



# CHARACTER SETS

This appendix shows the character sets supported by the Color Companion Printer in DEC mode. Graphic symbols of the ASCII set and the DEC Supplemental set are specified by ISO 6937. The ID code given for each character is a reference to the corresponding ISO 6937 character with the same graphic symbol.

The National Replacement Character (NRC) sets contain 94 characters. Characters in the NRC sets may differ from the ASCII set in only 12 locations.

**Table A-1 DEC Mode Character Sets**

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# CHARACTER SETS

BITS		0 0		0 0 1		0 1 0		0 1 1		1 0 0		1 0 1		1 1 0		1 1 1	
B4 B3 B2 B1		COLUMN		1		2		3		4		5		6		7	
ROW		0		1		2		3		4		5		6		7	
0 0 0 0	0	NUL	0 0 0		20 16 10	SP	40 32 20	0	60 48 30	@	100 64 40	P	120 80 50	'	140 96 60	p	160 112 70
0 0 0 1	1		1 1 1	DC1 (XON)	21 17 11	!	41 33 21	1	61 49 31	A	101 65 41	Q	121 81 51	a	141 97 61	q	161 113 71
0 0 1 0	2		2 2 2		22 18 12	"	42 34 22	2	62 50 32	B	102 66 42	R	122 82 52	b	142 98 62	r	162 114 72
0 0 1 1	3		3 3 3	DC3 (XOFF)	23 19 13	#	43 35 23	3	63 51 33	C	103 67 43	S	123 83 53	c	143 99 63	s	163 115 73
0 1 0 0	4		4 4 4		24 20 14	\$	44 36 24	4	64 52 34	D	104 68 44	T	124 84 54	d	144 100 64	t	164 116 74
0 1 0 1	5		5 5 5		25 19 15	%	45 37 25	5	65 53 35	E	105 69 45	U	125 85 55	e	145 101 65	u	165 117 75
0 1 1 0	6		6 6 6		26 22 16	&	46 38 26	6	66 54 36	F	106 70 46	V	126 86 56	f	146 102 66	v	166 118 76
0 1 1 1	7	BEL	7 7 7		27 23 17	'	47 39 27	7	67 55 37	G	107 71 47	W	127 87 57	g	147 103 67	w	167 119 77
1 0 0 0	8	BS	10 8 8	CAN	30 24 18	(	50 40 28	8	70 56 38	H	110 72 48	X	130 88 58	h	150 104 68	x	170 120 78
1 0 0 1	9	HT	11 9 9		31 25 19	)	51 41 29	9	71 57 39	I	111 73 49	Y	131 89 59	i	151 105 69	y	171 121 79
1 0 1 0	10	LF	12 10 A	SUB	32 26 1A	*	52 42 2A	:	72 58 3A	J	112 74 4A	Z	132 90 5A	j	152 106 6A	z	172 122 7A
1 0 1 1	11	VT	13 11 B	ESC	33 27 1B	+	53 43 2B	;	73 59 3B	K	113 75 4B	[	133 91 5B	k	153 107 6B	{	173 123 7B
1 1 0 0	12	FF	14 12 C		34 28 1C	,	54 44 2C	<	74 60 3C	L	114 76 4C	\	134 92 5C	l	154 108 6C		174 124 7C
1 1 0 1	13	CR	15 13 D		35 29 1D	-	55 45 2D	=	75 61 3D	M	115 77 4D	]	135 93 5D	m	155 109 6D	}	175 125 7D
1 1 1 0	14	SO	16 14 E		36 30 1E	.	56 46 2E	>	76 62 3E	N	116 78 4E	^	136 94 5E	n	156 110 6E	~	176 126 7E
1 1 1 1	15	SI	17 15 F		37 31 1F	/	57 47 2F	?	77 63 3F	O	117 79 4F	_	137 95 5F	o	157 111 6F	DEL	177 127 7F

## KEY

ASCII CHARACTER	ESC	33 27 1B	OCTAL DECIMAL HEX
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MA-72477

Figure A-1 ASCII/ANSI Character Set

## ASCII/ANSI

Octal/Hex Code	ISO 693 ID Code		Description of Character
041/21H	SP02	!	Exclamation point
042/22H	SP04	"	Quotation marks
043/23H	SM01	#	Number sign
044/24H	SC03	\$	Dollar sign
045/25H	SM02	%	Percent sign
046/26H	SM03	&	Ampersand
047/27H	SP05	'	Apostrophe
050/28H	SP06	(	Opening parenthesis
051/29H	SP07	)	Closing parenthesis
052/2AH	SM04	*	Asterisk
053/2BH	SA01	+	Plus
054/2CH	SP08	,	Comma
055/2DH	SP10	-	Hyphen or minus
056/2EH	SP11	.	Period or decimal point
057/2FH	SP12	/	Slash
060/30H	ND01	0	Digit 0 "not slashed"
061/31H	ND02	1	Digit 1
062/32H	ND03	2	Digit 2
063/33H	ND04	3	Digit 3
064/34H	ND05	4	Digit 4
065/35H	ND06	5	Digit 5
066/36H	ND07	6	Digit 6
067/37H	ND08	7	Digit 7
070/38H	ND09	8	Digit 8
071/39H	ND10	9	Digit 9
072/3AH	SP13	:	Colon
073/3BH	SP14	;	Semicolon
074/3CH	SA03	<	Less than
075/3DH	SA04	=	Equals
076/3EH	SA05	>	Greater than
077/3FH	SP15	?	Question mark
100/40H	SM05	@	Commercial at
101/41H	LA02	A	Capital A
102/42H	LB02	B	Capital B
103/43H	LC02	C	Capital C

## CHARACTER SETS

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104/44H	LD02	D	Capital D
105/45H	LE02	E	Capital E
106/46H	LF02	F	Capital F
107/47H	LG02	G	Capital G
110/48H	LH02	H	Capital H
111/49H	LI02	I	Capital I
112/4AH	LJ02	J	Capital J
113/4BH	LK02	K	Capital K
114/4CH	LL02	L	Capital L
115/4DH	LM02	M	Capital M
116/4EH	LN02	N	Capital N
117/4FH	LO02	O	Capital O
120/50H	LP02	P	Capital P
121/51H	LQ02	Q	Capital Q
122/52H	LR02	R	Capital R
123/53H	LS02	S	Capital S
124/54H	LT02	T	Capital T
125/55H	LU02	U	Capital U
126/56H	LV02	V	Capital V
127/57H	LW02	W	Capital W
130/58H	LX02	X	Capital X
131/59H	LY02	Y	Capital Y
132/5AH	LZ02	Z	Capital Z
133/5BH	SM06	[	Opening bracket
134/5CH	SM07	\	Backslash
135/5DH	SM08	]	Closing bracket
136/5EH	SM09	^	Circumflex
137/5FH	SP09	_	Underline
140/60H	SM94	`	Opening single quotation mark, grave accent
141/61H	LA01	a	Small a
142/62H	LB01	b	Small b
143/63H	LC01	c	Small c
144/64H	LD01	d	Small d
145/65H	LE01	e	Small e
146/66H	LF01	f	Small f
147/67H	LG01	g	Small g
150/68H	LH01	h	Small h
151/69H	LI01	i	Small i
152/6AH	LJ01	j	Small j


153/6BH	LK01	k	Small k
154/6CH	LL01	l	Small l
155/6DH	LM01	m	Small m
156/6EH	LN01	n	Small n
157/6FH	LO01	o	Small o
160/70H	LP01	p	Small p
161/71H	LQ01	q	Small q
162/72H	LR01	r	Small r
163/73H	LS01	s	Small s
164/74H	LT01	t	Small t
165/75H	LU01	u	Small u
166/76H	LV01	v	Small v
167/77H	LW01	w	Small w
170/78H	LX01	x	Small x
171/79H	LY01	y	Small y
172/7AH	LZ01	z	Small z
173/7BH	SM11	{	Opening brace
174/7CH	SM13		"Solid" vertical line
175/7DH	SM14	}	Closing brace
176/7EH	SD19	~	Tilde

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# CHARACTER SETS

ROW	BITS B4 B3 B2 B1	COLUMN		0		1		2		3		4		5		6		7	
		87 0 86 0 85 0	0	0 0	0 1	0 1	0 1	1 0	1 0	1 0	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
0	0 0 0 0	NUL	0 0 0	20 16 10	SP	40 32 20	0	60 48 30	@	100 64 40	P	120 80 50	`	140 96 60	p	160 112 70			
1	0 0 0 1		1 1 1	DC1 (XON)	21 17 11	!	41 33 21	1	61 49 31	A	101 65 41	Q	121 81 51	a	141 97 61	q	161 113 71		
2	0 0 1 0		2 2 2		22 18 12	"	42 34 22	2	62 50 32	B	102 66 42	R	122 82 52	b	142 98 62	r	162 114 72		
3	0 0 1 1		3 3 3	DC3 (XOFF)	23 19 13	£	43 35 23	3	63 51 33	C	103 67 43	S	123 83 53	c	143 99 63	s	163 115 73		
4	0 1 0 0		4 4 4		24 20 14	\$	44 36 24	4	64 52 34	D	104 68 44	T	124 84 54	d	144 100 64	t	164 116 74		
5	0 1 0 1		5 5 5		25 21 15	%	45 37 25	5	65 53 35	E	105 69 45	U	125 85 55	e	145 101 65	u	165 117 75		
6	0 1 1 0		6 6 6		26 22 16	&	46 38 26	6	66 54 36	F	106 70 46	V	126 86 56	f	146 102 66	v	166 118 76		
7	0 1 1 1	BEL	7 7 7		27 23 17	'	47 39 27	7	67 55 37	G	107 71 47	W	127 87 57	g	147 103 67	w	167 119 77		
8	1 0 0 0	BS	10 8 8	CAN	30 24 18	(	50 40 28	8	70 56 38	H	110 72 48	X	130 88 58	h	150 104 68	x	170 120 78		
9	1 0 0 1	HT	11 9 9		31 25 19	)	51 41 29	9	71 57 39	I	111 73 49	Y	131 89 59	i	151 105 69	y	171 121 79		
10	1 0 1 0	LF	12 10 A	SUB	32 26 1A	*	52 42 2A	:	72 58 3A	J	112 74 4A	Z	132 90 5A	j	152 106 6A	z	172 122 7A		
11	1 0 1 1	VT	13 11 B	ESC	33 27 1B	+	53 43 2B	;	73 59 3B	K	113 75 4B	[	133 91 5B	k	153 107 6B	{	173 123 7B		
12	1 1 0 0	FF	14 12 C		34 28 1C	,	54 44 2C	<	74 60 3C	L	114 76 4C	\	134 92 5C	l	154 108 6C		174 124 7C		
13	1 1 0 1	CR	15 13 D		35 29 1D	-	55 45 2D	=	75 61 3D	M	115 77 4D	]	135 93 5D	m	155 109 6D	}	175 125 7D		
14	1 1 1 0	SO	16 14 E		36 30 1E	.	56 46 2E	>	76 62 3E	N	116 78 4E	^	136 94 5E	n	156 110 6E	~	176 126 7E		
15	1 1 1 1	SI	17 15 F		37 31 1F	/	57 47 2F	?	77 63 3F	O	117 79 4F	_	137 95 5F	o	157 111 6F	DEL	177 127 7F		

## KEY

ASCII CHARACTER	ESC	1/11	COLUMN/ROW		HIGHLIGHTS DIFFERENCES FROM ASCII
		33	OCTAL		
		27	DECIMAL		
		1B	HEX		

MA-7248C

Figure A-2 British Character Set

**British**

The British character set differs from the ASCII character set in the following position:


<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
043/23H	#	SC02	Pound sign

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# CHARACTER SETS

ROW	BITS B4 B3 B2 B1	COLUMN		0		1		2		3		4		5		6		7					
		B7 0 B6 0 B5 0	0	0 0	0 1	0 1	0 1	0 1	1 0	1 0	1 0	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1				
0	0 0 0 0	NUL	0 0 0		20 16 10		SP	40 32 20		0	80 48 30		*	100 64 40		P	120 80 50		'	140 96 60		p	160 112 76
1	0 0 0 1		1 1 1	DC1 (XON)	21 17 11		!	41 33 21		1	61 49 31		A	101 65 41		Q	121 81 51		a	141 97 61		q	161 113 71
2	0 0 1 0		2 2 2		22 18 12		"	42 34 22		2	62 50 32		B	102 66 42		R	122 82 52		b	142 98 62		r	162 114 72
3	0 0 1 1		3 3 3	DC3 (XOFF)	23 19 13		£	43 35 23		3	63 51 33		C	103 67 43		S	123 83 53		c	143 99 63		s	163 115 73
4	0 1 0 0		4 4 4		24 20 14		\$	44 36 24		4	64 52 34		D	104 68 44		T	124 84 54		d	144 100 64		t	164 116 74
5	0 1 0 1		5 5 5		25 21 15		%	45 37 25		5	65 53 35		E	105 69 45		U	125 85 55		e	145 101 65		u	165 117 75
6	0 1 1 0		6 6 6		26 22 16		&	46 38 26		6	66 54 36		F	106 70 46		V	126 86 56		f	146 102 66		v	166 118 76
7	0 1 1 1	BEL	7 7 7		27 23 17		'	47 39 27		7	67 55 37		G	107 71 47		W	127 87 57		g	147 103 67		w	167 119 77
8	1 0 0 0	BS	10 8 8	CAN	30 26 18		(	50 40 28		8	70 56 38		H	110 72 48		X	130 88 58		h	150 104 68		x	170 120 78
9	1 0 0 1	HT	11 9 9		31 25 19		)	51 41 29		9	71 57 39		I	111 73 49		Y	131 89 59		i	151 105 69		y	171 121 79
10	1 0 1 0	LF	12 10 A	SUB	32 26 1A		*	52 42 2A		:	72 58 3A		J	112 74 4A		Z	132 90 5A		j	152 106 6A		z	172 122 7A
11	1 0 1 1	VT	13 11 B	ESC	33 27 1B		+	53 43 2B		;	73 59 3B		K	113 75 4B		y	133 91 5B		k	153 107 6B		**	173 123 7B
12	1 1 0 0	FF	14 12 C		34 28 1C		,	54 44 2C		<	74 60 3C		L	114 76 4C		½	134 92 5C		l	154 108 6C		†	174 124 7C
13	1 1 0 1	CR	15 13 D		35 29 1D		-	55 45 2D		=	75 61 3D		M	115 77 4D		¡	135 93 5D		m	155 109 6D		¼	175 125 7D
14	1 1 1 0	SO	16 14 E		36 30 1E		.	56 46 2E		>	76 62 3E		N	116 78 4E		^	136 94 5E		n	156 110 6E		•	176 126 7E
15	1 1 1 1	SI	17 15 F		37 31 1F		/	57 47 2F		?	77 63 3F		O	117 79 4F		_	137 95 5F		o	157 111 6F		DEL	177 127 7F

## KEY

ASCII CHARACTER	<b>ESC</b>	1/11 33 27 1B	COLUMN/ROW OCTAL DECIMAL HEX		HIGHLIGHTS DIFFERENCES FROM ASCII
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MKV87-1477

Figure A-3 DEC Dutch Character Set



**DEC Dutch**

The DEC Dutch character set differs from the ASCII character set in the following positions:

<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
043/23H	#	SC02	Pound sign
100/40H	@		Fraction three quarter
133/5BH	[		Small y with umlaut
134/5CH	\	NF01	Fraction one half
135/5DH	]	SM13	“Solid” vertical bar
173/7BH	{		Umlaut
174/7CH		LF01	Small f (fallback for florin)
175/7DH	}	NF04	Fraction one quarter
176/7EH	~		Acute accent

# CHARACTER SETS

ROW	BITS				COLUMN		0		1		2		3		4		5		6		7	
	B4	B3	B2	B1	B7	B6	B5	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
0	0	0	0	0	NUL		0	20	SP	40	0	60	@	100	P	120	ä	140	p	160		
1	0	0	0	1	DC1 (XON)		1	21	!	41	1	61	A	101	Q	121	a	141	q	161		
2	0	0	1	0			2	22	"	42	2	62	B	102	R	122	b	142	r	162		
3	0	0	1	1	DC3 (XOFF)		3	23	#	43	3	63	C	103	S	123	c	143	s	163		
4	0	1	0	0			4	24	\$	44	4	64	D	104	T	124	d	144	t	164		
5	0	1	0	1			5	25	%	45	5	65	E	105	U	125	e	145	u	165		
6	0	1	1	0			6	26	&	46	6	66	F	106	V	126	f	146	v	166		
7	0	1	1	1	BEL		7	27	'	47	7	67	G	107	W	127	g	147	w	167		
8	1	0	0	0	BS		8	28	(	48	8	68	H	110	X	130	h	150	x	170		
9	1	0	0	1	HT		9	29	)	49	9	69	I	111	Y	131	i	151	y	171		
10	1	0	1	0	LF		10	30	*	50	:	70	J	112	Z	132	j	152	z	172		
11	1	0	1	1	VT		11	31	+	51	;	71	K	113	ä	133	k	153	ä	173		
12	1	1	0	0	FF		12	32	,	52	<	72	L	114	ö	134	l	154	ö	174		
13	1	1	0	1	CR		13	33	-	53	=	73	M	115	å	135	m	155	å	175		
14	1	1	1	0	SO		14	34	.	54	>	74	N	116	ü	136	n	156	ü	176		
15	1	1	1	1	SI		15	35	/	55	?	75	O	117	—	137	o	157	DEL	177		

## KEY

ASCII CHARACTER

ESC	1/11
	33
	27
	1B

COLUMN/ROW

OCTAL

DECIMAL

HEX



HIGHLIGHTS DIFFERENCES FROM ASCII

MA-74206

Figure A-4 DEC Finnish Character Set

**DEC Finnish**

The DEC Finnish character set differs from the ASCII character set in the following positions:

<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
133/5BH	[	LA18	Capital A with umlaut
134/5CH	\	LO18	Capital O with umlaut
135/5DH	]	LA28	Capital A with ring
136/5EH	^	LE18	Capital U with umlaut
140/60H	~	LE11	Small e with acute accent
173/7BH	{	LA17	Small a with umlaut
174/7CH		LO17	Small o with umlaut
175/7DH	}	LA27	Small a with ring
176/7EH	~	LU17	Small u with umlaut

# CHARACTER SETS

ROW	BITS B4 B3 B2 B1	COLUMN		0		1		2		3		4		5		6		7	
		B7 B6 B5	0 0 0	0 0 0	0 0 0	0 1 0	0 1 1	1 0 0	1 0 1	1 1 0	1 1 1								
0	0 0 0 0	NUL	0 0 0	20 16 10	SP	40 32 20	0	60 48 30	80 64 40	100 84 68	P	120 80 50	'	140 96 60	p	160 112 70			
1	0 0 0 1		1 1 1	21 17 11	DC1 (XON)	41 33 21	1	61 49 31	81 65 41	101 85 61	Q	121 81 51	a	141 97 61	q	161 113 71			
2	0 0 1 0		2 2 2	22 18 12		42 34 22	2	62 50 32	82 66 42	102 86 62	R	122 82 52	b	142 98 62	r	162 114 72			
3	0 0 1 1		3 3 3	23 19 13	DC3 (XOFF)	43 35 23	3	63 51 33	83 67 43	103 87 63	S	123 83 53	c	143 99 63	s	163 115 73			
4	0 1 0 0		4 4 4	24 20 14		44 36 24	4	64 52 34	84 68 44	104 88 64	T	124 84 54	d	144 100 64	t	164 116 74			
5	0 1 0 1		5 5 5	25 21 15		45 37 25	5	65 53 35	85 69 45	105 89 65	U	125 85 55	e	145 101 65	u	165 117 75			
6	0 1 1 0		6 6 6	26 22 16		46 38 26	6	66 54 36	86 70 46	106 90 66	V	126 86 56	f	146 102 66	v	166 118 76			
7	0 1 1 1	BEL	7 7 7	27 23 17		47 39 27	7	67 55 37	87 71 47	107 91 67	W	127 87 57	g	147 103 67	w	167 119 77			
8	1 0 0 0	BS	8 8 8	30 24 18	CAN	50 40 28	8	70 56 38	90 74 48	110 94 68	X	130 88 58	h	150 104 68	x	170 120 78			
9	1 0 0 1	HT	9 9 9	31 25 19		51 41 29	9	71 57 39	81 65 49	111 95 69	Y	131 89 59	i	151 105 69	y	171 121 79			
10	1 0 1 0	LF	10 10 10	32 26 1A	SUB	52 42 2A	:	72 58 3A	82 66 4A	112 96 70	J	132 90 5A	j	152 106 70	z	172 122 7A			
11	1 0 1 1	VT	11 11 11	33 27 1B	ESC	53 43 2B	;	73 59 3B	83 67 4B	113 97 71	K	133 91 5B	k	153 107 71	z	173 123 7B			
12	1 1 0 0	FF	12 12 12	34 28 1C		54 44 2C	<	74 60 3C	84 68 4C	114 98 72	L	134 92 5C	l	154 108 72	z	174 124 7C			
13	1 1 0 1	CR	13 13 13	35 29 1D		55 45 2D	=	75 61 3D	85 69 4D	115 99 73	M	135 93 5D	m	155 109 73	z	175 125 7D			
14	1 1 1 0	SO	14 14 14	36 30 1E		56 46 2E	>	76 62 3E	86 70 4E	116 100 74	N	136 94 5E	n	156 110 74	z	176 126 7E			
15	1 1 1 1	SI	15 15 15	37 31 1F		57 47 2F	?	77 63 3F	87 71 4F	117 101 75	O	137 95 5F	o	157 111 75	DEL	177 127 7F			

## KEY

ASCII CHARACTER

ESC	1/11	COLUMN/ROW
	33	OCTAL
	27	DECIMAL
	1B	HEX

HIGHLIGHTS DIFFERENCES FROM ASCII

NOTE  
QUOTATION MARKS (") ARE USED AS AN APPROXIMATION FOR THE DIAERESIS MARK (¨), COLUMN 7/ROW 14.

MA-74256

Figure A-5 French Character Set

**French**

The French character set differs from the ASCII character set in the following positions:

<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
043/23H	#	SC02	Pound sign
100/40H	@	LA13	Small a with grave accent
133/5BH	[	SM19	Degree sign
134/5CH	\	LC41	Small c with cedilla
135/5DH	]	SM24	Section sign
173/7BH	{	LE11	Small e with acute accent
174/7CH		LU13	Small u with grave accent
175/7DH	}	LE13	Small e with grave accent
176/7EH	~		Dieresis, trema

# CHARACTER SETS

ROW	BITS B4 B3 B2 B1	COLUMN													
		0	1	2	3	4	5	6	7						
0	0 0 0 0	NUL		SP	0	à	P	Ù	p						
1	0 0 0 1		DC1 (XON)	!	1	A	Q	a	q						
2	0 0 1 0			"	2	B	R	b	r						
3	0 0 1 1		DC3 (XOFF)	#	3	C	S	c	s						
4	0 1 0 0			\$	4	D	T	d	t						
5	0 1 0 1			%	5	E	U	e	u						
6	0 1 1 0			&	6	F	V	f	v						
7	0 1 1 1	BEL		,	7	G	W	g	w						
8	1 0 0 0	BS	CAN	(	8	H	X	h	x						
9	1 0 0 1	HT		)	9	I	Y	i	y						
10	1 0 1 0	LF	SUB	*	:	J	Z	j	z						
11	1 0 1 1	VT	ESC	+	;	K	à	k	é						
12	1 1 0 0	FF		,	<	L	ç	l	ù						
13	1 1 0 1	CR		-	=	M	ê	m	û						
14	1 1 1 0	SO		.	>	N	î	n	ü						
15	1 1 1 1	SI		/	?	O	—	o	DEL						

## KEY

ASCII CHARACTER

ESC	1/11
	33
	27
	1B

COLUMN/ROW  
OCTAL  
DECIMAL  
HEX



HIGHLIGHTS DIFFERENCES FROM ASCII

MA-22475

Figure A-6 French-Canadian Character Set

**DEC French-Canadian**


The DEC French-Canadian character set differs from the ASCII character set in the following positions:

<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
100/40H	@	LA13	Small a with grave accent
133/5BH	[	LA15	Small a with circumflex accent
134/5CH	\	LC41	Small c with cedilla
135/5DH	]	LE15	Small e with circumflex accent
136/5EH	^	LI15	Small i with circumflex accent
140/60H	˘	LO15	Small o with circumflex accent
173/7BH	{	LE11	Small e with acute accent
174/7CH		LU13	Small u with grave accent
175/7DH	}	LE13	Small e with grave accent
176/7EH	˘	LU15	Small u with circumflex accent

# CHARACTER SETS

ROW	BITS				COLUMN		0	1	2	3	4	5	6	7				
	B4	B3	B2	B1	B7	B5	0	1	0	1	1	0	1	0	1			
0	0	0	0	0	NUL	0	20	SP	40	0	60	100	P	120	140	p	160	
1	0	0	0	1	DC1 (XON)	1	21	!	41	1	61	A	Q	121	a	141	q	161
2	0	0	1	0		2	22	"	42	2	62	B	R	122	b	142	r	162
3	0	0	1	1	DC3 (XOFF)	3	23	#	43	3	63	C	S	123	c	143	s	163
4	0	1	0	0		4	24	\$	44	4	64	D	T	124	d	144	t	164
5	0	1	0	1		5	25	%	45	5	65	E	U	125	e	145	u	165
6	0	1	1	0		6	26	&	46	6	66	F	V	126	f	146	v	166
7	0	1	1	1	BEL	7	27	'	47	7	67	G	W	127	g	147	w	167
8	1	0	0	0	BS	8	28	(	48	8	68	H	X	128	h	148	x	168
9	1	0	0	1	HT	9	29	)	49	9	69	I	Y	129	i	149	y	169
10	1	0	1	0	LF	10	30	*	50	:	70	J	Z	130	j	150	z	170
11	1	0	1	1	VT	11	31	+	51	;	71	K	X	131	k	151	z	171
12	1	1	0	0	FF	12	32	,	52	<	72	L	b	132	l	152	z	172
13	1	1	0	1	CR	13	33	-	53	=	73	M	u	133	m	153	z	173
14	1	1	1	0	SO	14	34	.	54	>	74	N	^	134	n	154	z	174
15	1	1	1	1	SI	15	35	/	55	?	75	O	_	135	o	155	DEL	175

**KEY**

ASCII CHARACTER	<b>ESC</b>	1/11	COLUMN/ROW		HIGHLIGHTS DIFFERENCES FROM ASCII
		33	OCTAL		
		27	DECIMAL		
		1B	HEX		

MA-74228

Figure A-7 German Character Set



**German**

The German character set differs from the ASCII character set in the following positions:

<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
100/40H	@	SM24	Section sign
133/5BH	[	LA18	Capital A with umlaut
134/5CH	\	LO18	Capital O with umlaut
135/5DH	]	LU18	Capital U with umlaut
173/7BH	{	LA17	Small a with umlaut
174/7CH		LO17	Small o with umlaut
175/7DH	}	LU17	Small u with umlaut
176/7EH	~	LS61	Sharp s

# CHARACTER SETS

ROW	BITS				0		1		2		3		4		5		6		7	
	87 0 86 0 85 0				0 0		0 1		0 1		1 0		1 0		1 1		1 1		1 1	
	84	83	82	81	0		1		0		1		0		1		0		1	
0	0	0	0	0	NUL	0	20	SP	40	0	60	§	100	P	120	µ	140	p	160	
1	0	0	0	1	DC1 (XON)	1	21	!	41	1	61	A	101	Q	121	a	141	q	161	
2	0	0	1	0		2	22	"	42	2	62	B	102	R	122	b	142	r	162	
3	0	0	1	1	DC3 (XOFF)	3	23	£	43	3	63	C	103	S	123	c	143	s	163	
4	0	1	0	0		4	24	\$	44	4	64	D	104	T	124	d	144	t	164	
5	0	1	0	1		5	25	%	45	5	65	E	105	U	125	e	145	u	165	
6	0	1	1	0		6	26	&	46	6	66	F	106	V	126	f	146	v	166	
7	0	1	1	1	BEL	7	27	'	47	7	67	G	107	W	127	g	147	w	167	
8	1	0	0	0	BS	8	28	(	50	8	70	H	110	X	130	h	150	x	170	
9	1	0	0	1	HT	9	29	)	51	9	71	I	111	Y	131	i	151	y	171	
10	1	0	1	0	LF	10	30	*	52	:	72	J	112	Z	132	j	152	z	172	
11	1	0	1	1	VT	11	31	+	53	;	73	K	113	.	133	k	153	.	173	
12	1	1	0	0	FF	12	32	,	54	<	74	L	114	ç	134	l	154	ç	174	
13	1	1	0	1	CR	13	33	-	55	=	75	M	115	;	135	m	155	.	175	
14	1	1	1	0	SO	14	34	.	56	>	76	N	116	^	136	n	156	.	176	
15	1	1	1	1	SI	15	35	/	57	?	77	O	117	_	137	o	157	DEL	177	

## KEY

ASCII CHARACTER

ESC	1/11
	33
	27
	1B

COLUMN/ROW  
OCTAL  
DECIMAL  
HEX



HIGHLIGHTS DIFFERENCES FROM ASCII

MA 72470

Figure A-8 ISO Italian Character Set

**ISO Italian**


The ISO Italian character set differs from the ASCII character set in the following positions:

<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
043/23H	#	SC02	Pound sign
100/40H	@	SM24	Section sign
133/5BH	[	SM19	Degree sign
134/5CH	\	LC41	Small c with cedilla
135/5DH	]	LE11	Small e with acute accent
140/60H	`	LU13	Small u with grave accent
173/7BH	{	LA13	Small a with grave accent
174/7CH		LO13	Small o with grave accent
175/7DH	}	LE13	Small e with grave accent
176/7EH	~	LI13	Small i with grave accent

# CHARACTER SETS

ROW	BITS				COLUMN 0		1	2	3	4	5	6	7							
	B4	B3	B2	B1	B7 B6 B5	0 0	0 1	0 1 0	0 1 1	1 0 0	1 0 1	1 1 0	1 1 1							
0	0	0	0	0	NUL	0 0 0	20 16 10	SP	40 32 20	0	60 48 30	@	100 64 40	P	120 80 50	\	140 96 60	p	160 112 70	
1	0	0	0	1		1 1 1	DC1 (XON)	21 17 11	!	41 33 21	1	61 49 31	A	101 65 41	Q	121 81 51	a	141 97 61	q	161 113 71
2	0	0	1	0		2 2 2		22 18 12	"	42 34 22	2	62 50 32	B	102 66 42	R	122 82 52	b	142 98 62	r	162 114 72
3	0	0	1	1		3 3 3	DC3 (XOFF)	23 19 13	#	43 35 23	3	63 51 33	C	103 67 43	S	123 83 53	c	143 99 63	s	163 115 73
4	0	1	0	0		4 4 4		24 20 14	\$	44 36 24	4	64 52 34	D	104 68 44	T	124 84 54	d	144 100 64	t	164 116 74
5	0	1	0	1		5 5 5		25 21 15	%	45 37 25	5	65 53 35	E	105 69 45	U	125 85 55	e	145 101 65	u	165 117 75
6	0	1	1	0		6 6 6		26 22 16	&	46 38 26	6	66 54 36	F	106 70 46	V	126 86 56	f	146 102 66	v	166 118 76
7	0	1	1	1		7 7 7	BEL	27 23 17	,	47 39 27	7	67 55 37	G	107 71 47	W	127 87 57	g	147 103 67	w	167 119 77
8	1	0	0	0		8 8 8	BS	30 24 18	CAN	50 40 28	8	70 56 38	H	110 72 48	X	130 88 58	h	150 104 68	x	170 120 78
9	1	0	0	1		9 9 9	HT	31 25 19	)	51 41 29	9	71 57 39	I	111 73 49	Y	131 89 59	i	151 105 69	y	171 121 79
10	1	0	1	0		10 10 A	LF	32 26 1A	SUB	52 42 2A	:	72 58 3A	J	112 74 4A	Z	132 90 5A	j	152 106 6A	z	172 122 7A
11	1	0	1	1		11 11 B	VT	33 27 1B	ESC	53 43 2B	;	73 59 3B	K	113 75 4B	[	133 91 5B	k	153 107 6B	{	173 123 7B
12	1	1	0	0		12 12 C	FF	34 28 1C	,	54 44 2C	<	74 60 3C	L	114 76 4C	]	134 92 5C	l	154 108 6C		174 124 7C
13	1	1	0	1		13 13 D	CR	35 29 1D	-	55 45 2D	=	75 61 3D	M	115 77 4D	^	135 93 5D	m	155 109 6D	}	175 125 7D
14	1	1	1	0		14 14 E	SO	36 30 1E	.	56 46 2E	>	76 62 3E	N	116 78 4E	^	136 94 5E	n	156 110 6E	~	176 126 7E
15	1	1	1	1		15 15 F	SI	37 31 1F	/	57 47 2F	?	77 63 3F	O	117 79 4F	_	137 95 5F	o	157 111 6F	DEL	177 127 7F

**KEY**

ASCH CHARACTER	<b>ESC</b>	1/11 33 27 1B	COLUMN/ROW OCTAL DECIMAL HEX	 HIGHLIGHTS DIFFERENCES FROM ASCII
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HEX08-1104

Figure A-9 Japanese (JIS Roman) Character Set

**Japanese (JIS Roman)**

The JIS Roman character set differs from the ASCII character set in the following position:

<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
134/5CH	\	SC05	Yen sign
176/7EH	~		Macron

---

# CHARACTER SETS

ROW	BITS				COLUMN		0	1	2	3	4	5	6	7					
	B4	B3	B2	B1	B7	B5	0	1	2	3	4	5	6	7					
0	0	0	0	0	NUL	0	20	SP	40	0	60	A	100	P	120	a	140	p	160
1	0	0	0	1		1	21	!	41	1	61	A	101	Q	121	a	141	q	161
2	0	0	1	0		2	22	"	42	2	62	B	102	R	122	b	142	r	162
3	0	0	1	1		3	23	#	43	3	63	C	103	S	123	c	143	s	163
4	0	1	0	0		4	24	\$	44	4	64	D	104	T	124	d	144	t	164
5	0	1	0	1		5	25	%	45	5	65	E	105	U	125	e	145	u	165
6	0	1	1	0		6	26	&	46	6	66	F	106	V	126	f	146	v	166
7	0	1	1	1	BEL	7	27	'	47	7	67	G	107	W	127	g	147	w	167
8	1	0	0	0	BS	8	28	(	48	8	68	H	108	X	128	h	148	x	168
9	1	0	0	1	HT	9	29	)	49	9	69	I	109	Y	129	i	149	y	169
10	1	0	1	0	LF	10	30	*	50	:	70	J	110	Z	130	j	150	z	170
11	1	0	1	1	VT	11	31	+	51	;	71	K	111	E	131	k	151	•	171
12	1	1	0	0	FF	12	32	,	52	<	72	L	112	O	132	l	152	•	172
13	1	1	0	1	CR	13	33	-	53	=	73	M	113	A	133	m	153	•	173
14	1	1	1	0	SO	14	34	.	54	>	74	N	114	U	134	n	154	•	174
15	1	1	1	1	SI	15	35	/	55	?	75	O	115	-	135	o	155	DEL	175

## KEY

ASCII CHARACTER

ESC	1/11
	33
	27
	18

COLUMN/ROW  
OCTAL  
DECIMAL  
HEX



HIGHLIGHTS DIFFERENCES  
FROM ASCII

MA-7421C

Figure A-10 DEC Norwegian/Danish Character Set

**DEC Norwegian/Danish**

The DEC Norwegian/Danish character set differs from the ASCII character set in the following positions:

<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
100/40H	@	LA18	Capital A with umlaut
133/5BH	[	LA52	Capital AE diphthong
134/5CH	\	LO62	Capital O with slash
135/5DH	]	LA28	Capital A with ring
136/5EH	^	LU18	Capital U with umlaut
140/60H	~	LA17	Small a with umlaut
173/7BH	{	LA51	Small ae diphthong
174/7CH		LO61	Small o with slash
175/7DH	}	LA27	Small a with ring
176/7EH	~	LU17	Small u with umlaut

# CHARACTER SETS

BITS		0 0		0 0 1		0 1 0		0 1 1		1 0 0		1 0 1		1 1 0		1 1 1	
B4 B3 B2 B1		COLUMN		1		2		3		4		5		6		7	
ROW		0		1		2		3		4		5		6		7	
0 0 0 0	0	NUL	0 0 0		20 16 10	SP	40 32 20	0	60 48 30		100 64 40	P	120 80 50		140 96 60	p	160 112 70
0 0 0 1	1		1 1 1	DC1 (XON)	21 17 11	!	41 33 21	1	61 49 31	A	101 65 41	Q	121 81 51	a	141 97 61	q	161 113 71
0 0 1 0	2		2 2 2		22 18 12	"	42 34 22	2	62 50 32	B	102 66 42	R	122 82 52	b	142 98 62	r	162 114 72
0 0 1 1	3		3 3 3	DC3 (XOFF)	23 19 13		43 35 23	3	63 51 33	C	103 67 43	S	123 83 53	c	143 99 63	s	163 115 73
0 1 0 0	4		4 4 4		24 20 14	\$	44 36 24	4	64 52 34	D	104 68 44	T	124 84 54	d	144 100 64	t	164 116 74
0 1 0 1	5		5 5 5		25 21 15	%	45 37 25	5	65 53 35	E	105 69 45	U	125 85 55	e	145 101 65	u	165 117 75
0 1 1 0	6		6 6 6		26 22 16	&	46 38 26	6	66 54 36	F	106 70 46	V	126 86 56	f	146 102 66	v	166 118 76
0 1 1 1	7	BEL	7 7 7		27 23 17	'	47 39 27	7	67 55 37	G	107 71 47	W	127 87 57	g	147 103 67	w	167 119 77
1 0 0 0	8	BS	10 8 6	CAN	30 24 18	(	50 40 28	8	70 56 38	H	110 72 48	X	130 88 58	h	150 104 68	x	170 120 78
1 0 0 1	9	HT	11 9 9		31 25 19	)	51 41 29	9	71 57 39	I	111 73 49	Y	131 89 59	i	151 105 69	y	171 121 79
1 0 1 0	10	LF	12 10 A	SUB	32 26 1A	*	52 42 2A	:	72 58 3A	J	112 74 4A	Z	132 90 5A	j	152 106 6A	z	172 122 7A
1 0 1 1	11	VT	13 11 B	ESC	33 27 1B	+	53 43 2B	;	73 59 3B	K	113 75 4B		133 91 5B	k	153 107 6B		173 123 7B
1 1 0 0	12	FF	14 12 C		34 28 1C	,	54 44 2C	<	74 60 3C	L	114 76 4C		134 92 5C	l	154 108 6C		174 124 7C
1 1 0 1	13	CR	15 13 D		35 29 1D	-	55 45 2D	=	75 61 3D	M	115 77 4D		135 93 5D	m	155 109 6D		175 125 7D
1 1 1 0	14	SO	16 14 E		36 30 1E	.	56 46 2E	>	76 62 3E	N	116 78 4E		136 94 5E	n	156 110 6E		176 126 7E
1 1 1 1	15	SI	17 15 F		37 31 1F	/	57 47 2F	?	77 63 3F	O	117 79 4F		137 95 5F	o	157 111 6F	DEL	177 127 7F

## KEY

ASCII CHARACTER	ESC	1/11	COLUMN/ROW		HIGHLIGHTS DIFFERENCES FROM ASCII
		33	OCTAL		
		27	DECIMAL		
		1B	HEX		

MCV87-1478

Figure A-11 DEC Swiss Character Set



**DEC Swiss**


The DEC Swiss character set differs from the ASCII character set in the following positions:

<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
043/23H	#	LU13	Small u with grave accent
100/40H	@	LA13	Small a with grave accent
133/5BH	[	LE11	Small e with acute accent
134/5CH	\	LC41	Small c with cedilla
135/5DH	]	LE15	Small e with circumflex accent
136/5EH	^	LI15	Small i with circumflex accent
137/5FH	_	LE13	Small e with grave accent
140/60H	`	LO15	Small o with circumflex accent
173/7BH	{	LA17	Small a with umlaut mark
174/7CH		LO17	Small o with umlaut mark
175/7DH	}	LU17	Small u with umlaut mark
176/7EH	~	LU15	Small u with circumflex accent

# CHARACTER SETS

ROW	COLUMNS				7												
	0	1	2	3													
BITS		B7 0 B6 0 B5 0	0 0 0 1	0 1 1 0	0 1 1 0	1 0 1 0	1 1 1 1										
0	0 0 0 0	NUL	0 0 0	SP	40 32 20	0	60 48 30	@	100 64 40	P	120 80 50	,	140 96 60	p	160 112 70		
1	0 0 0 1		1 1 1	DC1 (XON)	21 17 11	!	41 33 21	1	61 49 31	A	101 65 41	Q	121 81 51	a	141 97 61	q	161 113 71
2	0 0 1 0		2 2 2		22 18 12	"	42 34 22	2	62 50 32	B	102 66 42	R	122 82 52	b	142 98 62	r	162 114 72
3	0 0 1 1		3 3 3	DC3 (XOFF)	23 19 13	#	43 35 23	3	63 51 33	C	103 67 43	S	123 83 53	c	143 99 63	s	163 115 73
4	0 1 0 0		4 4 4		24 20 14	\$	44 36 24	4	64 52 34	D	104 68 44	T	124 84 54	d	144 100 64	t	164 116 74
5	0 1 0 1		5 5 5		25 21 15	%	45 37 25	5	65 53 35	E	105 69 45	U	125 85 55	e	145 101 65	u	165 117 75
6	0 1 1 0		6 6 6		26 22 16	&	46 38 26	6	66 54 36	F	106 70 46	V	126 86 56	f	146 102 66	v	166 118 76
7	0 1 1 1	BEL	7 7 7		27 23 17	'	47 39 27	7	67 55 37	G	107 71 47	W	127 87 57	g	147 103 67	w	167 119 77
8	1 0 0 0	BS	10 8 8	CAN	30 24 18	(	50 40 28	8	70 56 38	H	110 72 48	X	130 88 58	h	150 104 68	x	170 120 78
9	1 0 0 1	HT	11 9 9		31 25 19	)	51 41 29	9	71 57 39	I	111 73 49	Y	131 89 59	i	151 105 69	y	171 121 79
10	1 0 1 0	LF	12 10 A	SUB	32 26 1A	*	52 42 2A	:	72 58 3A	J	112 74 4A	Z	132 90 5A	j	152 106 6A	z	172 122 7A
11	1 0 1 1	VT	13 11 B	ESC	33 27 1B	+	53 43 2B	;	73 59 3B	K	113 75 4B	æ	133 91 5B	k	153 107 6B	•	173 123 7B
12	1 1 0 0	FF	14 12 C		34 28 1C	,	54 44 2C	<	74 60 3C	L	114 76 4C	ø	134 92 5C	l	154 108 6C	•	174 124 7C
13	1 1 0 1	CR	15 13 D		35 29 1D	-	55 45 2D	=	75 61 3D	M	115 77 4D	å	135 93 5D	m	155 109 6D	•	175 125 7D
14	1 1 1 0	SO	16 14 E		36 30 1E	.	56 46 2E	>	76 62 3E	N	116 78 4E	^	136 94 5E	n	156 110 6E	~	176 126 7E
15	1 1 1 1	SI	17 15 F		37 31 1F	/	57 47 2F	?	77 63 3F	O	117 79 4F	_	137 95 5F	o	157 111 6F	DEL	177 127 7F

**KEY**

ASCII CHARACTER	<b>ESC</b>	1/11	COLUMN/ROW		HIGHLIGHTS DIFFERENCES FROM ASCII
		33	OCTAL		
		27	DECIMAL		
		1B	HEX		

MA-7421D

Figure A-12 Norwegian/Danish Character Set

**Norwegian/Danish**

The Norwegian/Danish character set differs from the ASCII character set in the following positions:

<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
133/5BH	[	LA52	Capital AE diphthong
134/5CH	\	LO62	Capital O with slash
135/5DH	]	LA28	Capital A with ring
173/7BH	{	LA51	Small ae diphthong
174/7CH		LO61	Small o with slash
175/7DH	}	LA27	Small a with ring

---

# CHARACTER SETS

BITS		0 0		0 0 1		0 1 0		0 1 1		1 0 0		1 0 1		1 1 0		1 1 1	
B4 B3 B2 B1		COLUMN		1		2		3		4		5		6		7	
ROW		0		1		2		3		4		5		6		7	
0 0 0 0	0	NUL	0 0 0		20 16 10	SP	40 32 20	0	60 48 30	@	100 64 40	P	120 80 50	'	140 96 60	p	160 112 70
0 0 0 1	1		1 1 1	DC1 (XON)	21 17 11	!	41 33 21	1	61 49 31	A	101 65 41	Q	121 81 51	a	141 97 61	q	161 113 71
0 0 1 0	2		2 2 2		22 18 12	"	42 34 22	2	62 50 32	B	102 66 42	R	122 82 52	b	142 98 62	r	162 114 72
0 0 1 1	3		3 3 3	DC3 (XOFF)	23 19 13	#	43 35 23	3	63 51 33	C	103 67 43	S	123 83 53	c	143 99 63	s	163 115 73
0 1 0 0	4		4 4 4		24 20 14	\$	44 36 24	4	64 52 34	D	104 68 44	T	124 84 54	d	144 100 64	t	164 116 74
0 1 0 1	5		5 5 5		25 21 15	%	45 37 25	5	65 53 35	E	105 69 45	U	125 85 55	e	145 101 65	u	165 117 75
0 1 1 0	6		6 6 6		26 22 16	&	46 38 26	6	66 54 36	F	106 70 46	V	126 86 56	f	146 102 66	v	166 118 76
0 1 1 1	7	BEL	7 7 7		27 23 17	'	47 39 27	7	67 55 37	G	107 71 47	W	127 87 57	g	147 103 67	w	167 119 77
1 0 0 0	8	BS	10 8 8	CAN	30 24 18	(	50 40 28	8	70 56 38	H	110 72 48	X	130 88 58	h	150 104 68	x	170 120 78
1 0 0 1	9	HT	11 9 9		31 25 19	)	51 41 29	9	71 57 39	I	111 73 49	Y	131 89 59	i	151 105 69	y	171 121 79
1 0 1 0	10	LF	12 10 A	SUB	32 26 1A	*	52 42 2A	:	72 58 3A	J	112 74 4A	Z	132 90 5A	j	152 106 6A	z	172 122 7A
1 0 1 1	11	VT	13 11 B	ESC	33 27 1B	+	53 43 2B	;	73 59 3B	K	113 75 4B	À	133 91 5B	k	153 107 6B		173 123 7B
1 1 0 0	12	FF	14 12 C		34 28 1C	,	54 44 2C	<	74 60 3C	L	114 76 4C	Ã	134 92 5C	l	154 108 6C		174 124 7C
1 1 0 1	13	CR	15 13 D		35 29 1D	-	55 45 2D	=	75 61 3D	M	115 77 4D	Ä	135 93 5D	m	155 109 6D		175 125 7D
1 1 1 0	14	SO	16 14 E		36 30 1E	.	56 46 2E	>	76 62 3E	N	116 78 4E	Å	136 94 5E	n	156 110 6E		176 126 7E
1 1 1 1	15	SI	17 15 F		37 31 1F	/	57 47 2F	?	77 63 3F	O	117 79 4F		137 95 5F	o	157 111 6F	DEL	177 127 7F

## KEY

ASCII CHARACTER

ESC	1/11
	33
	OCTAL
	27
	DECIMAL
	1B
	HEX

 HIGHLIGHTS DIFFERENCES FROM ASCII

MKV87:1480

Figure A-13 DEC Portuguese Character Set

**DEC Portuguese**

The DEC Portuguese character set differs from the ASCII character set in the following positions:


<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
133/5BH	[	LA20	Capital A with tilde
134/5CH	\	LC42	Capital C with cedilla
135/5DH	]	LO20	Capital O with tilde
173/7BH	{	LA19	Small a with tilde
174/7CH		LC41	Small c with cedilla
175/7DH	}	LO19	Small o with tilde

---

# CHARACTER SETS

ROW	COLUMN				0	1	2	3	4	5	6	7						
	BITS																	
	B7	B6	B5	B4	B3	B2	B1											
0	0	0	0	0	NUL	0	0	20	16	SP	40	60	100	P	120	140	p	160
1	0	0	0	1		1	1	21	17	!	41	49	101	Q	121	141	q	161
2	0	0	1	0		2	2	22	18	"	42	50	102	R	122	142	r	162
3	0	0	1	1		3	3	23	19	£	43	51	103	S	123	143	s	163
4	0	1	0	0		4	4	24	20	\$	44	52	104	T	124	144	t	164
5	0	1	0	1		5	5	25	21	%	45	53	105	U	125	145	u	165
6	0	1	1	0		6	6	26	22	&	46	54	106	V	126	146	v	166
7	0	1	1	1	BEL	7	7	27	23	'	47	55	107	W	127	147	w	167
8	1	0	0	0	BS	10	8	30	24	(	50	56	110	X	130	150	x	170
9	1	0	0	1	HT	11	9	31	25	)	51	57	111	Y	131	151	y	171
10	1	0	1	0	LF	12	10	32	26	*	52	58	112	Z	132	152	z	172
11	1	0	1	1	VT	13	11	33	27	+	53	59	113	K	133	153		173
12	1	1	0	0	FF	14	12	34	28	,	54	60	114	L	134	154	~	174
13	1	1	0	1	CR	15	13	35	29	-	55	61	115	M	135	155		175
14	1	1	1	0	SO	16	14	36	30	.	56	62	116	N	136	156	~	176
15	1	1	1	1	SI	17	15	37	31	/	57	63	117	O	137	157	DEL	177

## KEY

ASCII CHARACTER	<b>ESC</b>	1/11	COLUMN/ROW		HIGHLIGHTS DIFFERENCES FROM ASCII
		33	OCTAL		
		27	DECIMAL		
		1B	HEX		

MMV06-1161

Figure A-14 ISO Spanish Character Set

**ISO Spanish**

The ISO Spanish character set differs from the ASCII character set in the following positions:

<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
043/23H	#	SC02	Pound sign
100/40H	@	SM24	Section sign
133/5BH	[	SP03	Inverted exclamation mark
134/5CH	\	LN20	Capital N with tilde
135/5DH	]	SP16	Inverted question mark
173/7BH	{	SM19	Degree sign
174/7CH		LN19	Small n with tilde
175/7DH	}	LC41	Small c with cedilla

# CHARACTER SETS

ROW	BITS				COLUMN		0	1	2	3	4	5	6	7
	B4	B3	B2	B1	B7	B6	B5	0	0	0	1	1	1	1
0	0	0	0	0										
					NUL									
1	0	0	0	1										
2	0	0	1	0										
3	0	0	1	1										
4	0	1	0	0										
5	0	1	0	1										
6	0	1	1	0										
7	0	1	1	1										
8	1	0	0	0										
9	1	0	0	1										
10	1	0	1	0										
11	1	0	1	1										
12	1	1	0	0										
13	1	1	0	1										
14	1	1	1	0										
15	1	1	1	1										

## KEY

ASCII CHARACTER	ESC	1/11	COLUMN/ROW
		33	OCTAL
		27	DECIMAL
		1B	HEX

## SUPPLEMENTAL GRAPHIC SET

MA-10,097L

Figure A-15 DEC Supplemental Graphic Character Set



**DEC Supplemental Graphic**

This graphic character set consists of graphic alphabetic symbols not included in ASCII. Character positions identified as "Reserved for future use" print the error character (reverse question mark). In addition to the error character, there are 81 characters defined by this set.

<b>Octal/Hex Code</b>	<b>ISO 6937 ID Code</b>	<b>Description of Character</b>
041/21H	SP03	Inverted exclamation mark
042/22H	SC04	Cent sign
043/23H	SC02	Pound sign
044/24H		(Reserved for future use)
045/25H	SC05	Yen sign
046/26H		(Reserved for future use)
047/27H	SM24	Section sign
050/28H	SC01	General currency sign
051/29H	SM52	Copyright sign
052/2AH	SM21	Feminine ordinal indicator
053/2BH	SP17	Angle quotation mark left
054/2CH		(Reserved for future use)
055/2DH		(Reserved for future use)
056/2EH		(Reserved for future use)
057/2FH		(Reserved for future use)
060/30H	SM19	Degree sign
061/31H	SA02	Plus/minus sign
062/32H	NS02	Superscript 2
063/33H	NS03	Superscript 3
064/34H		(Reserved for future use)
065/35H	SM1	Micro sign
066/36H	SM25	Paragraph sign, pilcrow
067/37H	SM26	Middle dot
070/38H		(Reserved for future use)
071/39H	NS01	Superscript 1
072/3AH	SM20	Masculine ordinal indicator
073/3BH	SP18	Angle quotation mark right
074/3CH	NF04	Fraction one quarter
075/3DH	NF01	Fraction one half
076/3DH		(Reserved for future use)
077/3FH	SP16	Inverted question mark

## CHARACTER SETS

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100/40H	LA14	Capital A with grave accent
101/41H	LA12	Capital A with acute accent
102/42H	LA16	Capital A with circumflex accent
103/43H	LA20	Capital A with tilde
104/44H	LA18	Capital A with diaeresis or umlaut mark
105/45H	LA28	Capital A with ring
106/46H	LA52	Capital AE diphthong
107/47H	LC42	Capital C with cedilla
110/48H	LE14	Capital E with grave accent
111/49H	LE12	Capital E with acute accent
112/4AH	LE16	Capital E with circumflex accent
113/4BH	LE18	Capital E with diaeresis or umlaut mark
114/4CH	LI14	Capital I with grave accent
115/4DH	LI12	Capital I with acute accent
116/4EH	LI16	Capital I with circumflex accent
117/4FH	LI18	Capital I with diaeresis
120/50H		(Reserved for future use)
121/51H	LN20	Capital N with tilde
122/52H	LO14	Capital O with grave accent
123/53H	LO12	Capital O with acute accent
124/54H	LO16	Capital O with circumflex accent
125/55H	LO20	Capital O with tilde
126/56H	LO18	Capital O with diaeresis or umlaut mark
127/57H	LO52	Capital OE ligature
130/58H	LO62	Capital O with slash
131/59H	LU14	Capital U with grave accent
132/5AH	LU12	Capital U with acute accent
133/5BH	LU16	Capital U with circumflex accent
134/5CH	LU18	Capital U with diaeresis or umlaut mark
135/5DH	LY18	Capital Y with diaeresis or umlaut mark
136/5EH		(Reserved for future use)
137/5FH	LS61	German small sharp s
140/60H	LA13	Small a with grave accent
141/61H	LA11	Small a with acute accent
142/62H	LA15	Small a with circumflex accent
143/63H	LA19	Small a with tilde
144/64H	LA17	Small a with diaeresis or umlaut mark
145/65H	LA27	Small a with ring
146/66H	LA51	Small ae diphthong
147/67H	LC41	Small c with cedilla

150/68H	LE13	Small e with grave accent
151/69H	LE11	Small e with acute accent
152/6AH	LE15	Small e with circumflex accent
153/6BH	LE17	Small e with diaeresis or umlaut mark
154/6CH	LI13	Small i with grave accent
155/6DH	LI1	Small i with acute accent
156/6EH	LI15	Small i with circumflex accent
157/6FH	LI17	Small i with diaeresis
160/70H		(Reserved for future use)
161/71H	LN19	Small n with tilde
162/72H	LO13	Small o with grave accent
163/73H	LO11	Small o with acute accent
164/74H	LO15	Small o with circumflex accent
165/75H	LO19	Small o with tilde
166/76H	LO17	Small o with diaeresis or umlaut mark
167/77H	LO51	Small oe ligature
170/78H	LO61	Small o with slash
171/79H	LU13	Small u with grave accent
172/7AH	LU11	Small u with acute accent
173/7BH	LU15	Small u with circumflex accent
174/7CH	LU17	Small u with diaeresis or umlaut mark
175/7DH	LY17	Small y with diaeresis or umlaut mark
176/7EH		(Reserved for future use)

# CHARACTER SETS

ROW	BITS B4 B3 B2 B1	COLUMN		0		1		2		3		4		5		6		7	
		B7 B6 B5	0 0 0	0 0 0	0 0 1	0 1 0	0 1 1	1 0 0	1 0 1	1 1 0	1 1 1								
0	0 0 0 0	NUL	0 0 0		20 16 10	SP	40 32 20	0	60 48 30	E	100 64 40	P	120 80 50	Å	140 96 60	P	160 112 70		
1	0 0 0 1		1 1 1	DC1 (XON)	21 17 11	!	41 33 21	1	61 49 31	A	101 65 41	Q	121 81 51	a	141 97 67	q	161 113 71		
2	0 0 1 0		2 2 2		22 18 12	"	42 34 22	2	62 50 32	B	102 66 42	R	122 82 52	b	142 98 62	r	162 114 72		
3	0 0 1 1		3 3 3	DC3 (XOFF)	23 19 13	#	43 35 23	3	63 51 33	C	103 67 43	S	123 83 53	c	143 99 63	s	163 115 73		
4	0 1 0 0		4 4 4		24 20 14	\$	44 36 24	4	64 52 34	D	104 68 44	T	124 84 54	d	144 100 64	t	164 116 74		
5	0 1 0 1		5 5 5		25 21 15	%	45 37 25	5	65 53 35	E	105 69 45	U	125 85 55	e	145 101 65	u	165 117 75		
6	0 1 1 0		6 6 6		26 22 16	&	46 38 26	6	66 54 36	F	106 70 46	V	126 86 56	f	146 102 66	v	166 118 76		
7	0 1 1 1	BEL	7 7 7		27 23 17	'	47 39 27	7	67 55 37	G	107 71 47	W	127 87 57	g	147 103 67	w	167 119 77		
8	1 0 0 0	BS	8 8 8	CAN	30 24 18	(	50 40 28	8	70 56 38	H	110 72 48	X	130 88 58	h	150 104 68	x	170 120 78		
9	1 0 0 1	HT	9 9 9		31 25 19	)	51 41 29	9	71 57 39	I	111 73 49	Y	131 89 59	i	151 105 69	y	171 121 79		
10	1 0 1 0	LF	10 10 A	SUB	32 26 1A	*	52 42 2A	:	72 58 3A	J	112 74 4A	Z	132 90 5A	j	152 106 6A	z	172 122 7A		
11	1 0 1 1	VT	11 11 B	ESC	33 27 1B	+	53 43 2B	;	73 59 3B	K	113 75 4B	X	133 91 5B	k	153 107 6B	h	173 123 7B		
12	1 1 0 0	FF	12 12 C		34 28 1C	,	54 44 2C	<	74 60 3C	L	114 76 4C	ö	134 92 5C	l	154 108 6C	ö	174 124 7C		
13	1 1 0 1	CR	13 13 D		35 29 1D	-	55 45 2D	=	75 61 3D	M	115 77 4D	å	135 93 5D	m	155 109 6D	å	175 125 7D		
14	1 1 1 0	SO	14 14 E		36 30 1E	.	56 46 2E	>	76 62 3E	N	116 78 4E	ü	136 94 5E	n	156 110 6E	ü	176 126 7E		
15	1 1 1 1	SI	15 15 F		37 31 1F	/	57 47 2F	?	77 63 3F	O	117 79 4F	—	137 95 5F	o	157 111 6F	DEL	177 127 7F		

## KEY

ASCII CHARACTER

ESC	1/11	COLUMN/ROW
	33	OCTAL
	27	DECIMAL
	1B	HEX

 HIGHLIGHTS DIFFERENCES FROM ASCII

MA-74228

Figure A-16 DEC Swedish Character Set

**DEC Swedish**

The Swedish character set differs from the ASCII character set in the following positions:

<b>Octal/Hex Code</b>	<b>ASCII Symbol</b>	<b>ID</b>	<b>Description</b>
100/40H	@	LE12	Capital E with acute accent
133/5BH	[	LA18	Capital A with umlaut
134/5CH	\	LO18	Capital O with umlaut
135/5DH	]	LA28	Capital A with ring
136/5EH	^	LE18	Capital U with umlaut
140/60H	·	LE11	Small e with acute accent
173/7BH	{	LA17	Small a with umlaut
174/7CH		LO17	Small o with umlaut
175/7DH	}	LU17	Small a with ring
176/7EH	~	LU17	Small u with umlaut

# CHARACTER SETS

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

**LEGEND**

CHARACTER	A	CODES	101 65 41	301 193 C1	OCTAL DECIMAL HEX
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\* NOTE:  
WHEN SET IS MAPPED INTO GR,  
BIT B8 IS 1 (V2 ONLY).

MLV88-1159

Figure A-17 DEC Technical Character Set

**DEC Technical**

The DEC Technical character set has 94 characters. It conforms to ANSI X3.41 and ISO 2022 standards for graphic character sets. This set contains Greek letters, mathematical symbols, and logical symbols. In addition, it contains component characters for constructing larger mathematical symbols on character cell devices, such as large integral and summation signs.

Software outputs DEC Technical characters to the terminal by using the ANSI/ISO SINGLE SHIFT 3 (SS3) nonlocking shift control function.

This set does not duplicate any characters in the ASCII or DEC Supplemental sets. It has nine positions reserved for future standardization (not counting the corners 2/0 and 7/15).

This printer conforms to the following:

1. The printer responds to the designating escape sequence for the DEC Technical character set; it does not designate or invoke the DEC Technical character set by default.
2. The printer images the positions in the DEC technical set that are reserved for future standardization as the error character (reverse question mark).
3. The printer images the component characters so that adjacent component characters form connected lines at a vertical pitch of six lines per inch and a horizontal pitch of ten characters per inch.

## DEC Technical (Cont)

This specification defines the names and codes for the graphic characters of the DEC Technical character set.

DEC Coding	Name
------------	------

---

### Uppercase Greek

SS3 4/4	Capital delta, triangle
SS3 4/6	Capital phi
SS3 4/7	Capital gamma
SS3 4/10	Capital theta
SS3 4/12	Capital lambda
SS3 5/0	Capital pi, product
SS3 5/1	Capital psi
SS3 5/3	Capital sigma, summation
SS3 5/7	Capital omega, Ohm sign
SS3 5/8	Capital xi
SS3 5/9	Capital epsilon

### Lowercase Greek

SS3 6/1	Small alpha
SS3 6/2	Small beta
SS3 6/3	Small chi
SS3 6/4	Small delta
SS3 6/5	Small epsilon
SS3 6/6	Small phi
SS3 6/7	Small gamma
SS3 6/8	Small eta
SS3 6/9	Small iota
SS3 6/10	Small theta
SS3 6/11	Small kappa
SS3 6/12	Small lambda
SS3 6/14	Small nu
SS3 7/0	Small pi
SS3 7/1	Small psi
SS3 7/2	Small rho
SS3 7/3	Small sigma
SS3 7/4	Small tau



SS3 7/7	Small omega
SS3 7/8	Small xi
SS3 7/9	Small epsilon
SS3 7/10	Small zeta

**Mathematical**

SS3 3/12	Less than or equal
SS3 3/13	Not equal
SS3 3/14	Greater than or equal
SS3 3/15	Integral
SS3 4/1	Variation, proportional to (note 1)
SS3 4/2	Infinity
SS3 4/3	Division, divided by
SS3 4/5	Nabla, del
SS3 4/8	Is approximate to
SS3 4/9	Similar or equal to
SS3 4/11	Times, cross product
SS3 5/6	Radical
SS3 6/15	Partial derivative
SS3 7/6	Function
SS3 7/11	Left arrow
SS3 7/12	Upward arrow
SS3 7/13	Right arrow
SS3 7/14	Downward arrow

**Logic**

SS3 4/0	Therefore
SS3 4/13	If and only if
SS3 4/14	Implies
SS3 4/15	Identical to
SS3 5/10	Is included in
SS3 5/11	Includes
SS3 5/12	Intersection
SS3 5/13	Union
SS3 5/14	Logical and
SS3 5/15	Logical or
SS3 6/0	Logical not

## CHARACTER SETS

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### Component Characters (DEC Technical)

The following characters are designed to connect to adjacent character cells at 10 characters/inch and 6 lines/inch. This design allows formation of technical characters that can occupy several vertically adjacent and/or horizontally adjacent character positions.

DEC Coding	Name
SS3 2/1	Left radical
SS3 2/2	Top left radical
SS3 2/3	Horizontal connector
SS3 2/4	Top integral
SS3 2/5	Bottom integral
SS3 2/6	Vertical connector
SS3 2/7	Top left square bracket
SS3 2/8	Bottom left square bracket
SS3 2/9	Top right square bracket
SS3 2/10	Bottom right square bracket
SS3 2/11	Top left parenthesis
SS3 2/12	Bottom left parenthesis
SS3 2/13	Top right parenthesis
SS3 2/14	Bottom right parenthesis
SS3 2/15	Left middle curly brace
SS3 3/0	Right middle curly brace
SS3 3/1	Top left summation
SS3 3/2	Bottom left summation
SS3 3/3	Top vertical summation connector
SS3 3/4	Bottom vertical summation connector
SS3 3/5	Top right summation
SS3 3/6	Bottom right summation
SS3 3/7	Right middle summation

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ROW	BITS B4 B3 B2 B1	COLUMN															
		0	1	2	3	4	5	6	7								
		B7 0 B6 0 B5 0	0 0 0	0 0 1	0 1 0	0 1 1	1 0 0	1 0 1	1 1 0	1 1 1							
0	0 0 0 0	NUL	0 0 0	20 16 10	SP	40 32 20	0	60 48 30	@	100 64 40	P	120 80 50	↑	140 96 60	←	160 112 70	
1	0 0 0 1		1 1 1	DC1 (XON)	21 17 11	!	41 33 21	1	61 49 31	A	101 65 41	Q	121 81 51	↓	141 97 61	→	161 113 71
2	0 0 1 0		2 2 2		22 18 12	"	42 34 22	2	62 50 32	B	102 66 42	R	122 82 52	↑	142 98 62	←	162 114 72
3	0 0 1 1		3 3 3	DC3 (XOFF)	23 19 13	#	43 35 23	3	63 51 33	C	103 67 43	S	123 83 53	↓	143 99 63	→	163 115 73
4	0 1 0 0		4 4 4		24 20 14	\$	44 36 24	4	64 52 34	D	104 68 44	T	124 84 54	↑	144 100 64	←	164 116 74
5	0 1 0 1		5 5 5		25 21 15	%	45 37 25	5	65 53 35	E	105 69 45	U	125 85 55	↓	145 101 65	→	165 117 75
6	0 1 1 0		6 6 6		26 22 16	&	46 38 26	6	66 54 36	F	106 70 46	V	126 86 56	↑	146 102 66	←	166 118 76
7	0 1 1 1	BEL	7 7 7		27 23 17	'	47 39 27	7	67 55 37	G	107 71 47	W	127 87 57	↓	147 103 67	→	167 119 77
8	1 0 0 0	BS	10 8 8	CAN	30 24 18	(	50 40 28	8	70 56 38	H	110 72 48	X	130 88 58	↑	150 104 68	←	170 120 78
9	1 0 0 1	HT	11 9 9		31 25 19	)	51 41 29	9	71 57 39	I	111 73 49	Y	131 89 59	↓	151 105 69	→	171 121 79
10	1 0 1 0	LF	12 10 A	SUB	32 26 1A	*	52 42 2A	:	72 58 3A	J	112 74 4A	Z	132 90 6A	↑	152 106 6A	←	172 122 7A
11	1 0 1 1	VT	13 11 B	ESC	33 27 1B	+	53 43 2B	;	73 59 3B	K	113 75 4B	[	133 91 5B	↓	153 107 6B	→	173 123 7B
12	1 1 0 0	FF	14 12 C		34 28 1C	,	54 44 2C	<	74 60 3C	L	114 76 4C	\	134 92 5C	↑	154 108 6C	←	174 124 7C
13	1 1 0 1	CR	15 13 D		35 29 1D	-	55 45 2D	=	75 61 3D	M	115 77 4D	]	135 93 5D	↓	155 109 6D	→	175 125 7D
14	1 1 1 0	SO	16 14 E		36 30 1E	.	56 46 2E	>	76 62 3E	N	116 78 4E	^	136 94 5E	↑	156 110 6E	←	176 126 7E
15	1 1 1 1	SI	17 15 F		37 31 1F	/	57 47 2F	?	77 63 3F	O	117 79 4F	(BLANK)	137 95 5F	↓	157 111 6F	→	177 127 7F

KEY

ASCII CHARACTER	ESC	1/11 33 27 1B	COLUMN/ROW OCTAL DECIMAL HEX	HIGHLIGHTS DIFFERENCES FROM ASCII
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Figure A-18 VT100 Line Drawing Character Set

### VT100 Line Drawing

This graphic character set contains 62 of the ASCII graphic symbols and 32 special graphic symbols. The special graphic symbols of this character set are specified by Table 3-9 of the VT100 User Guide. ISO 6937 ID codes are listed for characters with the same graphic symbol. The line drawing characters of this set span 1/10 inch horizontally and 1/6 inch vertically. Thus these characters connect when printed at the default pitches of 10 characters/inch and 6 lines/inch. These line drawing characters are identified by "\*" in the following table.

The VT100 Line Drawing character set differs from the ASCII character set in the following positions:

Octal/Hex Code	ASCII Symbol	ISO 6937 ID Code	Description
137/5FH	—		Blank
140/60H	`		Solid diamond
141/61H*	a		Checkerboard
142/62H	b		"HT"
143/63H	c		"FF"
144/64H	d		"CR"
145/65H	e		"LF"
146/66H	f	SM19 (Note 2)	Degree sign
147/67H	g	SA02 (Note 2)	Plus/minus sign
150/68H	h		"NL"
151/69H	i		"VT"
152/6AH*	j		Lower-right corner
153/6BH*	k		Upper-right corner
154/6CH*	l		Upper-left corner
155/6DH*	m		Lower-left corner
156/6EH*	n		Crossing lines
157/6FH*	o		Horizontal line, scan 1
160/70H*	p		Horizontal line, scan 3
161/71H*	q		Horizontal line, scan 5
162/72H*	r		Horizontal line, scan 7
163/73H*	s		Horizontal line, scan 9

164/74H*	t		Left "T"
165/75H*	u		Right "T"
166/76H*	v		Bottom "T"
167/77H*	w		TOP "T"
170/78H*	x		Vertical bar
171/79H	y	(Note 1)	Less than or equal sign
172/7AH	z	(Note 1)	Greater than or equal sign
173/7BH	{	(Note 1)	Greek letter pi
174/7CH		(Note 1)	Not equal sign
175/7DH	}	SC02 (Note 2)	Pound sign
176/7EH	~	SM26 (Note 2)	Middle dot

---

- Notes:**
1. These characters are also found in the DEC Technical character set.
  2. These characters are also found in the DEC Supplemental Graphic character set.

# CHARACTER SETS

BITS		0 1		0 1		1 0		1 0		1 0		1 1		1 1									
BITS		GL	GR	GL	GR	GL	GR	GL	GR	GL	GR	GL	GR	GL	GR								
B4	B3	B2	B1	COLUMN		2	10	3		11	4		12	5		13	6		14	7		15	
ROW		0		1		2		3		4		5		6		7		8		9		10	
0	0	0	0	SP				°		À		Ç		à		ä		ö		ø		ÿ	
0	0	0	1	1	ì	±		Á		Ã		Ñ		á		å		õ		ñ		ÿ	
0	0	1	0	2	í	²		Â		Ä		Ò		â		ä		ö		ó		ÿ	
0	0	1	1	3	î	³		Ã		Å		Ó		ã		å		ö		ô		ÿ	
0	1	0	0	4	ï	¼		Ä		Æ		Ô		ä		å		ö		õ		ÿ	
0	1	0	1	5	ï	½		Å		Ç		Õ		å		å		ö		ö		ÿ	
0	1	1	0	6	ï	¾		Æ		È		Ö		æ		æ		ö		ö		ÿ	
0	1	1	1	7	ï	¾		Ç		É		×		ç		ç		ö		÷		ÿ	
1	0	0	0	8	ª	¸		È		Ê		Ø		è		è		ø		ø		ÿ	
1	0	0	1	9	«	¹		É		Ë		Ù		é		é		ø		ù		ÿ	
1	0	1	0	10	«	º		Ê		Ì		Ú		ê		ê		ù		ú		ÿ	
1	0	1	1	11	«	»		Ë		Í		Û		ë		ë		ú		û		ÿ	
1	1	0	0	12	¼	¼		Ì		Î		Ü		ì		ì		û		ü		ÿ	
1	1	0	1	13	½	½		Í		Ï		Ý		í		í		ü		ý		ÿ	
1	1	1	0	14	¾	¾		Î		Ð		Þ		î		î		ý		þ		ÿ	
1	1	1	1	15	¾	¾		Ï		Ñ		ß		ï		ï		þ		ÿ		ÿ	

MKVBR-11-2

Figure A-19 8-Bit ISO Supplemental Character Set

## ISO Supplemental (8-Bit)

The majority of the characters used in the 8-Bit ISO Supplemental character set are the same as in the DEC Supplemental character set. This table identifies characters in the ISO 8-bit set that are different or have different table positions than the DEC Supplemental set.

The 8-Bit ISO Supplemental character set consists of 96 characters. This set is intended for use from the GR set. Therefore, table positions range from A0H to FFH. If this set is loaded into GL by SO control code, the code (7FH) is not recognized as DELETE, but prints "small y with diaeresis".

Octal/Hex Code	DEC Supplemental	8-Bit ISO Supplemental	Notes
240/A0H	(Reserved for future use)	No break space	4
244/A4H	(Reserved for future use)	General currency sign	
246/A6H	(Reserved for future use)	Broken vertical bar	1
250/A8H	General currency sign	Diaeresis	1
254/ACH	(Reserved for future use)	Not sign	1
255/ADH	(Reserved for future use)	Soft hyphen	1,2
256/AEH	(Reserved for future use)	Registered trade mark sign	1
257/AFH	(Reserved for future use)	Macron	1
264/B4H	(Reserved for future use)	Acute accent	1
268/B8H	(Reserved for future use)	Cedilla	1
276/BEH	(Reserved for future use)	Vulgar fraction 3/4	1
320/D0H	(Reserved for future use)	Cap. Icelandic letter eth	1
327/D7H	Capital OE ligature	Multiplication sign	1,3
335/DDH	Capital Y with diaeresis	Capital Y with acute accent	1
336/DEH	(Reserved for future use)	Cap. Icelandic letter thorn	1
360/F0H	(Reserved for future use)	Small Icelandic letter eth	1
367/F7H	Small oe ligature	Division sign	1,3
375/FDH	Small y with diaeresis	Small y with acute accent	1
376/FEH	(Reserved for future use)	Small Icelandic letter thorn	1
377/FFH	(Reserved for future use)	Small y with diaeresis	

- Notes:**
1. This character is not found in the DEC Supplemental character set.
  2. This character is distinguishable from the ASCII minus sign (2DH). It is slightly shorter than the minus sign and is centered for use with lower case letters.
  3. This character is vertically centered to match the plus sign, minus sign, and numbers 0 - 9. This character does not touch the base line.
  4. Image this as a space.