	DEL		126	c	c	< 127	0x7f	
126	Alt	DEL		126	a	c	< 127	0x7f	
126	AltGr	Ignore		126	g	f	0x1ff	Not Returned	

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# Appendix P. Swiss Keyboard Layout with German Table

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This appendix contains the keyboard layout and keyboard table information for the Swiss/German keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

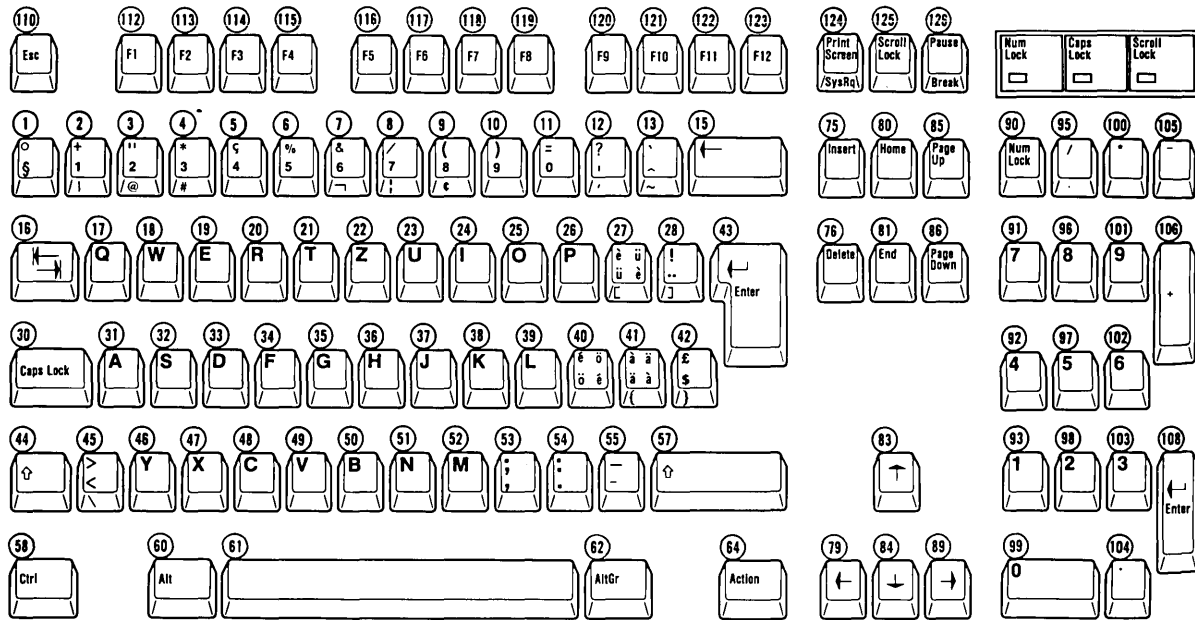
**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the **Alt** key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.

# Swiss/German Keyboard Layout



## Swiss/German Keyboard Table

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
1	Base	§	Section Symbol	1	b	c	< 245	0xf5	
1	Shift	°	Degree Symbol	1	s	c	< 248	0xf8	
1	Ctrl	PFK 57		1	c	f	0x39	ESC [ 0 5 7 q	
1	Alt	PFK 115		1	a	f	0x73	ESC [ 1 1 5 q	
1	AltGr	Ignore		1	g	f	0x1ff	Not Returned	
2	Base	1	One	2	b	c	< 49	0x31	
2	Shift	+	Plus Sign	2	s	c	< 43	0x2b	
2	Ctrl	PFK 49		2	c	f	0x31	ESC [ 0 4 9 q	
2	Alt	PFK 58		2	a	f	0x3a	ESC [ 0 5 8 q	
2	AltGr		Logical OR	2	g	f	< 224	0x7c	
3	Base	2	Two	3	b	c	< 50	0x32	
3	Shift	"	Double Quote	3	s	c	< 34	0x22	
3	Ctrl	NUL	Null	3	c	c	< 0	0x00	
3	Alt	PFK 59		3	a	f	0x3b	ESC [ 0 5 9 q	
3	AltGr	@	At Sign	3	g	c	< 64	0x40	
4	Base	3	Three	4	b	c	< 51	0x33	
4	Shift	*	Asterisk	4	s	c	< 42	0x2a	
4	Ctrl	PFK 50		4	c	f	0x32	ESC [ 0 5 0 q	
4	Alt	PFK 60		4	a	f	0x3c	ESC [ 0 6 0 q	
4	AltGr	#	Number Sign	4	g	c	< 35	0x23	
5	Base	4	Four	5	b	c	< 52	0x34	
5	Shift	ç	c Cedilla Small	4	s	c	< 135	0x87	
5	Ctrl	PFK 51		5	c	f	0x33	ESC [ 0 5 1 q	
5	Alt	PFK 61		5	a	f	0x3d	ESC [ 0 6 1 q	
5	AltGr	Ignore		5	g	f	0x1ff	Not Returned	
6	Base	5	Five	6	b	c	< 53	0x35	
6	Shift	%	Percent Sign	6	s	c	< 37	0x25	
6	Ctrl	PFK 52		6	c	f	0x34	ESC [ 0 5 2 q	
6	Alt	PFK 62		6	a	f	0x3e	ESC [ 0 6 2 q	
6	AltGr	Ignore		6	g	f	0x1ff	Not Returned	
7	Base	6	Six	7	b	c	< 54	0x36	
7	Shift	&	Ampersand	7	s	c	< 38	0x26	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
7	Ctrl	SS2	Single Shift 2	7	c	c	< 30	0x1e	
7	Alt	PFK	63	7	a	f	0x3f	ESC [ 0 6 3 q	
7	AltGr	¬	NOT Sign	7	g	c	< 170	0xaa	
8	Base	7	Seven	8	b	c	< 55	0x37	
8	Shift	/	Slash	8	s	c	< 47	0x2f	
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
8	AltGr		Broken Vertical Bar	8	g	c	< 221	0xdd	
9	Base	8	Eight	9	b	c	< 56	0x38	
9	Shift	(	Left Parenthesis	9	s	c	< 40	0x28	
9	Ctrl	PFK	54	9	c	f	0x36	ESC [ 0 5 4 q	
9	Alt	PFK	65	9	a	f	0x41	ESC [ 0 6 5 q	
9	AltGr	¢	Cent Sign	9	g	c	< 189	0xbd	
10	Base	9	Nine	10	b	c	< 57	0x39	
10	Shift	)	Right Parenthesis	10	s	c	< 41	0x29	
10	Ctrl	PFK	55	10	c	f	0x37	ESC [ 0 5 5 q	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
10	AltGr	Ignore		10	g	f	0x1ff	Not Returned	
11	Base	0	Zero	11	b	c	< 48	0x30	
11	Shift	=	Equal Sign	11	s	c	< 61	0x3d	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
11	AltGr	Ignore		11	g	f	0x1ff	Not Returned	
12	Base	'	Quote, Apostrophe	12	b	c	< 39	0x27	
12	Shift	?	Question Mark	12	s	c	< 63	0x3f	
12	Ctrl	PFK	112	12	c	f	0x70	ESC [ 1 1 2 q	
12	Alt	PFK	113	12	a	f	0x71	ESC [ 1 1 3 q	
12	AltGr	'	Acute Accent	12	g	d	< 239	0xef	DK
13	Base	^	Circumflex Accent	13	b	d	< 94	0x5e	DK
13	Shift	`	Grave Accent	13	s	d	< 96	0x60	DK
13	Ctrl	PFK	69	13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK	70	13	a	f	0x46	ESC [ 0 7 0 q	
13	AltGr	~	Tilde Accent	13	g	d	< 126	0x7e	DK

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
14		Not available on keyboard			
15	Base	BS Back Space	15 b c < 8	0x08	
15	Shift	BS Back Space	15 s c < 8	0x08	
15	Ctrl	DEL Delete	15 c c < 127	0x7f	
15	Alt	PFK 71	15 a f 0x47	ESC [ 0 7 1 q	
15	AltGr	Ignore	15 g f 0x1ff	Not Returned	
16	Base	HT Horizontal Tab	16 b c < 9	0x09	
16	Shift	CBT Cursor Back Tab	16 s f 0x105	ESC [ Z	
16	Ctrl	PFK 72	16 c f 0x48	ESC [ 0 7 2 q	
16	Alt	PFK 73	16 a f 0x49	ESC [ 0 7 3 q	
16	AltGr	Ignore	16 g f 0x1ff	Not Returned	
17	Base	q Lowercase q	17 b c < 113	0x71	CL
17	Shift	Q Uppercase q	17 s c < 81	0x51	
17	Ctrl	DC1 Device Control 1	17 c c < 17	0x11	
17	Alt	PFK 74	17 a f 0x4a	ESC [ 0 7 4 q	
17	AltGr	Ignore	17 g f 0x1ff	Not Returned	
18	Base	w Lowercase w	18 b c < 119	0x77	CL
18	Shift	W Uppercase w	18 s c < 87	0x57	
18	Ctrl	ETB End Trans Block	18 c c < 23	0x17	
18	Alt	PFK 75	18 a f 0x4b	ESC [ 0 7 5 q	
18	AltGr	Ignore	18 g f 0x1ff	Not Returned	
19	Base	e Lowercase e	19 b c < 101	0x65	CL
19	Shift	E Uppercase e	19 s c < 69	0x45	
19	Ctrl	ENQ Enquiry	19 c c < 5	0x05	
19	Alt	PFK 76	19 a f 0x4c	ESC [ 0 7 6 q	
19	AltGr	Ignore	19 g f 0x1ff	Not Returned	
20	Base	r Lowercase r	20 b c < 114	0x72	CL
20	Shift	R Uppercase r	20 s c < 82	0x52	
20	Ctrl	DC2 Device Control 2	20 c c < 18	0x12	
20	Alt	PFK 77	20 a f 0x4d	ESC [ 0 7 7 q	
20	AltGr	Ignore	20 g f 0x1ff	Not Returned	
21	Base	t Lowercase t	21 b c < 116	0x74	CL
21	Shift	T Uppercase t	21 s c < 84	0x54	
21	Ctrl	DC4 Device Control 4	21 c c < 20	0x14	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore		21	g	f	0x1ff	Not Returned	
22	Base	z	Lowercase z	22	b	c	< 122	0x7a	CL
22	Shift	Z	Uppercase z	22	s	c	< 90	0x5a	
22	Ctrl	SUB	Substitute Char.	22	c	c	< 26	0x1a	
22	Alt	PFK	101	22	a	f	0x65	ESC [ 1 0 1 q	
22	AltGr	Ignore		22	g	f	0x1ff	Not Returned	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore		23	g	f	0x1ff	Not Returned	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore		24	g	f	0x1ff	Not Returned	
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
25	AltGr	Ignore		25	g	f	0x1ff	Not Returned	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
26	AltGr	Ignore		26	g	f	0x1ff	Not Returned	
27	Base	ü	u Diaeresis Small	27	b	c	< 129	0x81	
27	Shift	è	e Grave Small	27	s	c	< 138	0x8a	
27	Ctrl	ESC	Escape	27	c	c	< 27	0x1b	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
27	AltGr	[	Left Bracket	27	g	c	< 91	0x5b	
28	Base	¨	Diaeresis Accent	28	b	d	< 249	0xf9	DK
28	Shift	!	Exclamation Point	28	s	c	< 33	0x21	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
28	Ctrl	SS3	Single Shift 3	28	c	c	< 29	0x1d	
28	Alt	PFK	85	28	a	f	0x55	ESC [ 0 8 5 q	
28	AltGr	]	Right Bracket	28	g	c	< 93	0x5d	
29	Not Available on keyboard								
30	Base	Caps Lock		None				Not Returned	
30	Shift	Caps Lock		None				Not Returned	
30	Ctrl	Caps Lock		None				Not Returned	
30	Alt	Caps Lock		None				Not Returned	
30	AltGr	Caps Lock		None				Not Returned	
31	Base	a	Lowercase a	31	b	c	< 97	0x61	CL
31	Shift	A	Uppercase a	31	s	c	< 65	0x41	
31	Ctrl	SOH	Start of Header	31	c	c	< 1	0x01	
31	Alt	PFK	87	31	a	f	0x57	ESC [ 0 8 7 q	
31	AltGr	Ignore		31	g	f	0x1ff	Not Returned	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK	88	32	a	f	0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore		32	g	f	0x1ff	Not Returned	
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK	89	33	a	f	0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore		33	g	f	0x1ff	Not Returned	
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK	90	34	a	f	0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore		34	g	f	0x1ff	Not Returned	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore		35	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes	
				nnn	s	t			-----
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK 92		36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK 93		37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK 94		38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK 95		39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	ö	o Diaeresis Small	40	b	c	< 148	0x94	
40	Shift	é	e Acute Small	40	s	c	< 130	0x82	
40	Ctrl	PFK 96		40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK 97		40	a	f	0x61	ESC [ 0 9 7 q	
40	AltGr	Ignore		40	g	f	0x1ff	Not Returned	
41	Base	ä	a Diaeresis Small	41	b	c	< 132	0x84	
41	Shift	à	a Grave Small	41	s	c	< 133	0x85	
41	Ctrl	PFK 98		41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK 99		41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	{	Left Brace	41	g	c	< 123	0x7b	
42	Base	\$	Dollar Sign	42	b	c	< 36	0x24	
42	Shift	£	Pounds Sterling	42	s	c	< 156	0x9c	
42	Ctrl	Ignore		42	c	f	0x1ff	Not Returned	
42	Alt	Ignore		42	a	f	0x1ff	Not Returned	
42	AltGr	}	Right Brace	42	g	c	< 125	0x7d	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK 100		43	a	f	0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore		43	g	f	0x1ff	Not Returned	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
44	AltGr	Shift (Left)		None				Not Returned	
45	Base	<	Less Than Sign	45	b	c	< 60	0x3c	
45	Shift	>	Greater Than Sign	45	s	c	< 62	0x3e	
45	Ctrl	SS4	Single Shift 4	45	c	c	< 28	0x1c	
45	Alt	PFK 86		45	a	f	0x56	ESC [ 0 8 6 q	
45	AltGr	\	Reverse Slash	45	g	c	< 92	0x5c	
46	Base	y	Lowercase y	46	b	c	< 121	0x79	CL
46	Shift	Y	Uppercase y	46	s	c	< 89	0x59	
46	Ctrl	EM	End of Media	46	c	c	< 25	0x19	
46	Alt	PFK 79		46	a	f	0x4f	ESC [ 0 7 9 q	
46	AltGr	Ignore		46	g	f	0x1ff	Not Returned	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK 102		47	a	f	0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore		47	g	f	0x1ff	Not Returned	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of Text	48	c	c	< 3	0x03	
48	Alt	PFK 103		48	a	f	0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore		48	g	f	0x1ff	Not Returned	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK 104		49	a	f	0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore		49	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK 105		50	a	f	0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore		50	g	f	0x1ff	Not Returned	
51	Base	n	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK 106		51	a	f	0x65	ESC [ 1 0 6 q	
51	AltGr	Ignore		51	g	f	0x1ff	Not Returned	
52	Base	m	Lowercase m	52	b	c	< 109	0x6d	CL
52	Shift	M	Uppercase m	52	s	c	< 77	0x4d	
52	Ctrl	CR	Carriage Return	52	c	c	< 13	0x0d	
52	Alt	PFK 107		52	a	f	0x66	ESC [ 1 0 7 q	
52	AltGr	Ignore		52	g	f	0x1ff	Not Returned	
53	Base	,	Comma	53	b	c	< 44	0x2c	
53	Shift	;	Semicolon	53	s	c	< 59	0x3b	
53	Ctrl	PFK 108		53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK 109		53	a	f	0x6d	ESC [ 1 0 9 q	
53	AltGr	Ignore		53	g	f	0x1ff	Not Returned	
54	Base	.	Period	54	b	c	< 46	0x2e	
54	Shift	:	Colon	54	s	c	< 58	0x3a	
54	Ctrl	PFK 110		54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK 111		54	a	f	0x6f	ESC [ 1 1 1 q	
54	AltGr	Ignore		54	g	f	0x1ff	Not Returned	
55	Base	-	Hyphen, Minus Sign	55	b	c	< 45	0x2d	
55	Shift	_	Underscore	55	s	c	< 95	0x5f	
55	Ctrl	SS1	Single Shift 1	55	c	c	< 31	0x1f	
55	Alt	PFK 68		55	a	f	0x44	ESC [ 0 6 8 q	
55	AltGr	Ignore		55	g	f	0x1ff	Not Returned	
56	Not available on keyboard								
57	Base	Shift (Right)		None				Not Returned	
57	Shift	Shift (Right)		None				Not Returned	
57	Ctrl	Shift (Right)		None				Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition n n n s t -----	Returned String	Notes
57	Alt	Shift (Right)	None	Reserved for IBM 5080	
57	AltGr	Shift (Right)	None	Not Returned	
58	Base	Control	None	Not Returned	
58	Shift	Control	None	Not Returned	
58	Ctrl	Control	None	Not Returned	
58	Alt	Control	None	Not Returned	
58	AltGr	Control	None	Not Returned	
59	Not available on keyboard				
60	Base	Alternate Shift	None	Not Returned	
60	Shift	Alternate Shift	None	Not Returned	
60	Ctrl	Alternate Shift	None	Not Returned	
60	Alt	Alternate Shift	None	Not Returned	
60	AltGr	Alternate Shift	None	Not Returned	
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff	Not Returned	
62	Base	Alternate Graphic Shift	None	Not Returned	
62	Shift	Alternate Graphic Shift	None	Not Returned	
62	Ctrl	Alternate Graphic Shift	None	Not Returned	
62	Alt	Alternate Graphic Shift	None	Not Returned	
62	AltGr	Alternate Graphic Shift	None	Not Returned	
63	Not available on keyboard				
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None	VTRM Previous Window	
64	Ctrl	VTRM Windows Window	None	VTRM Windows Window	
64	Alt	VTRM Next Window	None	VTRM Next Window	
64	AltGr	VTRM Next Window	None	VTRM Next Window	
65 - 74	Not available on keyboard				
75	Base	PFK 139 INS Toggle	75 b f 0x8b	ESC [ 1 3 9 q	
75	Shift	PFK 139 INS Toggle	75 s f 0x8b	ESC [ 1 3 9 q	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q	
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q	
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned	
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P	
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P	
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q	
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M	
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned	
77	Not available on keyboard								
78	Not available on keyboard								
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D	
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q	
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q	
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q	
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned	
80	Base	HOME		80	b	f	0x108	ESC [ H	
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q	
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q	
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q	
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned	
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q	
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q	
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q	
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q	
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned	
82	Not available on keyboard								
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A	
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q	
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q	
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q	
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
84	Base	CUD Cursor Down	84 b f 0x102	ESC [ B	
84	Shift	PFK 164	84 s f 0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK 165	84 c f 0xa5	ESC [ 1 6 5 q	
84	Alt	PFK 166	84 a f 0xa6	ESC [ 1 6 6 q	
84	AltGr	Ignore	84 g f 0x1ff	Not Returned	
85	Base	PFK 150	85 b f 0x96	ESC [ 1 5 0 q	
85	Shift	PFK 151	85 s f 0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK 152	85 c f 0x98	ESC [ 1 5 2 q	
85	Alt	PFK 153	85 a f 0x99	ESC [ 1 5 3 q	
85	AltGr	Ignore	85 g f 0x1ff	Not Returned	
86	Base	PFK 154	86 b f 0x9a	ESC [ 1 5 4 q	
86	Shift	PFK 155	86 s f 0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK 156	86 c f 0x9c	ESC [ 1 5 6 q	
86	Alt	PFK 157	86 a f 0x9d	ESC [ 1 5 7 q	
86	AltGr	Ignore	86 g f 0x1ff	Not Returned	
87	Not available on keyboard				
88	Not available on keyboard				
89	Base	CUF Cursor Forward	89 b f 0x103	ESC [ C	
89	Shift	PFK 167	89 s f 0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK 168	89 c f 0xa8	ESC [ 1 6 8 q	
89	Alt	PFK 169	89 a f 0xa9	ESC [ 1 6 9 q	
89	AltGr	Ignore	89 g f 0x1ff	Not Returned	
90	Base	NUM LOCK	None	Not Returned	
90	Shift	NUM LOCK	None	Not Returned	
90	Ctrl	DC3 Device Control 3	90 c c < 19	0x13	
90	Alt	PFK 170	90 a f 0xaa	ESC [ 1 7 0 q	
90	AltGr	Ignore	90 g f 0x1ff	Not Returned	
91	Base	r Upper Left Corner	91 b c < 218	0xda	
91	Shift	7 Seven	91 s c < 55	0x37	
91	Ctrl	PFK 172	91 c f 0xac	ESC [ 1 7 2 q	
91	Alt	Alt+Num Entry	None	Return at Alt Break	
91	AltGr	Ignore	91 g f 0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
92	Base	⏏ Left Edge Int.	92 b c < 195	0xc3	
92	Shift	4 Four	92 s c < 52	0x34	
92	Ctrl	PFK 174	92 c f 0xae	ESC [ 1 7 4 q	
92	Alt	Alt+Num Entry	None	Return at Alt Break	
92	AltGr	Ignore	92 g f 0x1ff	Not Returned	
93	Base	⏏ Lower Left Corner	93 b c < 192	0xc0	
93	Shift	1 One	93 s c < 49	0x31	
93	Ctrl	PFK 176	93 c f 0xb0	ESC [ 1 7 6 q	
93	Alt	Alt+Num Entry	None	Return at Alt Break	
93	AltGr	Ignore	93 g f 0x1ff	Not Returned	
94	Not available on keyboard				
95	Base	/ Slash	95 b c < 47	0x2f	
95	Shift	/ Slash	95 s c < 47	0x2f	
95	Ctrl	PFK 179	95 c f 0xb3	ESC [ 1 7 9 q	
95	Alt	PFK 180	95 a f 0xb4	ESC [ 1 8 0 q	
95	AltGr	Ignore	95 g f 0x1ff	Not Returned	
96	Base	⏏ Top Edge Int.	96 b c < 194	0xc2	
96	Shift	8 Eight	96 s c < 56	0x38	
96	Ctrl	PFK 182	96 c f 0xb6	ESC [ 1 8 2 q	
96	Alt	Alt+Num Entry	None	Return at Alt break	
96	AltGr	Ignore	96 g f 0x1ff	Not Returned	
97	Base	⏏ Center Intersection	97 b c < 197	0xc5	
97	Shift	5 Five	97 s c < 53	0x35	
97	Ctrl	PFK 184	97 c f 0xb8	ESC [ 1 8 4 q	
97	Alt	Alt+Num Entry	None	Return at Alt break	
97	AltGr	Ignore	97 g f 0x1ff	Not Returned	
98	Base	⏏ Bottom Intersection	98 b c < 193	0xc1	
98	Shift	2 Two	98 s c < 50	0x32	
98	Ctrl	PFK 186	98 c f 0xba	ESC [ 1 8 6 q	
98	Alt	Alt+Num Entry	None	Return at Alt break	
98	AltGr	Ignore	98 g f 0x1ff	Not Returned	
99	Base	Vertical Bar	99 b c < 179	0xb3	
99	Shift	0 Zero	99 s c < 48	0x30	
99	Ctrl	PFK 178	99 c f 0xb2	ESC [ 1 7 8 q	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
99	Alt	Alt+Num Entry	None		Return at Alt break
99	AltGr	Ignore	99 g f 0x1ff		Not Returned
100	Base	* Asterisk	100 b c < 42	0x2a	
100	Shift	* Asterisk	100 s c < 42	0x2a	
100	Ctrl	PFK 187	100 c f 0xbb	ESC [ 1 8 7 q	
100	Alt	PFK 188	100 a f 0xbc	ESC [ 1 8 8 q	
100	AltGr	Ignore	100 g f 0x1ff		Not Returned
101	Base	⌋ Upper Right Corner	101 b c < 191	0xbf	
101	Shift	9 Nine	101 s c < 57	0x39	
101	Ctrl	PFK 190	101 c f 0xbe	ESC [ 1 9 0 q	
101	Alt	Alt+Num Entry	None		Return at Alt break
101	AltGr	Ignore	101 g f 0x1ff		Not Returned
102	Base	⌋ Right Edge Int.	102 b c < 180	0xb4	
102	Shift	6 Six	102 s c < 54	0x36	
102	Ctrl	PFK 192	102 c f 0xc0	ESC [ 1 9 2 q	
102	Alt	Alt+Num Entry	None		Return at Alt break
102	AltGr	Ignore	102 g f 0x1ff		Not Returned
103	Base	⌋ Lower Right Corner	103 b c < 217	0xd9	
103	Shift	3 Three	103 s c < 51	0x33	
103	Ctrl	PFK 194	103 c f 0xc2	ESC [ 1 9 4 q	
103	Alt	Alt+Num Entry	None		Return at Alt break
103	AltGr	Ignore	103 g f 0x1ff		Not Returned
104	Base	- Horizontal Line	104 b c < 196	0xc4	
104	Shift	. Period	104 s c < 46	0x2e	
104	Ctrl	PFK 196	104 c f 0xc4	ESC [ 1 9 6 q	
104	Alt	PFK 197	104 a f 0xc5	ESC [ 1 9 7 q	
104	AltGr	Ignore	104 g f 0x1ff		Not Returned
105	Base	- Hyphen, Minus Sign	105 b c < 45	0x2d	
105	Shift	- Hyphen, Minus Sign	105 s c < 45	0x2d	
105	Ctrl	PFK 198	105 c f 0xc6	ESC [ 1 9 8 q	
105	Alt	PFK 199	105 a f 0xc7	ESC [ 1 9 9 q	
105	AltGr	Ignore	105 g f 0x1ff		Not Returned
106	Base	+ Plus Sign	106 b c < 43	0x2b	
106	Shift	+ Plus Sign	106 s c < 43	0x2b	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned
107	Not available on keyboard							
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d
108	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned
109	Not available on keyboard							
110	Base	ESC	Escape	110	b	c	< 27	0x1b
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned
111	Not available on keyboard							
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
115	Base	PFK 4	115	b	f	0x04	ESC [ 0 0 4 q	
115	Shift	PFK 16	115	s	f	0x10	ESC [ 0 1 6 q	
115	Ctrl	PFK 28	115	c	f	0x1c	ESC [ 0 2 8 q	
115	Alt	PFK 40	115	a	f	0x28	ESC [ 0 4 0 q	
115	AltGr	Ignore	115	g	f	0x1ff	Not Returned	
116	Base	PFK 5	116	b	f	0x05	ESC [ 0 0 5 q	
116	Shift	PFK 17	116	s	f	0x11	ESC [ 0 1 7 q	
116	Ctrl	PFK 29	116	c	f	0x1d	ESC [ 0 2 9 q	
116	Alt	PFK 41	116	a	f	0x29	ESC [ 0 4 1 q	
116	AltGr	Ignore	116	g	f	0x1ff	Not Returned	
117	Base	PFK 6	117	b	f	0x06	ESC [ 0 0 6 q	
117	Shift	PFK 18	117	s	f	0x12	ESC [ 0 1 8 q	
117	Ctrl	PFK 30	117	c	f	0x1e	ESC [ 0 3 0 q	
117	Alt	PFK 42	117	a	f	0x2a	ESC [ 0 4 2 q	
117	AltGr	Ignore	117	g	f	0x1ff	Not Returned	
118	Base	PFK 7	118	b	f	0x07	ESC [ 0 0 7 q	
118	Shift	PFK 19	118	s	f	0x13	ESC [ 0 1 9 q	
118	Ctrl	PFK 31	118	c	f	0x1f	ESC [ 0 3 1 q	
118	Alt	PFK 43	118	a	f	0x2b	ESC [ 0 4 3 q	
118	AltGr	Ignore	118	g	f	0x1ff	Not Returned	
119	Base	PFK 8	119	b	f	0x08	ESC [ 0 0 8 q	
119	Shift	PFK 20	119	s	f	0x14	ESC [ 0 2 0 q	
119	Ctrl	PFK 32	119	c	f	0x20	ESC [ 0 3 2 q	
119	Alt	PFK 44	119	a	f	0x2c	ESC [ 0 4 4 q	
119	AltGr	Ignore	119	g	f	0x1ff	Not Returned	
120	Base	PFK 9	120	b	f	0x09	ESC [ 0 0 9 q	
120	Shift	PFK 21	120	s	f	0x15	ESC [ 0 2 1 q	
120	Ctrl	PFK 33	120	c	f	0x21	ESC [ 0 3 3 q	
120	Alt	PFK 45	120	a	f	0x2d	ESC [ 0 4 5 q	
120	AltGr	Ignore	120	g	f	0x1ff	Not Returned	
121	Base	PFK 10	121	b	f	0x0a	ESC [ 0 1 0 q	
121	Shift	PFK 22	121	s	f	0x16	ESC [ 0 2 2 q	
121	Ctrl	PFK 34	121	c	f	0x22	ESC [ 0 3 4 q	
121	Alt	PFK 46	121	a	f	0x2e	ESC [ 0 4 6 q	
121	AltGr	Ignore	121	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
122	Base	PFK 11	122	b	f	0x0b	ESC [ 0 1 1 q	
122	Shift	PFK 23	122	s	f	0x17	ESC [ 0 2 3 q	
122	Ctrl	PFK 35	122	c	f	0x23	ESC [ 0 3 5 q	
122	Alt	PFK 47	122	a	f	0x2f	ESC [ 0 4 7 q	
122	AltGr	Ignore	122	g	f	0x1ff	Not Returned	
123	Base	PFK 12	123	b	f	0x0c	ESC [ 0 1 2 q	
123	Shift	PFK 24	123	s	f	0x18	ESC [ 0 2 4 q	
123	Ctrl	PFK 36	123	c	f	0x24	ESC [ 0 3 6 q	
123	Alt	PFK 48	123	a	f	0x30	ESC [ 0 4 8 q	
123	AltGr	Ignore	123	g	f	0x1ff	Not Returned	
124	Base	PFK 209	124	b	f	0xd1	ESC [ 2 0 9 q	
124	Shift	PFK 210	124	s	f	0xd2	ESC [ 2 1 0 q	
124	Ctrl	PFK 211	124	c	f	0xd3	ESC [ 2 1 1 q	
124	Alt	PFK 212	124	a	f	0xd4	ESC [ 2 1 2 q	
124	AltGr	Ignore	124	g	f	0x1ff	Not Returned	
125	Base	PFK 213	125	b	f	0xd5	ESC [ 2 1 3 q	
125	Shift	PFK 214	125	s	f	0xd6	ESC [ 2 1 4 q	
125	Ctrl	PFK 215	125	c	f	0xd7	ESC [ 2 1 5 q	
125	Alt	PFK 216	125	a	f	0xd8	ESC [ 2 1 6 q	
125	AltGr	Ignore	125	g	f	0x1ff	Not Returned	
126	Base	PFK 217	126	b	f	0xd9	ESC [ 2 1 7 q	
126	Shift	PFK 218	126	s	f	0xda	ESC [ 2 1 8 q	
126	Ctrl	DEL	126	c	c	< 127	0x7f	
126	Alt	DEL	126	a	c	< 127	0x7f	
126	AltGr	Ignore	126	g	f	0x1ff	Not Returned	

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# Appendix Q. UK English Keyboard Layout and Table



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This appendix contains the keyboard layout and keyboard table information for the UK English keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, Alt, or AltGr.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**g (alt gr)** – **AltGr** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

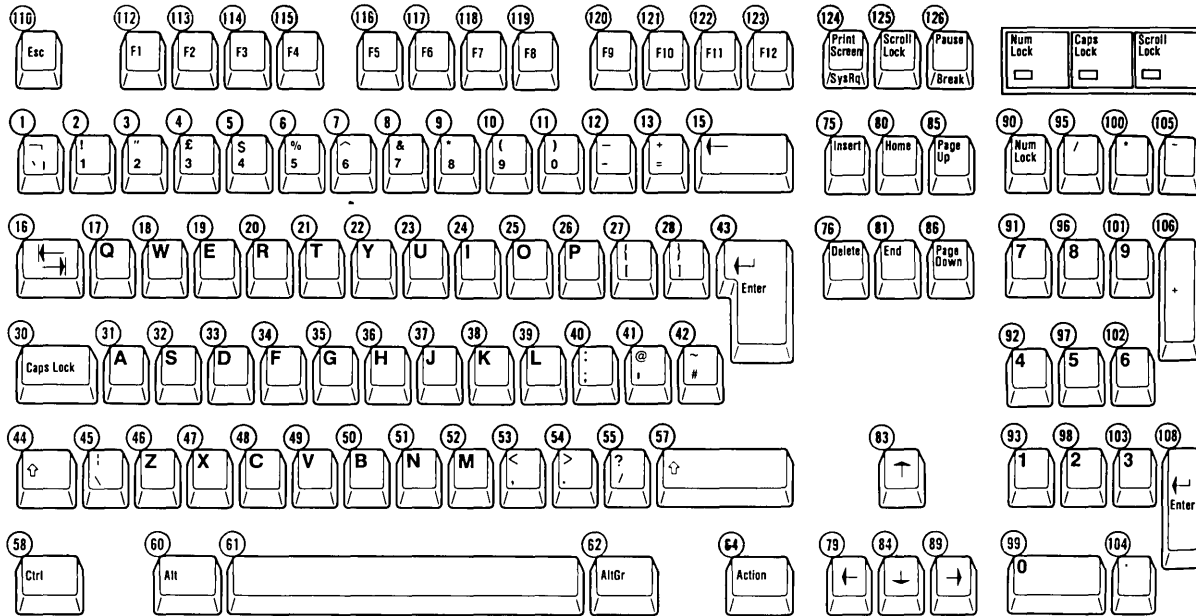
**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the Alt key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.

# UK English Keyboard Layout



## UK English Keyboard Table

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
1	Base	`	Grave Accent	1	b	c	< 96	0x60	
1	Shift	¬	NOT Sign	1	s	c	< 170	0xaa	
1	Ctrl	PFK	57	1	c	f	0x39	ESC [ 0 5 7 q	
1	Alt	PFK	115	1	a	f	0x73	ESC [ 1 1 5 q	
1	AltGr		Logical OR	1	g	c	< 124	0x7c	
2	Base	1	One	2	b	c	< 49	0x31	
2	Shift	!	Exclamation Point	2	s	c	< 33	0x21	
2	Ctrl	PFK	49	2	c	f	0x31	ESC [ 0 4 9 q	
2	Alt	PFK	58	2	a	f	0x3a	ESC [ 0 5 8 q	
2	AltGr	Ignore		2	g	f	0x1ff	Not Returned	
3	Base	2	Two	3	b	c	< 50	0x32	
3	Shift	"	Double Quote	3	s	c	< 34	0x22	
3	Ctrl	NUL	Null	3	c	c	< 0	0x00	
3	Alt	PFK	59	3	a	f	0x3b	ESC [ 0 5 9 q	
3	AltGr	Ignore		3	g	f	0x1ff	Not Returned	
4	Base	3	Three	4	b	c	< 51	0x33	
4	Shift	£	Pounds Sterling	4	s	c	< 156	0x9c	
4	Ctrl	PFK	50	4	c	f	0x32	ESC [ 0 5 0 q	
4	Alt	PFK	60	4	a	f	0x3c	ESC [ 0 6 0 q	
4	AltGr	Ignore		4	g	f	0x1ff	Not Returned	
5	Base	4	Four	5	b	c	< 52	0x34	
5	Shift	\$	Dollar Sign	5	s	c	< 36	0x24	
5	Ctrl	PFK	51	5	c	f	0x33	ESC [ 0 5 1 q	
5	Alt	PFK	61	5	a	f	0x3d	ESC [ 0 6 1 q	
5	AltGr	Ignore		5	g	f	0x1ff	Not Returned	
6	Base	5	Five	6	b	c	< 53	0x35	
6	Shift	%	Percent Sign	6	s	c	< 37	0x25	
6	Ctrl	PFK	52	6	c	f	0x34	ESC [ 0 5 2 q	
6	Alt	PFK	62	6	a	f	0x3e	ESC [ 0 6 2 q	
6	AltGr	Ignore		6	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
7	Base	6	Six	7	b	c	< 54	0x36	
7	Shift	^	Circumflex Accent	7	s	c	< 94	0x5e	
7	Ctrl	SS2	Single Shift 2	7	c	c	< 30	0x1e	
7	Alt	PFK	63	7	a	f	0x3f	ESC [ 0 6 3 q	
7	AltGr	Ignore		7	g	f	0x1ff	Not Returned	
8	Base	7	Seven	8	b	c	< 55	0x37	
8	Shift	&	Ampersand	8	s	c	< 38	0x26	
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
8	AltGr	Ignore		8	g	f	0x1ff	Not Returned	
9	Base	8	Eight	9	b	c	< 56	0x38	
9	Shift	*	Asterisk	9	s	c	< 42	0x2a	
9	Ctrl	PFK	54	9	c	f	0x36	ESC [ 0 5 4 q	
9	Alt	PFK	65	9	a	f	0x41	ESC [ 0 6 5 q	
9	AltGr	Ignore		9	g	f	0x1ff	Not Returned	
10	Base	9	Nine	10	b	c	< 57	0x39	
10	Shift	(	Left Parenthesis	10	s	c	< 40	0x28	
10	Ctrl	PFK	55	10	c	f	0x37	ESC [ 0 5 5 q	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
10	AltGr	Ignore		10	g	f	0x1ff	Not Returned	
11	Base	0	Zero	11	b	c	< 48	0x30	
11	Shift	)	Right Parenthesis	11	s	c	< 41	0x29	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
11	AltGr	Ignore		11	g	f	0x1ff	Not Returned	
12	Base	-	Hyphen	12	b	c	< 45	0x2d	
12	Shift	_	Underscore	12	s	c	< 95	0x5f	
12	Ctrl	SS1	Single Shift 1	12	c	c	< 31	0x1f	
12	Alt	PFK	68	12	a	f	0x44	ESC [ 0 6 8 q	
12	AltGr	Ignore		12	g	f	0x1ff	Not Returned	
13	Base	=	Equal Sign	13	b	c	< 61	0x3d	
13	Shift	+	Plus Sign	13	s	c	< 43	0x2b	
13	Ctrl	PFK	69	13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK	70	13	a	f	0x46	ESC [ 0 7 0 q	
13	AltGr	Ignore		13	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes	
				nnn	s	t			-----
14		Not available on keyboard							
15	Base	BS	Back Space	15	b	c	< 8	0x08	
15	Shift	BS	Back Space	15	s	c	< 8	0x08	
15	Ctrl	DEL	Delete	15	c	c	< 127	0x7f	
15	Alt	PFK	71	15	a	f	0x47	ESC [ 0 7 1 q	
15	AltGr	Ignore		15	g	f	0x1ff	Not Returned	
16	Base	HT	Horizontal Tab	16	b	c	< 9	0x09	
16	Shift	CBT	Cursor Back Tab	16	s	f	0x105	ESC [ Z	
16	Ctrl	PFK	72	16	c	f	0x48	ESC [ 0 7 2 q	
16	Alt	PFK	73	16	a	f	0x49	ESC [ 0 7 3 q	
16	AltGr	Ignore		16	g	f	0x1ff	Not Returned	
17	Base	q	Lowercase q	17	b	c	< 113	0x71	CL
17	Shift	Q	Uppercase q	17	s	c	< 81	0x51	
17	Ctrl	DC1	Device Control 1	17	c	c	< 17	0x11	
17	Alt	PFK	74	17	a	f	0x4a	ESC [ 0 7 4 q	
17	AltGr	Ignore		17	g	f	0x1ff	Not Returned	
18	Base	w	Lowercase w	18	b	c	< 119	0x77	CL
18	Shift	W	Uppercase w	18	s	c	< 87	0x57	
18	Ctrl	ETB	End Trans Block	18	c	c	< 23	0x17	
18	Alt	PFK	75	18	a	f	0x4b	ESC [ 0 7 5 q	
18	AltGr	Ignore		18	g	f	0x1ff	Not Returned	
19	Base	e	Lowercase e	19	b	c	< 101	0x65	CL
19	Shift	E	Uppercase e	19	s	c	< 69	0x45	
19	Ctrl	ENQ	Enquiry	19	c	c	< 5	0x05	
19	Alt	PFK	76	19	a	f	0x4c	ESC [ 0 7 6 q	
19	AltGr	Ignore		19	g	f	0x1ff	Not Returned	
20	Base	r	Lowercase r	20	b	c	< 114	0x72	CL
20	Shift	R	Uppercase r	20	s	c	< 82	0x52	
20	Ctrl	DC2	Device Control 2	20	c	c	< 18	0x12	
20	Alt	PFK	77	20	a	f	0x4d	ESC [ 0 7 7 q	
20	AltGr	Ignore		20	g	f	0x1ff	Not Returned	
21	Base	t	Lowercase t	21	b	c	< 116	0x74	CL
21	Shift	T	Uppercase t	21	s	c	< 84	0x54	
21	Ctrl	DC4	Device Control 4	21	c	c	< 20	0x14	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
21	AltGr	Ignore		21	g	f	0x1ff	Not Returned	
22	Base	y	Lowercase y	22	b	c	< 121	0x79	CL
22	Shift	Y	Uppercase y	22	s	c	< 89	0x59	
22	Ctrl	EM	End of Media	22	c	c	< 25	0x19	
22	Alt	PFK	79	22	a	f	0x4f	ESC [ 0 7 9 q	
22	AltGr	Ignore		22	g	f	0x1ff	Not Returned	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
23	AltGr	Ignore		23	g	f	0x1ff	Not Returned	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	
24	AltGr	Ignore		24	g	f	0x1ff	Not Returned	
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
25	AltGr	Ignore		25	g	f	0x1ff	Not Returned	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
26	AltGr	Ignore		26	g	f	0x1ff	Not Returned	
27	Base	[	Left Bracket	27	b	c	< 91	0x5b	
27	Shift	{	Left Brace	27	s	c	< 123	0x7b	
27	Ctrl	ESC	Escape	27	c	c	< 27	0x1b	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
27	AltGr	Ignore		27	g	f	0x1ff	Not Returned	
28	Base	]	Right Bracket	28	b	c	< 93	0x5d	
28	Shift	}	Right Brace	28	s	c	< 125	0x7d	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
28	Ctrl	SS3	Single Shift 3	28	c	c	< 29	0x1d	
28	Alt	PFK	85	28	a	f	0x55	ESC [ 0 8 5 q	
28	AltGr	Ignore		28	g	f	0x1ff	Not Returned	
29	Not available on keyboard								
30	Base	Caps Lock		None				Not Returned	
30	Shift	Caps Lock		None				Not Returned	
30	Ctrl	Caps Lock		None				Not Returned	
30	Alt	Caps Lock		None				Not Returned	
30	AltGr	Caps Lock		None				Not Returned	
31	Base	a	Lowercase a	31	b	c	< 97	0x61	CL
31	Shift	A	Uppercase a	31	s	c	< 65	0x41	
31	Ctrl	SOH	Start of Header	31	c	c	< 1	0x01	
31	Alt	PFK	87	31	a	f	0x57	ESC [ 0 8 7 q	
31	AltGr	Ignore		31	g	f	0x1ff	Not Returned	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK	88	32	a	f	0x58	ESC [ 0 8 8 q	
32	AltGr	Ignore		32	g	f	0x1ff	Not Returned	
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK	89	33	a	f	0x59	ESC [ 0 8 9 q	
33	AltGr	Ignore		33	g	f	0x1ff	Not Returned	
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK	90	34	a	f	0x5a	ESC [ 0 9 0 q	
34	AltGr	Ignore		34	g	f	0x1ff	Not Returned	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
35	AltGr	Ignore		35	g	f	0x1ff	Not Returned	



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK 92		36	a	f	0x5c	ESC [ 0 9 2 q	
36	AltGr	Ignore		36	g	f	0x1ff	Not Returned	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK 93		37	a	f	0x5d	ESC [ 0 9 3 q	
37	AltGr	Ignore		37	g	f	0x1ff	Not Returned	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK 94		38	a	f	0x5e	ESC [ 0 9 4 q	
38	AltGr	Ignore		38	g	f	0x1ff	Not Returned	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK 95		39	a	f	0x5f	ESC [ 0 9 5 q	
39	AltGr	Ignore		39	g	f	0x1ff	Not Returned	
40	Base	;	Semicolon	40	b	c	< 59	0x3b	
40	Shift	:	Colon	40	s	c	< 58	0x3a	
40	Ctrl	PFK 96		40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK 97		40	a	f	0x61	ESC [ 0 9 7 q	
40	AltGr	Ignore		40	g	f	0x1ff	Not Returned	
41	Base	'	Quote, Apostrophe	41	b	c	< 39	0x27	
41	Shift	@	At Sign	41	s	c	< 64	0x40	
41	Ctrl	PFK 98		41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK 99		41	a	f	0x63	ESC [ 0 9 9 q	
41	AltGr	Ignore		41	g	f	0x1ff	Not Returned	
42	Base	#	Number Sign	42	b	c	< 35	0x23	
42	Shift	~	Tilde Accent	42	s	c	< 126	0x7e	
42	Ctrl	Ignore		42	c	f	0x1ff	Not Returned	
42	Alt	Ignore		42	a	f	0x1ff	Not Returned	
42	AltGr	Ignore		42	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK 100		43	a	f	0x64	ESC [ 1 0 0 q	
43	AltGr	Ignore		43	g	f	0x1ff	Not Returned	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
44	AltGr	Shift (Left)		None				Not Returned	
45	Base	\	Reverse Slash	45	b	c	< 92	0x5c	
45	Shift		Broken Vertical Line	45	s	c	< 221		0xdd
45	Ctrl	SS4	Single Shift 4	45	c	c	< 28	0x1c	
45	Alt	PFK 86		45	a	f	0x56	ESC [ 0 8 6 q	
45	AltGr	Ignore		45	g	f	0x1ff	Not Returned	
46	Base	z	Lowercase z	46	b	c	< 122	0x7a	CL
46	Shift	Z	Uppercase z	46	s	c	< 90	0x5a	
46	Ctrl	SUB	Substitute Char.	46	c	c	< 26	0x1a	
46	Alt	PFK 101		46	a	f	0x65	ESC [ 1 0 1 q	
46	AltGr	Ignore		46	g	f	0x1ff	Not Returned	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK 102		47	a	f	0x66	ESC [ 1 0 2 q	
47	AltGr	Ignore		47	g	f	0x1ff	Not Returned	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of Text	48	c	c	< 3	0x03	
48	Alt	PFK 103		48	a	f	0x67	ESC [ 1 0 3 q	
48	AltGr	Ignore		48	g	f	0x1ff	Not Returned	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK 104		49	a	f	0x68	ESC [ 1 0 4 q	
49	AltGr	Ignore		49	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK 105		50	a	f	0x69	ESC [ 1 0 5 q	
50	AltGr	Ignore		50	g	f	0x1ff	Not Returned	
51	Base	n	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK 106		51	a	f	0x65	ESC [ 1 0 6 q	
51	AltGr	Ignore		51	g	f	0x1ff	Not Returned	
52	Base	m	Lowercase m	52	b	c	< 109	0x6d	CL
52	Shift	M	Uppercase m	52	s	c	< 77	0x4d	
52	Ctrl	CR	Carriage Return	52	c	c	< 13	0x0d	
52	Alt	PFK 107		52	a	f	0x66	ESC [ 1 0 7 q	
52	AltGr	Ignore		52	g	f	0x1ff	Not Returned	
53	Base	,	Comma	53	b	c	< 44	0x2c	
53	Shift	<	Less Than Sign	53	s	c	< 60	0x3c	
53	Ctrl	PFK 108		53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK 109		53	a	f	0x6d	ESC [ 1 0 9 q	
53	AltGr	Ignore		53	g	f	0x1ff	Not Returned	
54	Base	.	Period	54	b	c	< 46	0x2e	
54	Shift	>	Greater Than Sign	54	s	c	< 62	0x3e	
54	Ctrl	PFK 110		54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK 111		54	a	f	0x6f	ESC [ 1 1 1 q	
54	AltGr	Ignore		54	g	f	0x1ff	Not Returned	
55	Base	/	Slash	55	b	c	< 47	0x2f	
55	Shift	?	Question Mark	55	s	c	< 63	0x3f	
55	Ctrl	PFK 112		55	c	f	0x70	ESC [ 1 1 2 q	
55	Alt	PFK 113		55	a	f	0x71	ESC [ 1 1 3 q	
55	AltGr	Ignore		55	g	f	0x1ff	Not Returned	
56	Not available on keyboard								
57	Base	Shift (Right)		None				Not Returned	
57	Shift	Shift (Right)		None				Not Returned	
57	Ctrl	Shift (Right)		None				Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
57	Alt	Shift (Right)	None	Reserved for IBM 5080	
57	AltGr	Shift (Right)	None	Not Returned	
58	Base	Control	None	Not Returned	
58	Shift	Control	None	Not Returned	
58	Ctrl	Control	None	Not Returned	
58	Alt	Control	None	Not Returned	
58	AltGr	Control	None	Not Returned	
59	Not available on keyboard				
60	Base	Alternate Shift	None	Not Returned	
60	Shift	Alternate Shift	None	Not Returned	
60	Ctrl	Alternate Shift	None	Not Returned	
60	Alt	Alternate Shift	None	Not Returned	
60	AltGr	Alternate Shift	None	Not Returned	
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
61	AltGr	Ignore	61 g f 0x1ff	Not Returned	
62	Base	Alternate Graphic Shift	None	Not Returned	
62	Shift	Alternate Graphic Shift	None	Not Returned	
62	Ctrl	Alternate Graphic Shift	None	Not Returned	
62	Alt	Alternate Graphic Shift	None	Not Returned	
62	AltGr	Alternate Graphic Shift	None	Not Returned	
63	Not available on keyboard				
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None	VTRM Previous Window	
64	Ctrl	VTRM Windows Window	None	VTRM Windows Window	
64	Alt	VTRM Next Window	None	VTRM Next Window	
64	AltGr	VTRM Next Window	None	VTRM Next Window	
65 - 74	Not available on keyboard				
75	Base	PFK 139 INS Toggle	75 b f 0x8b	ESC [ 1 3 9 q	
75	Shift	PFK 139 INS Toggle	75 s f 0x8b	ESC [ 1 3 9 q	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes
				nnn	s	t		
75	Ctrl	PFK	140	75	c	f	0x8c	ESC [ 1 4 0 q
75	Alt	PFK	141	75	a	f	0x8d	ESC [ 1 4 1 q
75	AltGr	Ignore		75	g	f	0x1ff	Not Returned
76	Base	DCH	Delete Character	76	b	f	0x151	ESC [ P
76	Shift	DCH	Delete Character	76	s	f	0x151	ESC [ P
76	Ctrl	PFK	142	76	c	f	0x8e	ESC [ 1 4 2 q
76	Alt	DL	Delete Line	76	a	f	0x153	ESC [ M
76	AltGr	Ignore		76	g	f	0x1ff	Not Returned
77	Not available on keyboard							
78	Not available on keyboard							
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q
79	AltGr	Ignore		79	g	f	0x1ff	Not Returned
80	Base	HOME		80	b	f	0x108	ESC [ H
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q
80	AltGr	Ignore		80	g	f	0x1ff	Not Returned
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q
81	AltGr	Ignore		81	g	f	0x1ff	Not Returned
82	Not available on keyboard							
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q
83	AltGr	Ignore		83	g	f	0x1ff	Not Returned

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
84	Base	CUD	Cursor Down	84	b	f	0x102	ESC [ B	
84	Shift	PFK	164	84	s	f	0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK	165	84	c	f	0xa5	ESC [ 1 6 5 q	
84	Alt	PFK	166	84	a	f	0xa6	ESC [ 1 6 6 q	
84	AltGr	Ignore		84	g	f	0x1ff	Not Returned	
85	Base	PFK	150	85	b	f	0x96	ESC [ 1 5 0 q	
85	Shift	PFK	151	85	s	f	0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK	152	85	c	f	0x98	ESC [ 1 5 2 q	
85	Alt	PFK	153	85	a	f	0x99	ESC [ 1 5 3 q	
85	AltGr	Ignore		85	g	f	0x1ff	Not Returned	
86	Base	PFK	154	86	b	f	0x9a	ESC [ 1 5 4 q	
86	Shift	PFK	155	86	s	f	0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK	156	86	c	f	0x9c	ESC [ 1 5 6 q	
86	Alt	PFK	157	86	a	f	0x9d	ESC [ 1 5 7 q	
86	AltGr	Ignore		86	g	f	0x1ff	Not Returned	
87	Not available on keyboard								
88	Not available on keyboard								
89	Base	CUF	Cursor Forward	89	b	f	0x103	ESC [ C	
89	Shift	PFK	167	89	s	f	0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK	168	89	c	f	0xa8	ESC [ 1 6 8 q	
89	Alt	PFK	169	89	a	f	0xa9	ESC [ 1 6 9 q	
89	AltGr	Ignore		89	g	f	0x1ff	Not Returned	
90	Base	NUM LOCK		None				Not Returned	
90	Shift	NUM LOCK		None				Not Returned	
90	Ctrl	DC3	Device Control 3	90	c	c	< 19	0x13	
90	Alt	PFK	170	90	a	f	0xaa	ESC [ 1 7 0 q	
90	AltGr	Ignore		90	g	f	0x1ff	Not Returned	
91	Base	┌	Upper Left Corner	91	b	c	< 218	0xda	
91	Shift	7	Seven	91	s	c	< 55	0x37	
91	Ctrl	PFK	172	91	c	f	0xac	ESC [ 1 7 2 q	
91	Alt	Alt + Num Entry		None				Return at Alt Break	
91	AltGr	Ignore		91	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
92	Base	┐ Left Edge Int.	92	b	c	< 195	0xc3	
92	Shift	4 Four	92	s	c	< 52	0x34	
92	Ctrl	PFK 174	92	c	f	0xae	ESC [ 1 7 4 q	
92	Alt	Alt+Num Entry	None				Return at Alt Break	
92	AltGr	Ignore	92	g	f	0x1ff	Not Returned	
93	Base	└ Lower Left Corner	93	b	c	< 192	0xc0	
93	Shift	1 One	93	s	c	< 49	0x31	
93	Ctrl	PFK 176	93	c	f	0xb0	ESC [ 1 7 6 q	
93	Alt	Alt+Num Entry	None				Return at Alt Break	
93	AltGr	Ignore	93	g	f	0x1ff	Not Returned	
94	Not available on keyboard							
95	Base	/ Slash	95	b	c	< 47	0x2f	
95	Shift	/ Slash	95	s	c	< 47	0x2f	
95	Ctrl	PFK 179	95	c	f	0xb3	ESC [ 1 7 9 q	
95	Alt	PFK 180	95	a	f	0xb4	ESC [ 1 8 0 q	
95	AltGr	Ignore	95	g	f	0x1ff	Not Returned	
96	Base	┘ Top Intersection	96	b	c	< 194	0xc2	
96	Shift	8 Eight	96	s	c	< 56	0x38	
96	Ctrl	PFK 182	96	c	f	0xb6	ESC [ 1 8 2 q	
96	Alt	Alt+Num Entry	None				Return at Alt Break	
96	AltGr	Ignore	96	g	f	0x1ff	Not Returned	
97	Base	├ Center Intersection	97	b	c	< 197	0xc5	
97	Shift	5 Five	97	s	c	< 53	0x35	
97	Ctrl	PFK 184	97	c	f	0xb8	ESC [ 1 8 4 q	
97	Alt	Alt+Num Entry	None				Return at Alt Break	
97	AltGr	Ignore	97	g	f	0x1ff	Not Returned	
98	Base	┘ Bottom Intersection	98	b	c	< 193	0xc1	
98	Shift	2 Two	98	s	c	< 50	0x32	
98	Ctrl	PFK 186	98	c	f	0xba	ESC [ 1 8 6 q	
98	Alt	Alt+Num Entry	None				Return at Alt Break	
98	AltGr	Ignore	98	g	f	0x1ff	Not Returned	
99	Base	Vertical Bar	99	b	c	< 179	0xb3	
99	Shift	0 Zero	99	s	c	< 48	0x30	
99	Ctrl	PFK 178	99	c	f	0xb2	ESC [ 1 7 8 q	

Key Posn.	Shift	Assignment	Keyboard Definition	Returned String	Notes
			nnn s t -----		
99	Alt	Alt+Num Entry	None		Return at Alt Break
99	AltGr	Ignore	99 g f 0x1ff		Not Returned
100	Base	* Asterisk	100 b c < 42		0x2a
100	Shift	* Asterisk	100 s c < 42		0x2a
100	Ctrl	PFK 187	100 c f 0xbb		ESC [ 1 8 7 q
100	Alt	PFK 188	100 a f 0xbc		ESC [ 1 8 8 q
100	AltGr	Ignore	100 g f 0x1ff		Not Returned
101	Base	7 Upper Right Corner	101 b c < 191		0xbf
101	Shift	9 Nine	101 s c < 57		0x39
101	Ctrl	PFK 190	101 c f 0xbe		ESC [ 1 9 0 q
101	Alt	Alt+Num Entry	None		Return at Alt Break
101	AltGr	Ignore	101 g f 0x1ff		Not Returned
102	Base	4 Right Edge Int.	102 b c < 180		0xb4
102	Shift	6 Six	102 s c < 54		0x36
102	Ctrl	PFK 192	102 c f 0xc0		ESC [ 1 9 2 q
102	Alt	Alt+Num Entry	None		Return at Alt Break
102	AltGr	Ignore	102 g f 0x1ff		Not Returned
103	Base	3 Lower Right Corner	103 b c < 217		0xd9
103	Shift	3 Three	103 s c < 51		0x33
103	Ctrl	PFK 194	103 c f 0xc2		ESC [ 1 9 4 q
103	Alt	Alt+Num Entry	None		Return at Alt Break
103	AltGr	Ignore	103 g f 0x1ff		Not Returned
104	Base	- Horizontal Line	104 b c < 196		0xc4
104	Shift	. Period	104 s c < 46		0x2e
104	Ctrl	PFK 196	104 c f 0xc4		ESC [ 1 9 6 q
104	Alt	PFK 197	104 a f 0xc5		ESC [ 1 9 7 q
104	AltGr	Ignore	104 g f 0x1ff		Not Returned
105	Base	- Hyphen, Minus Sign	105 b c < 45		0x2d
105	Shift	- Hyphen, Minus Sign	105 s c < 45		0x2d
105	Ctrl	PFK 198	105 c f 0xc6		ESC [ 1 9 8 q
105	Alt	PFK 199	105 a f 0xc7		ESC [ 1 9 9 q
105	AltGr	Ignore	105 g f 0x1ff		Not Returned
106	Base	+ Plus Sign	106 b c < 43		0x2b
106	Shift	+ Plus Sign	106 s c < 43		0x2b



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
106	AltGr	Ignore		106	g	f	0x1ff	Not Returned	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
108	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
108	AltGr	Ignore		108	g	f	0x1ff	Not Returned	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
110	AltGr	Ignore		110	g	f	0x1ff	Not Returned	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
112	AltGr	Ignore		112	g	f	0x1ff	Not Returned	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
113	AltGr	Ignore		113	g	f	0x1ff	Not Returned	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
114	AltGr	Ignore		114	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment	Keyboard nnn	s	t	-----	Returned String	Notes
115	Base	PFK 4	115	b	f	0x04	ESC [ 0 0 4 q	
115	Shift	PFK 16	115	s	f	0x10	ESC [ 0 1 6 q	
115	Ctrl	PFK 28	115	c	f	0x1c	ESC [ 0 2 8 q	
115	Alt	PFK 40	115	a	f	0x28	ESC [ 0 4 0 q	
115	AltGr	Ignore	115	g	f	0x1ff	Not Returned	
116	Base	PFK 5	116	b	f	0x05	ESC [ 0 0 5 q	
116	Shift	PFK 17	116	s	f	0x11	ESC [ 0 1 7 q	
116	Ctrl	PFK 29	116	c	f	0x1d	ESC [ 0 2 9 q	
116	Alt	PFK 41	116	a	f	0x29	ESC [ 0 4 1 q	
116	AltGr	Ignore	116	g	f	0x1ff	Not Returned	
117	Base	PFK 6	117	b	f	0x06	ESC [ 0 0 6 q	
117	Shift	PFK 18	117	s	f	0x12	ESC [ 0 1 8 q	
117	Ctrl	PFK 30	117	c	f	0x1e	ESC [ 0 3 0 q	
117	Alt	PFK 42	117	a	f	0x2a	ESC [ 0 4 2 q	
117	AltGr	Ignore	117	g	f	0x1ff	Not Returned	
118	Base	PFK 7	118	b	f	0x07	ESC [ 0 0 7 q	
118	Shift	PFK 19	118	s	f	0x13	ESC [ 0 1 9 q	
118	Ctrl	PFK 31	118	c	f	0x1f	ESC [ 0 3 1 q	
118	Alt	PFK 43	118	a	f	0x2b	ESC [ 0 4 3 q	
118	AltGr	Ignore	118	g	f	0x1ff	Not Returned	
119	Base	PFK 8	119	b	f	0x08	ESC [ 0 0 8 q	
119	Shift	PFK 20	119	s	f	0x14	ESC [ 0 2 0 q	
119	Ctrl	PFK 32	119	c	f	0x20	ESC [ 0 3 2 q	
119	Alt	PFK 44	119	a	f	0x2c	ESC [ 0 4 4 q	
119	AltGr	Ignore	119	g	f	0x1ff	Not Returned	
120	Base	PFK 9	120	b	f	0x09	ESC [ 0 0 9 q	
120	Shift	PFK 21	120	s	f	0x15	ESC [ 0 2 1 q	
120	Ctrl	PFK 33	120	c	f	0x21	ESC [ 0 3 3 q	
120	Alt	PFK 45	120	a	f	0x2d	ESC [ 0 4 5 q	
120	AltGr	Ignore	120	g	f	0x1ff	Not Returned	
121	Base	PFK 10	121	b	f	0x0a	ESC [ 0 1 0 q	
121	Shift	PFK 22	121	s	f	0x16	ESC [ 0 2 2 q	
121	Ctrl	PFK 34	121	c	f	0x22	ESC [ 0 3 4 q	
121	Alt	PFK 46	121	a	f	0x2e	ESC [ 0 4 6 q	
121	AltGr	Ignore	121	g	f	0x1ff	Not Returned	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q	
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q	
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q	
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q	
122	AltGr	Ignore		122	g	f	0x1ff	Not Returned	
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q	
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q	
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q	
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q	
123	AltGr	Ignore		123	g	f	0x1ff	Not Returned	
124	Base	PFK	209	124	b	f	0xd1	ESC [ 2 0 9 q	
124	Shift	PFK	210	124	s	f	0xd2	ESC [ 2 1 0 q	
124	Ctrl	PFK	211	124	c	f	0xd3	ESC [ 2 1 1 q	
124	Alt	PFK	212	124	a	f	0xd4	ESC [ 2 1 2 q	
124	AltGr	Ignore		124	g	f	0x1ff	Not Returned	
125	Base	PFK	213	125	b	f	0xd5	ESC [ 2 1 3 q	
125	Shift	PFK	214	125	s	f	0xd6	ESC [ 2 1 4 q	
125	Ctrl	PFK	215	125	c	f	0xd7	ESC [ 2 1 5 q	
125	Alt	PFK	216	125	a	f	0xd8	ESC [ 2 1 6 q	
125	AltGr	Ignore		125	g	f	0x1ff	Not Returned	
126	Base	PFK	217	126	b	f	0xd9	ESC [ 2 1 7 q	
126	Shift	PFK	218	126	s	f	0xda	ESC [ 2 1 8 q	
126	Ctrl	DEL		126	c	c	< 127	0x7f	
126	Alt	DEL		126	a	c	< 127	0x7f	
126	AltGr	Ignore		126	g	f	0x1ff	Not Returned	

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# Appendix R. US English Keyboard Layout and Table

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This appendix contains the keyboard layout and keyboard table information for the US English keyboard.

The listing below:

1. Specifies the key assignments to be used on the keyboards.
2. Indicates the symbol that is engraved on the key.
3. Gives the character sequences that are to be produced by the Virtual Terminal Mode Processor (VTMP).

Refer to the following listing for the meanings of the column headings:

**Key Posn** – Keyboard key position.

**Shift** – The shift state of the position: Base, Shift, Ctrl, or Alt.

**Assignment** – The character or control assigned to that key.

**Keyboard Definition** – Provides information that would have to be sent as part of a keyboard definition set structure. The information here is provided only for the individual key definitions. Within the table, interpret the fields as follows:

**nnn** – One-byte key position number being defined.

**s** – Shift state being defined. Bits 1-3 should be set to:

**b (base)** – No **Shift** key is pressed.

**s (shift)** – Either left or right **Shift** key is pressed.

**c (control)** – **Ctrl** key is pressed.

**a (alt)** – **Alt** key is pressed.

**t** – Type of definition. Coded in bits 4-7 of the byte and can take the following forms:

**c** – Escaping character definition, followed by a 1-byte code set identifier and a 1-byte code point specification. The code set identifiers are:

< for Code Page P0

= for Code Page P1

> for Code Page P2

This identifier is followed by a 1-byte code point identifier, given in the table as a decimal number.

**f** – Function specification, followed by a 2-byte (16-bit) function identifier, which is specified in the table as a hexadecimal value.

**s** – String specification, followed by a 1-byte (8-bit) code page identifier, a 1-byte (8-bit) string length and the 1-byte code point identifiers within the

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specified code page. No string specifications are included in the default keyboard layouts.

**d** – Dead character definition, followed by a 1-byte (8-bit) code set identifier and a 1-byte code point specification. The code set identifiers are as described for character definition. This is followed by a 1-byte code point identifier, given in the table as a decimal number.

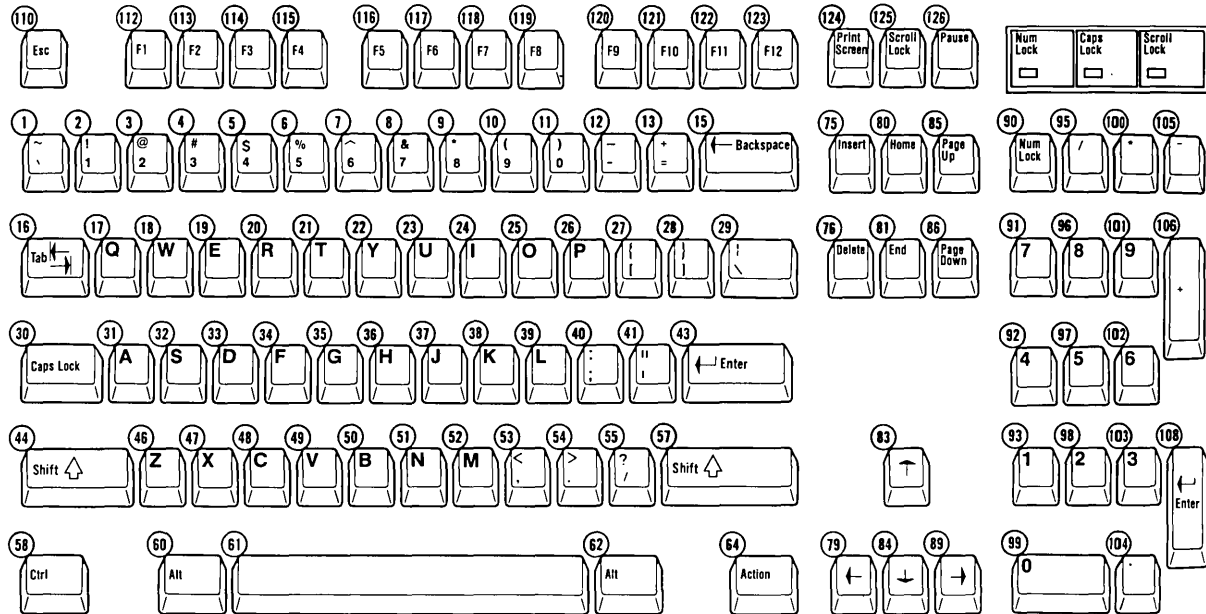
**Returned String** – Specifies the data that is returned to the program that is reading the keyboard.

**Notes** – Specifies additional information. Entries in this column include:

- **CL** – This key is affected by **Caps Lock**.
- **DK** – This key is a dead character on this key state.
- **P1** – This key is a character from Code Page P1.
- **P2** – This key is a character from Code Page P2.

The **Alt** key, followed by one or more numbered keys on the numeric pad, will return a single character which has the value entered on the numeric pad. The value accumulates while the Alt key is held down and returns when that key is released. Only escaping character codes and single-byte controls are produced by this method.

# US English Keyboard Layout



## US English Keyboard Table

Key Posn.	Shift	Assignment	Keyboard Definition n n n s t -----	Returned String	Notes
1	Base	`	Grave Accent	1 b c < 96	0x60
1	Shift	~	Tilde Accent	1 s c < 126	0x7e
1	Ctrl	PFK 57		1 c f 0x39	ESC [ 0 5 7 q
1	Alt	PFK 115		1 a f 0x73	ESC [ 1 1 5 q
2	Base	1	One	2 b c < 49	0x31
2	Shift	!	Exclamation Point	2 s c < 33	0x21
2	Ctrl	PFK 49		2 c f 0x31	ESC [ 0 4 9 q
2	Alt	PFK 58		2 a f 0x3a	ESC [ 0 5 8 q
3	Base	2	Two	3 b c < 50	0x32
3	Shift	@	At Sign	3 s c < 64	0x40
3	Ctrl	NUL	Null	3 c c < 0	0x00
3	Alt	PFK 59		3 a f 0x3b	ESC [ 0 5 9 q
4	Base	3	Three	4 b c < 51	0x33
4	Shift	#	Number Sign	4 s c < 35	0x23
4	Ctrl	PFK 50		4 c f 0x32	ESC [ 0 5 0 q
4	Alt	PFK 60		4 a f 0x3c	ESC [ 0 6 0 q
5	Base	4	Four	5 b c < 52	0x34
5	Shift	\$	Dollar Sign	5 s c < 36	0x24
5	Ctrl	PFK 51		5 c f 0x33	ESC [ 0 5 1 q
5	Alt	PFK 61		5 a f 0x3d	ESC [ 0 6 1 q
6	Base	5	Five	6 b c < 53	0x35
6	Shift	%	Percent Sign	6 s c < 37	0x25
6	Ctrl	PFK 52		6 c f 0x34	ESC [ 0 5 2 q
6	Alt	PFK 62		6 a f 0x3e	ESC [ 0 6 2 q
7	Base	6	Six	7 b c < 54	0x36
7	Shift	^	Circumflex Accent	7 s c < 94	0x5e
7	Ctrl	SS2	Single Shift 2	7 c c < 30	0x1e
7	Alt	PFK 63		7 a f 0x3f	ESC [ 0 6 3 q
8	Base	7	Seven	8 b c < 55	0x37
8	Shift	&	Ampersand	8 s c < 38	0x26



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
8	Ctrl	PFK	53	8	c	f	0x35	ESC [ 0 5 3 q	
8	Alt	PFK	64	8	a	f	0x40	ESC [ 0 6 4 q	
9	Base	8	Eight	9	b	c	< 56	0x38	
9	Shift	*	Asterisk	9	s	c	< 42	0x2a	
9	Ctrl	PFK	54	9	c	f	0x36	ESC [ 0 5 4 q	
9	Alt	PFK	65	9	a	f	0x41	ESC [ 0 6 5 q	
10	Base	9	Nine	10	b	c	< 57	0x39	
10	Shift	(	Left Parenthesis	10	s	c	< 40	0x28	
10	Ctrl	PFK	55	10	c	f	0x37	ESC [ 0 5 5 q	
10	Alt	PFK	66	10	a	f	0x42	ESC [ 0 6 6 q	
11	Base	0	Zero	11	b	c	< 48	0x30	
11	Shift	)	Right Parenthesis	11	s	c	< 41	0x29	
11	Ctrl	PFK	56	11	c	f	0x38	ESC [ 0 5 6 q	
11	Alt	PFK	67	11	a	f	0x43	ESC [ 0 6 7 q	
12	Base	-	Hyphen	12	b	c	< 45	0x2d	
12	Shift	_	Underscore	12	s	c	< 95	0x5f	
12	Ctrl	SS1	Single Shift 1	12	c	c	< 31	0x1f	
12	Alt	PFK	68	12	a	f	0x44	ESC [ 0 6 8 q	
13	Base	=	Equal Sign	13	b	c	< 61	0x3d	
13	Shift	+	Plus Sign	13	s	c	< 43	0x2b	
13	Ctrl	PFK	69	13	c	f	0x45	ESC [ 0 6 9 q	
13	Alt	PFK	70	13	a	f	0x46	ESC [ 0 7 0 q	
14	Not available on keyboard								
15	Base	BS	Back Space	15	b	c	< 8	0x08	
15	Shift	BS	Back Space	15	s	c	< 8	0x08	
15	Ctrl	DEL	Delete	15	c	c	< 127	0x7f	
15	Alt	PFK	71	15	a	f	0x47	ESC [ 0 7 1 q	
16	Base	HT	Horizontal Tab	16	b	c	< 9	0x09	
16	Shift	CBT	Cursor Back Tab	16	s	f	0x105	ESC [ Z	
16	Ctrl	PFK	72	16	c	f	0x48	ESC [ 0 7 2 q	
16	Alt	PFK	73	16	a	f	0x49	ESC [ 0 7 3 q	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes	
			nnn	s	t	-----			
17	Base	q	Lowercase q	17	b	c	< 113	0x71	CL
17	Shift	Q	Uppercase q	17	s	c	< 81	0x51	
17	Ctrl	DC1	Device Control 1	17	c	c	< 17	0x11	
17	Alt	PFK	74	17	a	f	0x4a	ESC [ 0 7 4 q	
18	Base	w	Lowercase w	18	b	c	< 119	0x77	CL
18	Shift	W	Uppercase w	18	s	c	< 87	0x57	
18	Ctrl	ETB	End Trans Block	18	c	c	< 23	0x17	
18	Alt	PFK	75	18	a	f	0x4b	ESC [ 0 7 5 q	
19	Base	e	Lowercase e	19	b	c	< 101	0x65	CL
19	Shift	E	Uppercase e	19	s	c	< 69	0x45	
19	Ctrl	ENQ	Enquiry	19	c	c	< 5	0x05	
19	Alt	PFK	76	19	a	f	0x4c	ESC [ 0 7 6 q	
20	Base	r	Lowercase r	20	b	c	< 114	0x72	CL
20	Shift	R	Uppercase r	20	s	c	< 82	0x52	
20	Ctrl	DC2	Device Control 2	20	c	c	< 18	0x12	
20	Alt	PFK	77	20	a	f	0x4d	ESC [ 0 7 7 q	
21	Base	t	Lowercase t	21	b	c	< 116	0x74	CL
21	Shift	T	Uppercase t	21	s	c	< 84	0x54	
21	Ctrl	DC4	Device Control 4	21	c	c	< 20	0x14	
21	Alt	PFK	78	21	a	f	0x4e	ESC [ 0 7 8 q	
22	Base	y	Lowercase y	22	b	c	< 121	0x79	CL
22	Shift	Y	Uppercase y	22	s	c	< 89	0x59	
22	Ctrl	EM	End of Media	22	c	c	< 25	0x19	
22	Alt	PFK	79	22	a	f	0x4f	ESC [ 0 7 9 q	
23	Base	u	Lowercase u	23	b	c	< 117	0x75	CL
23	Shift	U	Uppercase u	23	s	c	< 85	0x55	
23	Ctrl	NAK	Not Acknowledge	23	c	c	< 21	0x15	
23	Alt	PFK	80	23	a	f	0x50	ESC [ 0 8 0 q	
24	Base	i	Lowercase i	24	b	c	< 105	0x69	CL
24	Shift	I	Uppercase i	24	s	c	< 73	0x49	
24	Ctrl	HT	Horizontal Tab	24	c	c	< 9	0x09	
24	Alt	PFK	81	24	a	f	0x51	ESC [ 0 8 1 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
25	Base	o	Lowercase o	25	b	c	< 111	0x6f	CL
25	Shift	O	Uppercase o	25	s	c	< 79	0x4f	
25	Ctrl	SI	Shift In	25	c	c	< 15	0x0f	
25	Alt	PFK	82	25	a	f	0x52	ESC [ 0 8 2 q	
26	Base	p	Lowercase p	26	b	c	< 112	0x70	CL
26	Shift	P	Uppercase p	26	s	c	< 80	0x50	
26	Ctrl	DLE	Data Link Enabl	26	c	c	< 16	0x10	
26	Alt	PFK	83	26	a	f	0x53	ESC [ 0 8 3 q	
27	Base	[	Left Bracket	27	b	c	< 91	0x5b	
27	Shift	{	Left Brace	27	s	c	< 123	0x7b	
27	Ctrl	ESC	Escape	27	c	c	< 27	0x1b	
27	Alt	PFK	84	27	a	f	0x54	ESC [ 0 8 4 q	
28	Base	]	Right Bracket	28	b	c	< 93	0x5d	
28	Shift	}	Right Brace	28	s	c	< 125	0x7d	
28	Ctrl	SS3	Single Shift 3	28	c	c	< 29	0x1d	
28	Alt	PFK	85	28	a	f	0x55	ESC [ 0 8 5 q	
29	Base	\	Reverse Slash	29	b	c	< 92	0x5c	
29	Shift		Pipe Symbol	29	s	c	< 124	0x7c	
29	Ctrl	SS4	Single Shift 4	29	c	c	< 28	0x1c	
29	Alt	PFK	86	29	a	f	0x56	ESC [ 0 8 6 q	
30	Base	Caps Lock		None				Not Returned	
30	Shift	Caps Lock		None				Not Returned	
30	Ctrl	Caps Lock		None				Not Returned	
30	Alt	Caps Lock		None				Not Returned	
31	Base	a	Lowercase a	31	b	c	< 97	0x61	CL
31	Shift	A	Uppercase a	31	s	c	< 65	0x41	
31	Ctrl	SOH	Start of Header	31	c	c	< 1	0x01	
31	Alt	PFK	87	31	a	f	0x57	ESC [ 0 8 7 q	
32	Base	s	Lowercase s	32	b	c	< 115	0x73	CL
32	Shift	S	Uppercase s	32	s	c	< 83	0x53	
32	Ctrl	DC3	Device Control 3	32	c	c	< 19	0x13	
32	Alt	PFK	88	32	a	f	0x58	ESC [ 0 8 8 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
33	Base	d	Lowercase d	33	b	c	< 100	0x64	CL
33	Shift	D	Uppercase d	33	s	c	< 68	0x44	
33	Ctrl	EOT	End of Transmission	33	c	c	< 4	0x04	
33	Alt	PFK	89	33	a	f	0x59	ESC [ 0 8 9 q	
34	Base	f	Lowercase f	34	b	c	< 102	0x66	CL
34	Shift	F	Uppercase f	34	s	c	< 70	0x46	
34	Ctrl	ACK	Acknowledge	34	c	c	< 6	0x06	
34	Alt	PFK	90	34	a	f	0x5a	ESC [ 0 9 0 q	
35	Base	g	Lowercase g	35	b	c	< 103	0x67	CL
35	Shift	G	Uppercase g	35	s	c	< 71	0x47	
35	Ctrl	BEL	Bell	35	c	c	< 7	0x07	
35	Alt	PFK	91	35	a	f	0x5b	ESC [ 0 9 1 q	
36	Base	h	Lowercase h	36	b	c	< 104	0x68	CL
36	Shift	H	Uppercase h	36	s	c	< 72	0x48	
36	Ctrl	BS	Backspace	36	c	c	< 8	0x08	
36	Alt	PFK	92	36	a	f	0x5c	ESC [ 0 9 2 q	
37	Base	j	Lowercase j	37	b	c	< 106	0x6a	CL
37	Shift	J	Uppercase j	37	s	c	< 74	0x4a	
37	Ctrl	LF	Line Feed	37	c	c	< 10	0x0a	
37	Alt	PFK	93	37	a	f	0x5d	ESC [ 0 9 3 q	
38	Base	k	Lowercase k	38	b	c	< 107	0x6b	CL
38	Shift	K	Uppercase k	38	s	c	< 75	0x4b	
38	Ctrl	VT	Vertical Tab	38	c	c	< 11	0x0b	
38	Alt	PFK	94	38	a	f	0x5e	ESC [ 0 9 4 q	
39	Base	l	Lowercase l	39	b	c	< 108	0x6c	CL
39	Shift	L	Uppercase l	39	s	c	< 76	0x4c	
39	Ctrl	FF	Form Feed	39	c	c	< 12	0x0c	
39	Alt	PFK	95	39	a	f	0x5f	ESC [ 0 9 5 q	
40	Base	;	Semicolon	40	b	c	< 59	0x3b	
40	Shift	:	Colon	40	s	c	< 58	0x3a	
40	Ctrl	PFK	96	40	c	f	0x60	ESC [ 0 9 6 q	
40	Alt	PFK	97	40	a	f	0x61	ESC [ 0 9 7 q	

Key Posn.	Shift	Assignment		Keyboard Definition			Returned String	Notes	
				nnn	s	t			-----
41	Base	'	Quote, Apostrophe	41	b	c	< 39	0x27	
41	Shift	"	Double Quote	41	s	c	< 34	0x22	
41	Ctrl	PFK	98	41	c	f	0x62	ESC [ 0 9 8 q	
41	Alt	PFK	99	41	a	f	0x63	ESC [ 0 9 9 q	
42	Not available on keyboard								
43	Base	CR	Carriage Return	43	b	c	< 13	0x0d	
43	Shift	CR	Carriage Return	43	s	c	< 13	0x0d	
43	Ctrl	CR	Carriage Return	43	c	c	< 13	0x0d	
43	Alt	PFK	100	43	a	f	0x64	ESC [ 1 0 0 q	
44	Base	Shift (Left)		None				Not Returned	
44	Shift	Shift (Left)		None				Not Returned	
44	Ctrl	Shift (Left)		None				Not Returned	
44	Alt	Shift (Left)		None				Reserved for IBM 5080	
45	Not available on keyboard								
46	Base	z	Lowercase z	46	b	c	< 122	0x7a	CL
46	Shift	Z	Uppercase z	46	s	c	< 90	0x5a	
46	Ctrl	SUB	Substitute Char.	46	c	c	< 26	0x1a	
46	Alt	PFK	101	46	a	f	0x65	ESC [ 1 0 1 q	
47	Base	x	Lowercase x	47	b	c	< 120	0x78	CL
47	Shift	X	Uppercase x	47	s	c	< 88	0x58	
47	Ctrl	CAN	Cancel	47	c	c	< 24	0x18	
47	Alt	PFK	102	47	a	f	0x66	ESC [ 1 0 2 q	
48	Base	c	Lowercase c	48	b	c	< 99	0x63	CL
48	Shift	C	Uppercase c	48	s	c	< 67	0x43	
48	Ctrl	ETX	End of Text	48	c	c	< 3	0x03	
48	Alt	PFK	103	48	a	f	0x67	ESC [ 1 0 3 q	
49	Base	v	Lowercase v	49	b	c	< 118	0x76	CL
49	Shift	V	Uppercase v	49	s	c	< 86	0x56	
49	Ctrl	SYN	Synch Idle	49	c	c	< 22	0x16	
49	Alt	PFK	104	49	a	f	0x68	ESC [ 1 0 4 q	
50	Base	b	Lowercase b	50	b	c	< 98	0x62	CL
50	Shift	B	Uppercase b	50	s	c	< 66	0x42	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
50	Ctrl	STX	Start of Text	50	c	c	< 2	0x02	
50	Alt	PFK	105	50	a	f	0x69	ESC [ 1 0 5 q	
51	Base	n	Lowercase n	51	b	c	< 110	0x6e	CL
51	Shift	N	Uppercase n	51	s	c	< 78	0x4e	
51	Ctrl	SO	Shift Out	51	c	c	< 14	0x0e	
51	Alt	PFK	106	51	a	f	0x65	ESC [ 1 0 6 q	
52	Base	m	Lowercase m	52	b	c	< 109	0x6d	CL
52	Shift	M	Uppercase m	52	s	c	< 77	0x4d	
52	Ctrl	CR	Carriage Return	52	c	c	< 13	0x0d	
52	Alt	PFK	107	52	a	f	0x66	ESC [ 1 0 7 q	
53	Base	,	Comma	53	b	c	< 44	0x2c	
53	Shift	<	Less Than Sign	53	s	c	< 60	0x3c	
53	Ctrl	PFK	108	53	c	f	0x6c	ESC [ 1 0 8 q	
53	Alt	PFK	109	53	a	f	0x6d	ESC [ 1 0 9 q	
54	Base	.	Period	54	b	c	< 46	0x2e	
54	Shift	>	Greater Than Sign	54	s	c	< 62	0x3e	
54	Ctrl	PFK	110	54	c	f	0x6e	ESC [ 1 1 0 q	
54	Alt	PFK	111	54	a	f	0x6f	ESC [ 1 1 1 q	
55	Base	/	Slash	55	b	c	< 47	0x2f	
55	Shift	?	Question Mark	55	s	c	< 63	0x3f	
55	Ctrl	PFK	112	55	c	f	0x70	ESC [ 1 1 2 q	
55	Alt	PFK	113	55	a	f	0x71	ESC [ 1 1 3 q	
56	Not available on keyboard								
57	Base	Shift (Right)		None				Not Returned	
57	Shift	Shift (Right)		None				Not Returned	
57	Ctrl	Shift (Right)		None				Not Returned	
57	Alt	Shift (Right)		None				Reserved for IBM 5080	
58	Base	Control		None				Not Returned	
58	Shift	Control		None				Not Returned	
58	Ctrl	Control		None				Not Returned	
58	Alt	Control		None				Not Returned	

Key Posn.	Shift	Assignment	Keyboard Definition nnn s t -----	Returned String	Notes
59		Not available on keyboard			
60	Base	Alternate Shift	None	Not Returned	
60	Shift	Alternate Shift	None	Not Returned	
60	Ctrl	Alternate Shift	None	Not Returned	
60	Alt	Alternate Shift	None	Not Returned	
61	Base	SP Space	61 b c < 32	0x20	
61	Shift	SP Space	61 s c < 32	0x20	
61	Ctrl	SP Space	61 c c < 32	0x20	
61	Alt	SP Space	61 a c < 32	0x20	
62	Base	Alternate Graphic Shift	None	Not Returned	
62	Shift	Alternate Graphic Shift	None	Not Returned	
62	Ctrl	Alternate Graphic Shift	None	Not Returned	
62	Alt	Alternate Graphic Shift	None	Not Returned	
63		Not available on keyboard			
64	Base	PFK 114	64 b f 0x72	ESC [ 1 1 4 q	
64	Shift	VTRM Previous Window	None	VTRM Previous Window	
64	Ctrl	VTRM Windows Window	None	VTRM Windows Window	
64	Alt	VTRM Next Window	None	VTRM Next Window	
65 - 74		Not available on keyboard			
75	Base	PFK 139 INS Toggle	75 b f 0x8b	ESC [ 1 3 9 q	
75	Shift	PFK 139 INS Toggle	75 s f 0x8b	ESC [ 1 3 9 q	
75	Ctrl	PFK 140	75 c f 0x8c	ESC [ 1 4 0 q	
75	Alt	PFK 141	75 a f 0x8d	ESC [ 1 4 1 q	
76	Base	DCH Delate Character	76 b f 0x151	ESC [ P	
76	Shift	DCH Delate Character	76 s f 0x151	ESC [ P	
76	Ctrl	PFK 142	76 c f 0x8e	ESC [ 1 4 2 q	
76	Alt	DL Delete Line	76 a f 0x153	ESC [ M	
77		Not available on keyboard			
78		Not available on keyboard			

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
79	Base	CUB	Cursor Back	79	b	f	0x104	ESC [ D	
79	Shift	PFK	158	79	s	f	0x9e	ESC [ 1 5 8 q	
79	Ctrl	PFK	159	79	c	f	0x9f	ESC [ 1 5 9 q	
79	Alt	PFK	160	79	a	f	0xa0	ESC [ 1 6 0 q	
80	Base	HOME		80	b	f	0x108	ESC [ H	
80	Shift	PFK	143	80	s	f	0x8f	ESC [ 1 4 3 q	
80	Ctrl	PFK	144	80	c	f	0x90	ESC [ 1 4 4 q	
80	Alt	PFK	145	80	a	f	0x91	ESC [ 1 4 5 q	
81	Base	PFK	146	81	b	f	0x92	ESC [ 1 4 6 q	
81	Shift	PFK	147	81	s	f	0x93	ESC [ 1 4 7 q	
81	Ctrl	PFK	148	81	c	f	0x94	ESC [ 1 4 8 q	
81	Alt	PFK	149	81	a	f	0x95	ESC [ 1 4 9 q	
82	Not available on keyboard								
83	Base	CUU	Cursor Up	83	b	f	0x101	ESC [ A	
83	Shift	PFK	161	83	s	f	0xa1	ESC [ 1 6 1 q	
83	Ctrl	PFK	162	83	c	f	0xa2	ESC [ 1 6 2 q	
83	Alt	PFK	163	83	a	f	0xa3	ESC [ 1 6 3 q	
84	Base	CUD	Cursor Down	84	b	f	0x102	ESC [ B	
84	Shift	PFK	164	84	s	f	0xa4	ESC [ 1 6 4 q	
84	Ctrl	PFK	165	84	c	f	0xa5	ESC [ 1 6 5 q	
84	Alt	PFK	166	84	a	f	0xa6	ESC [ 1 6 6 q	
85	Base	PFK	150	85	b	f	0x96	ESC [ 1 5 0 q	
85	Shift	PFK	151	85	s	f	0x97	ESC [ 1 5 1 q	
85	Ctrl	PFK	152	85	c	f	0x98	ESC [ 1 5 2 q	
85	Alt	PFK	153	85	a	f	0x99	ESC [ 1 5 3 q	
86	Base	PFK	154	86	b	f	0x9a	ESC [ 1 5 4 q	
86	Shift	PFK	155	86	s	f	0x9b	ESC [ 1 5 5 q	
86	Ctrl	PFK	156	86	c	f	0x9c	ESC [ 1 5 6 q	
86	Alt	PFK	157	86	a	f	0x9d	ESC [ 1 5 7 q	
87	Not available on keyboard								
88	Not available on keyboard								



Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
89	Base	CUF	Cursor Forward	89	b	f	0x103	ESC [ C	
89	Shift	PFK	167	89	s	f	0xa7	ESC [ 1 6 7 q	
89	Ctrl	PFK	168	89	c	f	0xa8	ESC [ 1 6 8 q	
89	Alt	PFK	169	89	a	f	0xa9	ESC [ 1 6 9 q	
90	Base	NUM LOCK		None				Not Returned	
90	Shift	NUM LOCK		None				Not Returned	
90	Ctrl	DC3	Device Control 3	90	c	c	< 19	0x13	
90	Alt	PFK	170	90	a	f	0xaa	ESC [ 1 7 0 q	
91	Base	┌	Upper Left Corner	91	b	c	< 218	0xda	
91	Shift	7	Seven	91	s	c	< 55	0x37	
91	Ctrl	PFK	172	91	c	f	0xac	ESC [ 1 7 2 q	
91	Alt	Alt+Num Entry		None				Return at Alt Break	
92	Base	└	Left Edge Int.	92	b	c	< 195	0xc3	
92	Shift	4	Four	92	s	c	< 52	0x34	
92	Ctrl	PFK	174	92	c	f	0xae	ESC [ 1 7 4 q	
92	Alt	Alt+Num Entry		None				Return at Alt Break	
93	Base	└	Lower Left Corner	93	b	c	< 192	0xc0	
93	Shift	1	One	93	s	c	< 49	0x31	
93	Ctrl	PFK	176	93	c	f	0xb0	ESC [ 1 7 6 q	
93	Alt	Alt+Num Entry		None				Return at Alt Break	
94	Not available on keyboard								
95	Base	/	Slash	95	b	c	< 47	0x2f	
95	Shift	/	Slash	95	s	c	< 47	0x2f	
95	Ctrl	PFK	179	95	c	f	0xb3	ESC [ 1 7 9 q	
95	Alt	PFK	180	95	a	f	0xb4	ESC [ 1 8 0 q	
96	Base	┘	Top Intersection	96	b	c	< 194	0xc2	
96	Shift	8	Eight	96	s	c	< 56	0x38	
96	Ctrl	PFK	182	96	c	f	0xb6	ESC [ 1 8 2 q	
96	Alt	Alt+Num Entry		None				Return at Alt Break	
97	Base	┘	Center Intersection	97	b	c	< 197	0xc5	
97	Shift	5	Five	97	s	c	< 53	0x35	
97	Ctrl	PFK	184	97	c	f	0xb8	ESC [ 1 8 4 q	
97	Alt	Alt+Num Entry		None				Return at Alt Break	

Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
98	Base	└ Bottom Junction	98	b	c	< 193	0xc1	
98	Shift	2 Two	98	s	c	< 50	0x32	
98	Ctrl	PFK 186	98	c	f	0xba	ESC [ 1 8 6 q	
98	Alt	Alt+Num Entry	None				Return at Alt Break	
99	Base	Vertical Bar	99	b	c	< 179	0xb3	
99	Shift	0 Zero	99	s	c	< 48	0x30	
99	Ctrl	PFK 178	99	c	f	0xb2	ESC [ 1 7 8 q	
99	Alt	Alt+Num Entry	None				Return at Alt Break	
100	Base	* Asterisk	100	b	c	< 42	0x2a	
100	Shift	* Asterisk	100	s	c	< 42	0x2a	
100	Ctrl	PFK 187	100	c	f	0xbb	ESC [ 1 8 7 q	
100	Alt	PFK 188	100	a	f	0xbc	ESC [ 1 8 8 q	
101	Base	┐ Upper Right Corner	101	b	c	< 191	0xbf	
101	Shift	9 Nine	101	s	c	< 57	0x39	
101	Ctrl	PFK 190	101	c	f	0xbe	ESC [ 1 9 0 q	
101	Alt	Alt+Num Entry	None				Return at Alt Break	
102	Base	┘ Right Edge Int.	102	b	c	< 180	0xb4	
102	Shift	6 Six	102	s	c	< 54	0x36	
102	Ctrl	PFK 192	102	c	f	0xc0	ESC [ 1 9 2 q	
102	Alt	Alt+Num Entry	None				Return at Alt Break	
103	Base	┘ Lower Right Corner	103	b	c	< 217	0xd9	
103	Shift	3 Three	103	s	c	< 51	0x33	
103	Ctrl	PFK 194	103	c	f	0xc2	ESC [ 1 9 4 q	
103	Alt	Alt+Num Entry	None				Return at Alt Break	
104	Base	- Horizontal Line	104	b	c	< 196	0xc4	
104	Shift	. Period	104	s	c	< 46	0x2e	
104	Ctrl	PFK 196	104	c	f	0xc4	ESC [ 1 9 6 q	
104	Alt	PFK 197	104	a	f	0xc5	ESC [ 1 9 7 q	
105	Base	- Hyphen, Minus Sign	105	b	c	< 45	0x2d	
105	Shift	- Hyphen, Minus Sign	105	s	c	< 45	0x2d	
105	Ctrl	PFK 198	105	c	f	0xc6	ESC [ 1 9 8 q	
105	Alt	PFK 199	105	a	f	0xc7	ESC [ 1 9 9 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
106	Base	+	Plus Sign	106	b	c	< 43	0x2b	
106	Shift	+	Plus Sign	106	s	c	< 43	0x2b	
106	Ctrl	PFK	200	106	c	f	0xc8	ESC [ 2 0 0 q	
106	Alt	PFK	201	106	a	f	0xc9	ESC [ 2 0 1 q	
107	Not available on keyboard								
108	Base	CR	Carriage Return	108	b	c	< 13	0x0d	
108	Shift	CR	Carriage Return	108	s	c	< 13	0x0d	
108	Ctrl	CR	Carriage Return	108	c	c	< 13	0x0d	
108	Alt	PFK	100	108	a	f	0x64	ESC [ 1 0 0 q	
109	Not available on keyboard								
110	Base	ESC	Escape	110	b	c	< 27	0x1b	
110	Shift	PFK	120	110	s	f	0x78	ESC [ 1 2 0 q	
110	Ctrl	PFK	121	110	c	f	0x79	ESC [ 1 2 1 q	
110	Alt	PFK	122	110	a	f	0x7a	ESC [ 1 2 2 q	
111	Not available on keyboard								
112	Base	PFK	1	112	b	f	0x01	ESC [ 0 0 1 q	
112	Shift	PFK	13	112	s	f	0x0d	ESC [ 0 1 3 q	
112	Ctrl	PFK	25	112	c	f	0x19	ESC [ 0 2 5 q	
112	Alt	PFK	37	112	a	f	0x25	ESC [ 0 3 7 q	
113	Base	PFK	2	113	b	f	0x02	ESC [ 0 0 2 q	
113	Shift	PFK	14	113	s	f	0x0e	ESC [ 0 1 4 q	
113	Ctrl	PFK	26	113	c	f	0x1a	ESC [ 0 2 6 q	
113	Alt	PFK	38	113	a	f	0x26	ESC [ 0 3 8 q	
114	Base	PFK	3	114	b	f	0x03	ESC [ 0 0 3 q	
114	Shift	PFK	15	114	s	f	0x0f	ESC [ 0 1 5 q	
114	Ctrl	PFK	27	114	c	f	0x1b	ESC [ 0 2 7 q	
114	Alt	PFK	39	114	a	f	0x27	ESC [ 0 3 9 q	
115	Base	PFK	4	115	b	f	0x04	ESC [ 0 0 4 q	
115	Shift	PFK	16	115	s	f	0x10	ESC [ 0 1 6 q	
115	Ctrl	PFK	28	115	c	f	0x1c	ESC [ 0 2 8 q	
115	Alt	PFK	40	115	a	f	0x28	ESC [ 0 4 0 q	

Key Posn.	Shift	Assignment		Keyboard Definition				Returned String	Notes
				nnn	s	t	-----		
116	Base	PFK	5	116	b	f	0x05	ESC [ 0 0 5 q	
116	Shift	PFK	17	116	s	f	0x11	ESC [ 0 1 7 q	
116	Ctrl	PFK	29	116	c	f	0x1d	ESC [ 0 2 9 q	
116	Alt	PFK	41	116	a	f	0x29	ESC [ 0 4 1 q	
117	Base	PFK	6	117	b	f	0x06	ESC [ 0 0 6 q	
117	Shift	PFK	18	117	s	f	0x12	ESC [ 0 1 8 q	
117	Ctrl	PFK	30	117	c	f	0x1e	ESC [ 0 3 0 q	
117	Alt	PFK	42	117	a	f	0x2a	ESC [ 0 4 2 q	
118	Base	PFK	7	118	b	f	0x07	ESC [ 0 0 7 q	
118	Shift	PFK	19	118	s	f	0x13	ESC [ 0 1 9 q	
118	Ctrl	PFK	31	118	c	f	0x1f	ESC [ 0 3 1 q	
118	Alt	PFK	43	118	a	f	0x2b	ESC [ 0 4 3 q	
119	Base	PFK	8	119	b	f	0x08	ESC [ 0 0 8 q	
119	Shift	PFK	20	119	s	f	0x14	ESC [ 0 2 0 q	
119	Ctrl	PFK	32	119	c	f	0x20	ESC [ 0 3 2 q	
119	Alt	PFK	44	119	a	f	0x2c	ESC [ 0 4 4 q	
120	Base	PFK	9	120	b	f	0x09	ESC [ 0 0 9 q	
120	Shift	PFK	21	120	s	f	0x15	ESC [ 0 2 1 q	
120	Ctrl	PFK	33	120	c	f	0x21	ESC [ 0 3 3 q	
120	Alt	PFK	45	120	a	f	0x2d	ESC [ 0 4 5 q	
121	Base	PFK	10	121	b	f	0x0a	ESC [ 0 1 0 q	
121	Shift	PFK	22	121	s	f	0x16	ESC [ 0 2 2 q	
121	Ctrl	PFK	34	121	c	f	0x22	ESC [ 0 3 4 q	
121	Alt	PFK	46	121	a	f	0x2e	ESC [ 0 4 6 q	
122	Base	PFK	11	122	b	f	0x0b	ESC [ 0 1 1 q	
122	Shift	PFK	23	122	s	f	0x17	ESC [ 0 2 3 q	
122	Ctrl	PFK	35	122	c	f	0x23	ESC [ 0 3 5 q	
122	Alt	PFK	47	122	a	f	0x2f	ESC [ 0 4 7 q	
123	Base	PFK	12	123	b	f	0x0c	ESC [ 0 1 2 q	
123	Shift	PFK	24	123	s	f	0x18	ESC [ 0 2 4 q	
123	Ctrl	PFK	36	123	c	f	0x24	ESC [ 0 3 6 q	
123	Alt	PFK	48	123	a	f	0x30	ESC [ 0 4 8 q	

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Key Posn.	Shift	Assignment	Keyboard Definition				Returned String	Notes
			nnn	s	t	-----		
124	Base	PFK 209	124	b	f	0xd1	ESC [ 2 0 9 q	
124	Shift	PFK 210	124	s	f	0xd2	ESC [ 2 1 0 q	
124	Ctrl	PFK 211	124	c	f	0xd3	ESC [ 2 1 1 q	
124	Alt	PFK 212	124	a	f	0xd4	ESC [ 2 1 2 q	
125	Base	PFK 213	125	b	f	0xd5	ESC [ 2 1 3 q	
125	Shift	PFK 214	125	s	f	0xd6	ESC [ 2 1 4 q	
125	Ctrl	PFK 215	125	c	f	0xd7	ESC [ 2 1 5 q	
125	Alt	PFK 216	125	a	f	0xd8	ESC [ 2 1 6 q	
126	Base	PFK 217	126	b	f	0xd9	ESC [ 2 1 7 q	
126	Shift	PFK 218	126	s	f	0xda	ESC [ 2 1 8 q	
126	Ctrl	DEL	126	c	c	< 127	0x7f	
126	Alt	DEL	126	a	c	< 127	0x7f	

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# Glossary

**alphabetic.** Pertaining to a set of characters, a through z.

**alphanumeric.** Consisting of letters, numbers and often other symbols, such as punctuation marks and mathematical symbols.

**American National Standard Code for Information Interchange (ASCII).** The code developed by ANSI for information interchange among data processing systems, data communications systems, and associated equipment. The ASCII character set consists of 7-bit control characters and symbolic characters.

**alt keyboard state.** See *alternate keyboard state*.

**alt gr keyboard state.** See *alternate graphic keyboard state*.

**alternate keyboard state.** A state of the keyboard obtained by pressing the Alt key in combination with another key.

**alternate graphic keyboard state.** A state of the keyboard obtained by pressing the AltGr key in combination with another key.

**application.** (1) A particular task, such as inventory control or accounts receivable. (2) A program or group of programs that apply to a particular business area, such as the Inventory Control or the Accounts Receivable application.

**ASCII.** See *American National Standard Code for Information Interchange*.

**base keyboard state.** Default state of the keyboard characterized by no shift keys being pressed.

**binary.** (1) Pertaining to a system of numbers to the base two; the binary digits are 0 and 1. (2) Involving a choice of two conditions, such as on-off or yes-no.

**bit.** Either of the binary digits 0 or 1 used in computers to store information. See also *byte*.

**bit patterns.** Combination of bits used to form data stream characters.

**block.** (1) A group of records that is recorded or processed as a unit. Same as *physical record*. (2) In data communications, a group of records that is recorded, processed, or sent as a unit. (3) A block is 512 bytes long.

**byte.** The amount of storage required to represent one character; a byte is 8 bits.

**character.** A letter, digit, or other symbol.

**character key.** A keyboard key that allows the user to enter the character shown on the key. Compare with *function keys*.

**character set.** A group of characters used for a specific reason; for example, the set of characters a printer can print or a keyboard can support.

**character string.** A sequence of consecutive characters.

**C language.** A general-purpose programming language that is the primary language of the AIX Operating System.

**code.** A system of bit patterns to which specific graphic or control meanings have been assigned.

**code page.** A specification of code points for each graphic character in a set, or in a

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collection of graphic character sets. Within a given code page, a code point can have only one specific meaning.

**code page switching.** To change to a different code page.

**code point.** One of the bit patterns specified by a code.

**control block.** A storage area used by a program to hold control information.

**control character.** A non-printing character that performs formatting functions in a text file.

**ctrl keyboard state.** See *control keyboard state*.

**control keyboard state.** A state of the keyboard obtained by pressing the Ctrl key in combination with another key.

**cursor.** (1) A movable symbol (such as an underline) on a display, used to indicate to the operator where the next typed character will be placed or where the next action will be directed. In Usability Services, the cursor is called a text cursor. (2) A marker that indicates the current data access location within a file. See also *pointing cursor*.

**customize.** To describe (to the system) the devices, programs, users, and user defaults for a particular data processing system.

**data stream.** All information (data and control information) transmitted over a data link.

**decimal.** Pertaining to a system of numbers to the base ten; decimal digits range from 0 to 9.

**default.** A value that is used when no alternative is specified by the operator.

**default value.** A value stored in the system that is used when no other value is specified.

**enable.** To make functional.

**encode.** To convert data by use of a code in such a manner that reconversion to the original form is possible.

**encoding scheme.** Method or algorithm used to encode data.

**escape character.** A character that changes the meaning of the characters that follow. For example the back slash character, used to indicate to the shell that the next character is not intended to have the special meaning normally assigned to it by the shell.

**ETX (End of Text - 0x03).** A communication grouping control character which is used to terminate a sequence of characters started with STX and transmitted as an entity.

**FF (form feed - 0c).** A formatting control character that moves the active position to the starting margin on the first predetermined printing line on the next form or page.

**font.** A family or assortment of characters of a given size and style.

**function.** A synonym for procedure. The C language treats a function as a data type that contains executable code and returns a single value to the calling function.

**function keys.** Keys that request action but do not display or print characters. Included are the keys that normally produce a printed character, but when used with a code key produce a function instead. Compare with *character key*.

**graphic character.** (1) A character that can be displayed or printed. (2) A graphic symbol, such as a numeric, alphabetic, or special character.

**graphic character set.** A set of graphic characters, treated as an entity.

**hardware.** The equipment as opposed to the programming, of a system.

**hex.** See *hexadecimal*.

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**hexadecimal.** Pertaining to a system of numbers to the base sixteen; hexadecimal digits range from 0 (zero) through 9 (nine) and A (ten) through F (fifteen).

**high-order.** Most significant; leftmost. For example, bit 0 in a register.

**HT (Horizontal Tab - 0x09).** A formatting control character that moves the active position horizontally to the next tab stop setting.

**Hiragana.** A character set of the two common Japanese phonetic alphabets. See also *Katakana*.

**index.** (1) A table containing the key value and location of each record in an indexed file.  
(2) A computer storage position or register, whose contents identify a particular element in a set of elements.

**infinity.** A name for the upper boundary of a set of numbers.

**input.** Data to be processed.

**input device.** Physical devices used to provide data to the computer.

**input mode.** An open mode in which records can be read from the file.

**input stream.** The sequence of operation control statements and data given to the system from an input device.

**input/output (I/O).** Pertaining to either input, output, or both.

**Kanji.** A character set of symbols used in Japanese ideographic alphabets.

**Katakana.** A character set of symbols used in one of the two common Japanese phonetic alphabets. See also *Hiragana*, *Kanji*.

**key pad.** A physical grouping of keys on a keyboard (for example, numeric key pad, and cursor key pad).

**keyboard.** An input device consisting of various keys allowing the user to input data, control cursor and pointer locations, and to control the user/workstation dialog.

**lowercase character.** Those graphic characters of a primary set which can be input from a keyboard without use of any shift key (including the small letters).

**low-order.** Least significant; rightmost. For example, in a 32 bit register (0-31), bit 31 is the low-order bit.

**nonspacing character sequence.** A two-key sequence consisting of one diacritic followed by an alphabetic character.

**NUL (Null - 0x00).** A synchronization control character, with an all-zeros bit pattern, which may serve to accomplish time and media fill.

**null.** Having no value, containing nothing.

**null character (NUL).** The character 0x00, used to represent the absence of a printed or displayed character.

**non-escaping key.** On a typewriter and in word processing, a key that allows a character to be typed without the imprint position being changed.

**numeric.** Pertaining to any of the digits 0 through 9.

**operating system.** Software that controls the running of programs; in addition, an operating system may provide services such as resource allocation, scheduling, input/output control, and data management.

**output.** The result of processing data.

**output devices.** Physical devices used by a computer to present data to a user.

**output mode.** An open mode in which records can be written to the file.



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**output stream.** Messages and other output data, displayed on output devices by an operating system or a processing program.

**PKC.** See *phonetic to kanji conversion*.

**pipe.** To direct the data from one process to another process.

**program.** A document containing a set of instructions, conforming to a particular programming language syntax. Programs perform processes and are represented by process objects when active (when they are executed).

**shift keyboard state.** A state of the keyboard obtained by pressing the Shift key in combination with another key.

**software.** Programs.

**SOH (Start of Heading - 0x01).** A communication grouping control character which is used at the beginning of a sequence of characters which constitute a machine-sensible address or routing information. Such a sequence is referred to as the heading.

**STX (Start of Text - 0x02).** A communication grouping control character which is used at the beginning of a sequence of characters which constitute a machine-sensible address or routing information. Such a sequence is referred to as the text. STX may be used to terminate a sequence of characters started by SOH.

**system.** The computer and its associated devices and programs.

**text.** A type of data consisting of a set of linguistic characters (alphabet, numbers, symbols) and formatting controls.

**uppercase character.** Those graphic characters (including capital letters) of a primary set which can be input from a keyboard by using the normal shift key.

**utility.** (1) A computer program in general support of the processes of a computer; for instance, a diagnostic program, a trace program, a sort program. (2) A program designed to perform an everyday task such as copying data from one storage device to another.

**valid.** (1) Allowed. (2) True, in conforming to an appropriate standard or authority.

**virtual machine interface (VMI).** A software interface between work stations and the operating system. The VMI shields operating system software from hardware changes and low-level interfaces and provides for concurrent execution of multiple virtual machines.

**virtual resource manager (VRM).** A set of programs that manage the hardware resources (main storage, disk storage, display stations, and printers) of the system so that these resources can be used independently of each other.

**VMI.** See *virtual machine interface*.

**VRM.** See *virtual resource manager*.

**VT (Vertical Tab - 0x0b).** A formatting control character that moves the active position vertically to the next in a series of predetermined lines.

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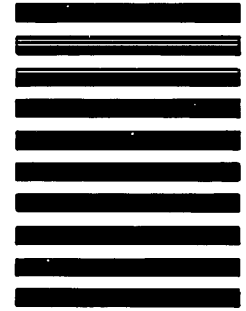


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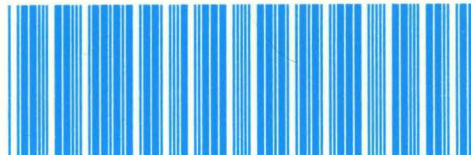
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