

Appendix 5: ASCII Character Equivalents

Like many other computers, the 8080 uses the ASCII (American Standard Code for Information Interchange) code to communicate with peripheral devices. Bits 0 through 6 are used to represent 128 possible characters. Bit 7 is a parity bit; its value may be 0 or 1, or it may be ignored, depending on the parity conventions of a particular device. XYBASIC ignores bit 7 of any character it receives. Appendix 4 details which characters XYBASIC accepts.

The 128 characters fall into four groups. Codes 0 through 31 (hex 0 through 1F) represent control characters. Codes 32 through 63 (hex 20 through 3F) represent special characters and digits. Codes 64 through 95 (hex 40 through 5F) include the upper case alphabetic characters. Finally, codes 96 through 127 (hex 60 through 7F) include the lower case alphabetic characters. The table below gives the decimal, binary and hexadecimal values corresponding to each ASCII character. Some consoles use other characters for a few values; for example, NUL (ASCII 0) is sometimes <control-shift-P> rather than <control-@>.

Decimal	Binary	Hex	Character	ASCII Mnemonic
0	0000 0000	00	<control-@>	NUL
1	0000 0001	01	<control-A>	SOH
2	0000 0010	02	<control-B>	STX
3	0000 0011	03	<control-C>	ETX
4	0000 0100	04	<control-D>	EOT
5	0000 0101	05	<control-E>	ENQ
6	0000 0110	06	<control-F>	ACK
7	0000 0111	07	<control-G>	BEL
8	0000 1000	08	<control-H>	BS
9	0000 1001	09	<control-I>	HT
10	0000 1010	0A	<control-J>	LF
11	0000 1011	0B	<control-K>	VT
12	0000 1100	0C	<control-L>	FF
13	0000 1101	0D	<control-M>	CR
14	0000 1110	0E	<control-N>	SO
15	0000 1111	0F	<control-O>	SI
16	0001 0000	10	<control-P>	DLE
17	0001 0001	11	<control-Q>	DC1
18	0001 0010	12	<control-R>	DC2
19	0001 0011	13	<control-S>	DC3
20	0001 0100	14	<control-T>	DC4
21	0001 0101	15	<control-U>	NAK
22	0001 0110	16	<control-V>	SYN
23	0001 0111	17	<control-W>	ETB
24	0001 1000	18	<control-X>	CAN
25	0001 1001	19	<control-Y>	EM
26	0001 1010	1A	<control-Z>	SUB
27	0001 1011	1B	<control-[>	ESC
28	0001 1100	1C	<control-\>	FS
29	0001 1101	1D	<control-]>	GS
30	0001 1110	1E	<control-^>	RS
31	0001 1111	1F	<control-rubout>	US
32	0010 0000	20	<space>	SP
33	0010 0001	21	!	