

































































	000	001	002	003	004	005	006	007
0	NUL 0000	DLE 0010	SP 0020	0 0030	@ 0040	P 0050	` 0060	p 0070
1	SOH 0001	DC1 0011	! 0021	1 0031	A 0041	Q 0051	a 0061	q 0071
2	STX 0002	DC2 0012	" 0022	2 0032	B 0042	R 0052	b 0062	r 0072
3	ETX 0003	DC3 0013	# 0023	3 0033	C 0043	S 0053	c 0063	s 0073
4	EOT 0004	DC4 0014	\$ 0024	4 0034	D 0044	T 0054	d 0064	t 0074
5	ENQ 0005	NAK 0015	% 0025	5 0035	E 0045	U 0055	e 0065	u 0075
6	ACK 0006	SYN 0016	& 0026	6 0036	F 0046	V 0056	f 0066	v 0076
7	BEL 0007	ETB 0017	' 0027	7 0037	G 0047	W 0057	g 0067	w 0077
8	BS 0008	CAN 0018	(0028	8 0038	H 0048	X 0058	h 0068	x 0078
9	HT 0009	EM 0019) 0029	9 0039	I 0049	Y 0059	i 0069	y 0079
A	LF 000A	SUB 001A	* 002A	: 003A	J 004A	Z 005A	j 006A	z 007A
B	VT 000B	ESC 001B	+ 002B	; 003B	K 004B	[005B	k 006B	{ 007B
C	FF 000C	FS 001C	, 002C	< 003C	L 004C	\ 005C	l 006C	 007C
D	CR 000D	GS 001D	- 002D	= 003D	M 004D] 005D	m 006D	} 007D
E	SO 000E	RS 001E	. 002E	> 003E	N 004E	^ 005E	n 006E	~ 007E
F	SI 000F	US 001F	/ 002F	? 003F	O 004F	_ 005F	o 006F	DEL 007F

C0 controls

Alias names are those for ISO/IEC 6429:1992. Commonly used alternative aliases are also shown.

0000		<control> = NULL	001A		<control> = SUBSTITUTE → FFFD  replacement character
0001		<control> = START OF HEADING	001B		<control> = ESCAPE
0002		<control> = START OF TEXT	001C		<control> = INFORMATION SEPARATOR FOUR = file separator (FS)
0003		<control> = END OF TEXT	001D		<control> = INFORMATION SEPARATOR THREE = group separator (GS)
0004		<control> = END OF TRANSMISSION	001E		<control> = INFORMATION SEPARATOR TWO = record separator (RS)
0005		<control> = ENQUIRY	001F		<control> = INFORMATION SEPARATOR ONE = unit separator (US)
0006		<control> = ACKNOWLEDGE	ASCII punctuation and symbols		
0007		<control> = BELL	<i>Based on ISO/IEC 646.</i>		
0008		<control> = BACKSPACE	0020		SPACE • sometimes considered a control code • other space characters: 2000  –200A 
0009		<control> = CHARACTER TABULATION = horizontal tabulation (HT) = tab	→ 00A0  no-break space		
000A		<control> = LINE FEED (LF) = new line (NL) = end of line (EOL)	→ 200B  zero width space		
000B		<control> = LINE TABULATION = vertical tabulation (VT)	→ 202F  narrow no-break space		
000C		<control> = FORM FEED (FF)	→ 2060  word joiner		
000D		<control> = CARRIAGE RETURN (CR)	→ 2420  symbol for space		
000E		<control> = SHIFT OUT • known as LOCKING-SHIFT ONE in 8-bit environments	→ 2422  blank symbol		
000F		<control> = SHIFT IN • known as LOCKING-SHIFT ZERO in 8-bit environments	→ 2423  open box		
0010		<control> = DATA LINK ESCAPE	→ 3000  ideographic space		
0011		<control> = DEVICE CONTROL ONE	→ FEFF  zero width no-break space		
0012		<control> = DEVICE CONTROL TWO	0021	!	EXCLAMATION MARK = factorial = bang → 00A1  inverted exclamation mark → 01C3  latin letter retroflex click → 203C  double exclamation mark → 203D  interrobang → 26A0  warning sign → 2757  heavy exclamation mark symbol → 2762  heavy exclamation mark ornament → 2E53  medieval exclamation mark → A71D  modifier letter raised exclamation mark
0013		<control> = DEVICE CONTROL THREE	0022	"	QUOTATION MARK = double quote • neutral (vertical), used as opening or closing quotation mark • preferred characters in English for paired quotation marks are 201C “ & 201D ” • 05F4 ” is preferred for gershayim when writing Hebrew → 02BA  modifier letter double prime → 02DD  double acute accent → 02EE  modifier letter double apostrophe → 030B  combining double acute accent → 030E  combining double vertical line above → 05F4  hebrew punctuation gershayim → 201C  left double quotation mark → 201D  right double quotation mark → 2033  double prime → 3003  ditto mark
0014		<control> = DEVICE CONTROL FOUR			
0015		<control> = NEGATIVE ACKNOWLEDGE			
0016		<control> = SYNCHRONOUS IDLE			
0017		<control> = END OF TRANSMISSION BLOCK			
0018		<control> = CANCEL			
0019		<control> = END OF MEDIUM			

- 0023 # **NUMBER SIGN**
 = pound sign (weight)
 = hashtag, hash
 = crosshatch, octothorpe
 • for denoting musical sharp 266F # is preferred
 → 2114 ℔ l b bar symbol
 → 2116 № numero sign
 → 2317 ⇕ viewdata square
 → 266F # music sharp sign
 → 29E3 # equals sign and slanted parallel
- 0024 \$ **DOLLAR SIGN**
 = milréis, escudo
 • used for many peso currencies in Latin America and elsewhere
 • glyph may have one or two vertical bars
 • other currency symbol characters start at 20A0 ₡
 → 00A2 ¢ cent sign
 → 00A4 Ɑ currency sign
 → 20B1 ₱ peso sign
 → 1F4B2 \$ heavy dollar sign
- 0025 % **PERCENT SIGN**
 → 066A ‰ arabic percent sign
 → 2030 ‰ per mille sign
 → 2031 ‰ per ten thousand sign
 → 2052 ‰ commercial minus sign
- 0026 & **AMPERSAND**
 = and
 • originally derived from a ligature of ‘e’ and ‘t’
 → 204A 𐌆 tironian sign et
 → 214B 𐌆 turned ampersand
 → 1F674 & heavy ampersand ornament
- 0027 ' **APOSTROPHE**
 = apostrophe-quote (1.0)
 = single quote
 = APL quote
 • neutral (vertical) glyph with mixed usage
 • 2019 ’ is preferred for apostrophe
 • preferred characters in English for paired quotation marks are 2018 ‘ & 2019 ’
 • 05F3 ’ is preferred for geresh when writing Hebrew
 → 02B9 ’ modifier letter prime
 → 02BC ’ modifier letter apostrophe
 → 02C8 ’ modifier letter vertical line
 → 0301 ´ combining acute accent
 → 030D ´ combining vertical line above
 → 05F3 ’ hebrew punctuation geresh
 → 2018 ‘ left single quotation mark
 → 2019 ’ right single quotation mark
 → 2032 ’ prime
 → A78C ' latin small letter saltillo
- 0028 (**LEFT PARENTHESIS**
 = opening parenthesis (1.0)
- 0029) **RIGHT PARENTHESIS**
 = closing parenthesis (1.0)
 • see discussion on semantics of paired bracketing characters

- 002A * **ASTERISK**
 = star
 • can have five or six spokes
 → 066D ★ arabic five pointed star
 → 203B ✕ reference mark
 → 2042 ✱ asterism
 → 204E * low asterisk
 → 2051 ✱ two asterisks aligned vertically
 → 20F0 ⚡ combining asterisk above
 → 2217 * asterisk operator
 → 26B9 ✱ sextile
 → 2731 ✱ heavy asterisk
 → A673 ☆ slavonic asterisk
 → 1F7B6 ✱ medium six spoked asterisk

ASCII math operator

- 002B + **PLUS SIGN**
 → 02D6 + modifier letter plus sign
 → 2212 − minus sign
 → 2795 ⛶ heavy plus sign
 → FB29 ⛶ hebrew letter alternative plus sign
 → 1F7A2 ⛶ light greek cross

ASCII punctuation

- 002C , **COMMA**
 = the use as decimal or thousands separator is locale dependent
 → 060C ٫ arabic comma
 → 066B ٫ arabic decimal separator
 → 201A ٫ single low-9 quotation mark
 → 2E12 ٫ hypodiastole
 → 2E41 ٫ reversed comma
 → 2E4C ٫ medieval comma
 → 3001 ٫ ideographic comma
- 002D - **HYPHEN-MINUS**
 = hyphen, dash
 = minus sign
 • used generically for hyphen, minus sign or en dash, all of which have dedicated alternatives
 → 00AD ͂ soft hyphen
 → 02D7 - modifier letter minus sign
 → 2010 - hyphen
 → 2011 ͜ non-breaking hyphen
 → 2012 − figure dash
 → 2013 — en dash
 → 2027 · hyphenation point
 → 2043 ▪ hyphen bullet
 → 2212 − minus sign
 → 10191 — roman uncia sign
- 002E . **FULL STOP**
 = period, dot, decimal point
 • the use as decimal point is locale dependent
 • may be rendered as a raised decimal point in old style numbers
 → 00B7 · middle dot
 → 06D4 ٫ arabic full stop
 → 2024 . one dot leader
 → 2026 … horizontal ellipsis
 → 2E33 · raised dot
 → 2E3C ٫ stenographic full stop
 → 3002 ٫ ideographic full stop

002F / **SOLIDUS**
 = slash, forward slash, virgule
 → 0338 ∕ combining long solidus overlay
 → 2044 ⁄ fraction slash
 → 2215 ⁄ division slash
 → 27CB ⁄ mathematical rising diagonal
 → 29F8 ⁄ big solidus
 → 2E4A ⁄ dotted solidus

ASCII digits

0030 0 **DIGIT ZERO**
 ~ 0030 FE00 0 short diagonal stroke form

0031 1 **DIGIT ONE**

0032 2 **DIGIT TWO**
 → 01BB 2 latin letter two with stroke
 → 218A 2 turned digit two

0033 3 **DIGIT THREE**
 → 218B 3 turned digit three
 → A7AB 3 latin capital letter reversed open e

0034 4 **DIGIT FOUR**
 → A72C 4 latin capital letter cuatrillo

0035 5 **DIGIT FIVE**
 → 01BC 5 latin capital letter tone five

0036 6 **DIGIT SIX**

0037 7 **DIGIT SEVEN**

0038 8 **DIGIT EIGHT**

0039 9 **DIGIT NINE**

ASCII punctuation

003A : **COLON**
 • also used to denote division or scale; for that mathematical use 2236 : is preferred
 • in Finnish and Swedish, also used as intra-word punctuation (abbreviation mark)
 → 02D0 : modifier letter triangular colon
 → 02F8 : modifier letter raised colon
 → 0589 : armenian full stop
 → 05C3 : hebrew punctuation sof pasuq
 → 1361 : ethiopic wordspace
 → 1365 : ethiopic colon
 → 205A : two dot punctuation
 → 205D : tricolon
 → 2236 : ratio
 → A789 : modifier letter colon
 → FE30 : presentation form for vertical two dot leader

003B ; **SEMICOLON**
 • this, and not 037E ;, is the preferred character for 'Greek question mark'
 → 037E ; greek question mark
 → 061B ; arabic semicolon
 → 204F ; reversed semicolon
 → 2E35 ; turned semicolon

ASCII mathematical operators

Other mathematical operators start at 2200.

003C < **LESS-THAN SIGN**
 • paired with 003E > for ASCII-based angle bracket markup conventions
 → 02C2 < modifier letter left arrowhead
 → 2039 < single left-pointing angle quotation mark
 → 2329 < left-pointing angle bracket
 → 27E8 < mathematical left angle bracket
 → 3008 < left angle bracket

003D = **EQUALS SIGN**
 • other related characters: 2241 ≈ —2263 ≡
 → 1400 = canadian syllabics hyphen
 → 2248 ≈ almost equal to
 → 2260 ≠ not equal to
 → 2261 ≡ identical to
 → 2E40 = double hyphen
 → 30A0 = katakana-hiragana double hyphen
 → A78A = modifier letter short equals sign
 → FE66 = small equals sign
 → 10190 = roman sextans sign
 → 1F7F0 = heavy equals sign

003E > **GREATER-THAN SIGN**
 → 02C3 > modifier letter right arrowhead
 → 203A > single right-pointing angle quotation mark
 → 232A > right-pointing angle bracket
 → 27E9 > mathematical right angle bracket
 → 3009 > right angle bracket

ASCII punctuation

003F ? **QUESTION MARK**
 → 00BF ¿ inverted question mark
 → 037E ; greek question mark
 → 061F ؟ arabic question mark
 → 203D ? interrobang
 → 2047 ?? double question mark
 → 2753 ? black question mark ornament
 → 2BD1 ⚡ uncertainty sign
 → 2E2E ? reversed question mark
 → 2E54 ? medieval question mark
 → FFFD ? replacement character

0040 @ **COMMERCIAL AT**
 = at sign
 = arroba (old Spanish unit of weight)
 → 24D0 @ circled latin small letter a

Uppercase Latin alphabet

0041 A **LATIN CAPITAL LETTER A**

0042 B **LATIN CAPITAL LETTER B**
 → 212C B script capital b

0043 C **LATIN CAPITAL LETTER C**
 → 03F9 C greek capital lunate sigma symbol
 → 2102 C double-struck capital c
 → 2103 °C degree celsius
 → 212D C black-letter capital c
 → 216D C roman numeral one hundred

0044 D **LATIN CAPITAL LETTER D**
 → 216E D roman numeral five hundred

0045 E **LATIN CAPITAL LETTER E**
 → 0190 E latin capital letter open e
 → 2107 E euler constant
 → 2130 E script capital e

0046 F **LATIN CAPITAL LETTER F**
 → 2109 °F degree fahrenheit
 → 2131 F script capital f
 → 2132 F turned capital f

0047 G **LATIN CAPITAL LETTER G**

0048 H **LATIN CAPITAL LETTER H**
 → 210B H script capital h
 → 210C H black-letter capital h
 → 210D H double-struck capital h

0049	I	LATIN CAPITAL LETTER I • Turkish and Azerbaijani use 0131 ı for lowercase → 0130 İ latin capital letter i with dot above → 2110 ℑ script capital i → 2111 Ꝛ black-letter capital i → 2160 I roman numeral one
004A	J	LATIN CAPITAL LETTER J
004B	K	LATIN CAPITAL LETTER K → 212A ℔ kelvin sign
004C	L	LATIN CAPITAL LETTER L → 2112 ℒ script capital l
004D	M	LATIN CAPITAL LETTER M → 2133 ℓ script capital m → 216F M roman numeral one thousand
004E	N	LATIN CAPITAL LETTER N → 2115 ℕ double-struck capital n
004F	O	LATIN CAPITAL LETTER O
0050	P	LATIN CAPITAL LETTER P → 2118 ℙ script capital p → 2119 ℙ double-struck capital p
0051	Q	LATIN CAPITAL LETTER Q → 051A Q cyrillic capital letter qa → 211A Q double-struck capital q → 213A Q̇ rotated capital q
0052	R	LATIN CAPITAL LETTER R → 211B ℞ script capital r → 211C ℞ black-letter capital r → 211D ℞ double-struck capital r
0053	S	LATIN CAPITAL LETTER S
0054	T	LATIN CAPITAL LETTER T
0055	U	LATIN CAPITAL LETTER U
0056	V	LATIN CAPITAL LETTER V → 2164 V roman numeral five
0057	W	LATIN CAPITAL LETTER W → 051C W cyrillic capital letter we
0058	X	LATIN CAPITAL LETTER X → 2169 X roman numeral ten
0059	Y	LATIN CAPITAL LETTER Y
005A	Z	LATIN CAPITAL LETTER Z → 2124 ℤ double-struck capital z → 2128 Ꝟ black-letter capital z

ASCII punctuation and symbols

005B	[LEFT SQUARE BRACKET = opening square bracket (1.0) • other bracket characters: 27E6 ⌈ −27EB ⌋ , 2983 ⌊ −2998 ⌋ , 3008 ⌈ −301B ⌋
005C	\	REVERSE SOLIDUS = backslash → 20E5 ℵ combining reverse solidus overlay → 2216 ∖ set minus → 27CD ∖ mathematical falling diagonal → 29F9 ℵ big reverse solidus
005D]	RIGHT SQUARE BRACKET = closing square bracket (1.0)

005E	^	CIRCUMFLEX ACCENT • this is a spacing character • used in ASCII-based representation of exponentiation → 02C4 ^ modifier letter up arrowhead → 02C6 ^ modifier letter circumflex accent → 0302 ˆ combining circumflex accent → 2038 ⤴ caret → 2227 ∧ logical and → 2303 ⤵ up arrowhead
005F	_	LOW LINE = spacing underscore (1.0) • this is a spacing character • joins with adjacent instances of itself → 02CD _ modifier letter low macron → 0331 ̲ combining macron below → 0332 ̳ combining low line → 2017 ≡ double low line → FE2D ̶ combining conjoining macron below
0060	`	GRAVE ACCENT = backtick, backquote • this is a spacing character • in some technical contexts functions as opening quote, paired with apostrophe → 00B4 ´ acute accent → 02CB ` modifier letter grave accent → 0300 ̀ combining grave accent → 1FEF ΀ greek varia → 2018 ‘ left single quotation mark → 2035 ′ reversed prime

Lowercase Latin alphabet

0061	a	LATIN SMALL LETTER A → 0251 ɑ latin small letter alpha
0062	b	LATIN SMALL LETTER B
0063	c	LATIN SMALL LETTER C → 03F2 Ϸ greek lunate sigma symbol → 1D04 ċ latin letter small capital c
0064	d	LATIN SMALL LETTER D → 0501 ḏ cyrillic small letter komi de
0065	e	LATIN SMALL LETTER E → 212E ℰ estimated symbol → 212F ℷ script small e → AB32 ɛ latin small letter blackletter e
0066	f	LATIN SMALL LETTER F → 0192 ƒ latin small letter f with hook → AB35 ɸ latin small letter lenis f
0067	g	LATIN SMALL LETTER G → 0261 ɡ latin small letter script g → 210A ɡ̇ script small g
0068	h	LATIN SMALL LETTER H → 04BB Һ cyrillic small letter shha → 210E ℏ planck constant
0069	i	LATIN SMALL LETTER I • Turkish and Azerbaijani use 0130 ı for uppercase → 0131 ı latin small letter dotless i → 2071 ˆ superscript latin small letter i → 1D6A4 ℹ mathematical italic small dotless i
006A	j	LATIN SMALL LETTER J → 0237 ĵ latin small letter dotless j → 03F3 ϳ greek letter yot → 1D6A5 ℹ mathematical italic small dotless j
006B	k	LATIN SMALL LETTER K

006C	l	LATIN SMALL LETTER L
		→ 2113 ℓ script small l
		→ 1D4C1 ℓ mathematical script small l
006D	m	LATIN SMALL LETTER M
006E	n	LATIN SMALL LETTER N
		→ 207F ⁱ superscript latin small letter n
006F	o	LATIN SMALL LETTER O
		→ 1D0F o latin letter small capital o
		→ 2134 ø script small o
		→ AB3D o latin small letter blackletter o
0070	p	LATIN SMALL LETTER P
0071	q	LATIN SMALL LETTER Q
		→ 051B q cyrillic small letter qa
0072	r	LATIN SMALL LETTER R
0073	s	LATIN SMALL LETTER S
		→ 017F ſ latin small letter long s
		→ A731 s latin letter small capital s
0074	t	LATIN SMALL LETTER T
0075	u	LATIN SMALL LETTER U
0076	v	LATIN SMALL LETTER V
0077	w	LATIN SMALL LETTER W
		→ 051D w cyrillic small letter we
		→ 1D21 w latin letter small capital w
0078	x	LATIN SMALL LETTER X
		→ 00D7 × multiplication sign
0079	y	LATIN SMALL LETTER Y
007A	z	LATIN SMALL LETTER Z
		→ 01B6 z latin small letter z with stroke
		→ 1D22 z latin letter small capital z

ASCII punctuation and symbols

007B	{	LEFT CURLY BRACKET
		= opening curly bracket (1.0)
		= left brace
007C		VERTICAL LINE
		= vertical bar, pipe
		• used in pairs to indicate absolute value
		• also used as an unpaired separator or as a fence
		→ 00A6 † broken bar
		→ 01C0 latin letter dental click
		→ 05C0 hebrew punctuation paseq
		→ 0964 devanagari danda
		→ 20D2 ‡ combining long vertical line overlay
		→ 2223 divides
		→ 2758 light vertical bar
007D	}	RIGHT CURLY BRACKET
		= closing curly bracket (1.0)
		= right brace
007E	~	TILDE
		• this is a spacing character
		→ 02DC ~ small tilde
		→ 0303 º combining tilde
		→ 0334 º combining tilde overlay
		→ 2053 ~ swung dash
		→ 223C ~ tilde operator
		→ 2E1B ˜ tilde with ring above
		→ 2E2F ' vertical tilde
		→ 301C ~ wave dash
		→ FF5E ~ fullwidth tilde

Control character

007F		<control>
		= DELETE