Letterlike Symbols

Range: 2100–214F

This file contains an excerpt from the character code tables and list of character names for
The Unicode Standard, Version 15.0

This file may be changed at any time without notice to reflect errata or other updates to the Unicode Standard.
See https://www.unicode.org/errata/ for an up-to-date list of errata.

See https://www.unicode.org/charts/ for access to a complete list of the latest character code charts.
See https://www.unicode.org/charts/PDF/Unicode-15.0/ for charts showing only the characters added in Unicode 15.0.
See https://www.unicode.org/Public/15.0.0/charts/ for a complete archived file of character code charts for Unicode 15.0.
See https://www.unicode.org/charts/About.html#Conventions for conventions used in these code charts, and other general information.

Disclaimer

These charts are provided as the online reference to the character contents of the Unicode Standard, Version 15.0 but do not provide all the information needed to fully support individual scripts using the Unicode Standard. For a complete understanding of the use of the characters contained in this file, please consult the appropriate sections of The Unicode Standard, Version 15.0, online at https://www.unicode.org/versions/Unicode15.0.0/, as well as Unicode Standard Annexes #9, #11, #14, #15, #24, #29, #31, #34, #38, #41, #42, #44, #45, and #50, the other Unicode Technical Reports and Standards, and the Unicode Character Database, which are available online.

See https://www.unicode.org/ucd/ and https://www.unicode.org/reports/

A thorough understanding of the information contained in these additional sources is required for a successful implementation.

Copying characters from the character code tables or list of character names is not recommended, because for production reasons the PDF files for the code charts cannot guarantee that the correct character codes will always be copied.

Fonts

The shapes of the reference glyphs used in these code charts are not prescriptive. Considerable variation is to be expected in actual fonts. The particular fonts used in these charts were provided to the Unicode Consortium by a number of different font designers, who own the rights to the fonts.

See https://www.unicode.org/charts/fonts.html for a list.

Terms of Use

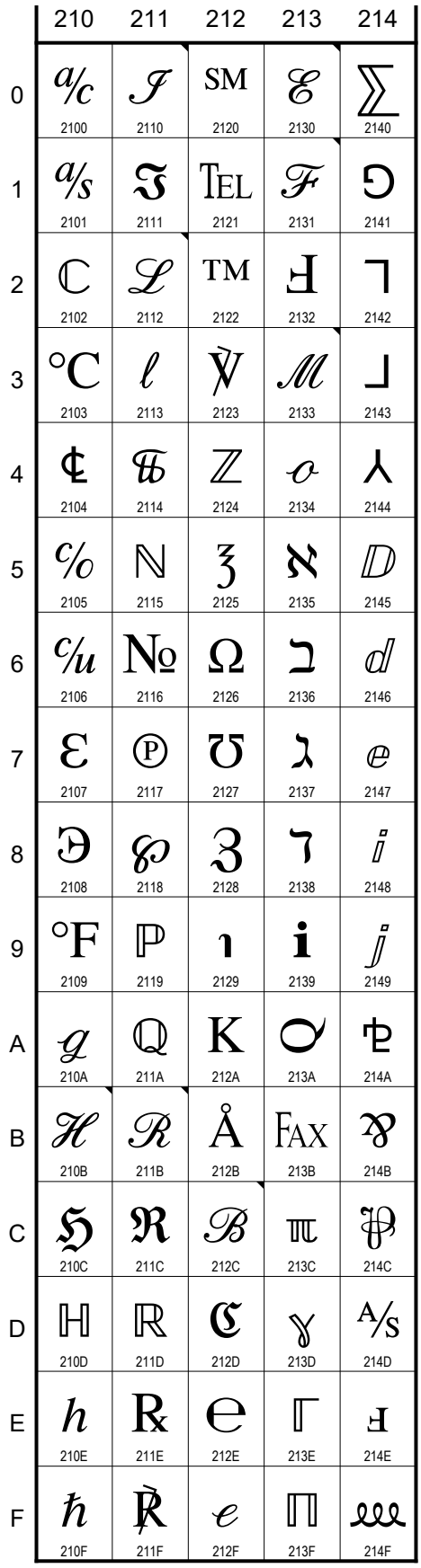
You may freely use these code charts for personal or internal business uses only. You may not incorporate them either wholly or in part into any product or publication, or otherwise distribute them without express written permission from the Unicode Consortium. However, you may provide links to these charts.

The fonts and font data used in production of these code charts may NOT be extracted, or used in any other way in any product or publication, without permission or license granted by the typeface owner(s).

The Unicode Consortium is not liable for errors or omissions in this file or the standard itself. Information on characters added to the Unicode Standard since the publication of the most recent version of the Unicode Standard, as well as on characters currently being considered for addition to the Unicode Standard can be found on the Unicode web site.

See https://www.unicode.org/pending/pending.html and https://www.unicode.org/alloc/Pipeline.html.

Copyright © 1991-2022 Unicode, Inc. All rights reserved.



The Unicode Standard, Version 15.0, Copyright © 1991-2022 Unicode, Inc. All rights reserved.

Letterlike symbols

Some of the letterlike symbols are intended to complete the set of mathematical alphanumeric symbols starting at 1D400.

2100 ℀ ACCOUNT OF
≈ 0061 a 002F / 0063 c

2101 ℁ ADDRESSED TO THE SUBJECT
= aux soins (de)
→ 214D ⅍ aktieselskab
≈ 0061 a 002F / 0073 s

2102 ℂ DOUBLE-STRUCK CAPITAL C
= the set of complex numbers
≈ <font> 0043 C latin capital letter c

2103 ℃ DEGREE CELSIUS
= degrees centigrade
≈ 00B0 ° 0043 C

2104 ¢ CENTRE LINE SYMBOL
= clone

2105 ℅ CARE OF
≈ 0063 c 002F / 006F o

2106 ℆ CADA UNA
• Spanish for "each one"
≈ 0063 c 002F / 0075 u

2107 ℇ EULER CONSTANT
→ 0045 E latin capital letter e
≈ 0190 Ɛ latin capital letter open e

2108 ℈ SCRUPLE

2109 ℉ DEGREE FAHRENHEIT
≈ 00B0 ° 0046 F

210A ℊ SCRIPT SMALL G
= real number symbol
≈ <font> 0067 g latin small letter g

210B ℋ SCRIPT CAPITAL H
= Hamiltonian operator
~ 210B FE00 ℋ chancery style
~ 210B FE01 ℋ roundhand style
≈ <font> 0048 H latin capital letter h

210C ℌ BLACK-LETTER CAPITAL H
= Hilbert space
≈ <font> 0048 H latin capital letter h

210D ℍ DOUBLE-STRUCK CAPITAL H
≈ <font> 0048 H latin capital letter h

210E ℎ PLANCK CONSTANT
= height, specific enthalpy, ...
• simply a mathematical italic h; this character's name results from legacy usage
≈ <font> 0068 h latin small letter h

210F ℏ PLANCK CONSTANT OVER TWO PI
= reduced Planck constant, Dirac constant
→ 045B ћ cyrillic small letter tshe
≈ <font> 0127 ħ latin small letter h with stroke

2110 ℐ SCRIPT CAPITAL I
~ 2110 FE00 ℐ chancery style
~ 2110 FE01 ℐ roundhand style
≈ <font> 0049 I latin capital letter i

2111 ℑ BLACK-LETTER CAPITAL I
= imaginary part
≈ <font> 0049 I latin capital letter i

2112 ℒ SCRIPT CAPITAL L
= Laplace transform
~ 2112 FE00 ℒ chancery style
~ 2112 FE01 ℒ roundhand style
≈ <font> 004C L latin capital letter l

2113 ℓ SCRIPT SMALL L
= mathematical symbol 'ell'
= liter (traditional symbol)
• despite its character name, this symbol is derived from a special italicized version of the small letter l
• the SI recommended symbol for liter is 006C l or 004C L
→ 1D4C1 𝓁 mathematical script small l
≈ <font> 006C l latin small letter l

2114 ℔ L B BAR SYMBOL
= pounds
→ 0023 # number sign

2115 ℕ DOUBLE-STRUCK CAPITAL N
= natural number
• a glyph variant with doubled vertical strokes exists
≈ <font> 004E N latin capital letter n

2116 № NUMERO SIGN
→ 0023 # number sign
→ 00BA º masculine ordinal indicator
≈ 004E N 006F o

2117 ℗ SOUND RECORDING COPYRIGHT
= published
= phonorecord sign
→ 00A9 © copyright sign
→ 24C5 Ⓟ circled latin capital letter p

2118 ℘ SCRIPT CAPITAL P
※ WEIERSTRASS ELLIPTIC FUNCTION
• actually this has the form of a lowercase calligraphic p, despite its name

2119 ℙ DOUBLE-STRUCK CAPITAL P
≈ <font> 0050 P latin capital letter p

211A ℚ DOUBLE-STRUCK CAPITAL Q
= the set of rational numbers
≈ <font> 0051 Q latin capital letter q

211B ℛ SCRIPT CAPITAL R
= Riemann Integral
~ 211B FE00 ℛ chancery style
~ 211B FE01 ℛ roundhand style
≈ <font> 0052 R latin capital letter r

211C ℜ BLACK-LETTER CAPITAL R
= real part
≈ <font> 0052 R latin capital letter r

211D ℝ DOUBLE-STRUCK CAPITAL R
= the set of real numbers
≈ <font> 0052 R latin capital letter r

211E ℞ PRESCRIPTION TAKE
= recipe
= cross ratio

211F ℟ RESPONSE

2120 ℠ SERVICE MARK
≈ <super> 0053 S 004D M

2121 ℡ TELEPHONE SIGN
• typical forms for this symbol may use lowercase, small caps or superscripted letter shapes
→ 260E ☎ black telephone
→ 2706 ✆ telephone location sign
→ 1F4DE 📞 telephone receiver
≈ 0054 T 0045 E 004C L

2122 ™ TRADE MARK SIGN
→ 1F12E 🄮 circled wz
≈ <super> 0054 T 004D M

2123 ℣ VERSICLE

The Unicode Standard, Version 15.0, Copyright © 1991-2022 Unicode, Inc. All rights reserved.

2124 ℤ DOUBLE-STRUCK CAPITAL Z
= the set of integers
≈ <font> 005A Z latin capital letter z

2125 ℥ OUNCE SIGN
→ 0292 ʒ latin small letter ezh
→ 1F773 🝳 alchemical symbol for half ounce

2126 Ω OHM SIGN
• SI unit of resistance, named after G. S. Ohm, German physicist
• preferred representation is 03A9 Ω
→ 260A ☊ ascending node
≡ 03A9 Ω greek capital letter omega

2127 ℧ INVERTED OHM SIGN
= mho
• archaic unit of conductance (= the SI unit siemens)
• typographically a turned greek capital letter omega
→ 01B1 Ʊ latin capital letter upsilon
→ 03A9 Ω greek capital letter omega
→ 260B ☋ descending node

2128 ℨ BLACK-LETTER CAPITAL Z
≈ <font> 005A Z latin capital letter z

2129 ℩ TURNED GREEK SMALL LETTER IOTA
• unique element fulfilling a description (logic)
→ 03B9 ι greek small letter iota

212A K KELVIN SIGN
≡ 004B K latin capital letter k

212B Å ANGSTROM SIGN
• non SI length unit (=0.1 nm) named after A. J. Ångström, Swedish physicist
• preferred representation is 00C5 Å
≡ 00C5 Å latin capital letter a with ring above

212C ℬ SCRIPT CAPITAL B
= Bernoulli function
~ 212C FE00 ℬ chancery style
~ 212C FE01 ℬ roundhand style
≈ <font> 0042 B latin capital letter b

212D ℭ BLACK-LETTER CAPITAL C
≈ <font> 0043 C latin capital letter c

212E ℮ ESTIMATED SYMBOL
• used in European packaging
→ 0065 e latin small letter e

212F ℯ SCRIPT SMALL E
= error
= natural exponent
≈ <font> 0065 e latin small letter e

2130 ℰ SCRIPT CAPITAL E
= emf (electromotive force)
~ 2130 FE00 ℰ chancery style
~ 2130 FE01 ℰ roundhand style
≈ <font> 0045 E latin capital letter e

2131 ℱ SCRIPT CAPITAL F
= Fourier transform
~ 2131 FE00 ℱ chancery style
~ 2131 FE01 ℱ roundhand style
≈ <font> 0046 F latin capital letter f

2132 Ⅎ TURNED CAPITAL F
= Claudian digamma inversum
• lowercase is 214E ⅎ
→ 0046 F latin capital letter f
→ 03DC Ϝ greek letter digamma

2133 ℳ SCRIPT CAPITAL M
= M-matrix (physics)
= German Mark currency symbol, before WWII
• when used for the Mark symbol, the range of glyph variation is restricted
→ 20BB ₻ nordic mark sign
~ 2133 FE00 ℳ chancery style
~ 2133 FE01 ℳ roundhand style
≈ <font> 004D M latin capital letter m

2134 ℴ SCRIPT SMALL O
= order, of inferior order to
≈ <font> 006F o latin small letter o

Hebrew letterlike math symbols

These are left-to-right characters.

2135 ℵ ALEF SYMBOL
= first transfinite cardinal (countable)
≈ 05D0 א hebrew letter alef

2136 ℶ BET SYMBOL
= second transfinite cardinal (the continuum)
≈ 05D1 ב hebrew letter bet

2137 ℷ GIMEL SYMBOL
= third transfinite cardinal (functions of a real variable)
≈ 05D2 ג hebrew letter gimel

2138 ℸ DALET SYMBOL
= fourth transfinite cardinal
≈ 05D3 ד hebrew letter dalet

Additional letterlike symbols

2139 ℹ INFORMATION SOURCE
• intended for use with 20DD ⃝
→ 1F6C8 🛈 circled information source
≈ <font> 0069 i latin small letter i

213A ⅍ ROTATED CAPITAL Q
• a binding signature mark

213B ℻ FACSIMILE SIGN
• typical forms for this symbol may use lowercase, small caps or superscripted letter shapes
→ 2121 ℡ telephone sign
→ 1F4E0 📠 fax machine
≈ 0046 F 0041 A 0058 X

213C ℼ DOUBLE-STRUCK SMALL PI
≈ <font> 03C0 π greek small letter pi

213D ℽ DOUBLE-STRUCK SMALL GAMMA
≈ <font> 03B3 γ greek small letter gamma

213E ℾ DOUBLE-STRUCK CAPITAL GAMMA
≈ <font> 0393 Γ greek capital letter gamma

213F ℿ DOUBLE-STRUCK CAPITAL PI
≈ <font> 03A0 Π greek capital letter pi

Double-struck large operator

2140 ⅀ DOUBLE-STRUCK N-ARY SUMMATION
≈ <font> 2211 ∑ n-ary summation

Additional letterlike symbols

2141 ⅁ TURNED SANS-SERIF CAPITAL G
= game
→ A4E8 Ɔ lisu letter hha

2142 ⅂ TURNED SANS-SERIF CAPITAL L
→ A4F6 ꓶ lisu letter uh

2143 ⅃ REVERSED SANS-SERIF CAPITAL L

2144 ⅄ TURNED SANS-SERIF CAPITAL Y
→ 11FB0 ᄀ lisu letter yha

The Unicode Standard, Version 15.0, Copyright © 1991-2022 Unicode, Inc. All rights reserved.

Double-struck italic math symbols

These stylized mathematical symbols are used in some documents to distinguish special mathematical usages from ordinary variables.

2145 ℅ DOUBLE-STRUCK ITALIC CAPITAL D
• sometimes used for the differential
≈ <font> 0044 D latin capital letter d

2146 ℆ DOUBLE-STRUCK ITALIC SMALL D
• sometimes used for the differential
≈ <font> 0064 d latin small letter d

2147 ℇ DOUBLE-STRUCK ITALIC SMALL E
• sometimes used for the natural exponent
≈ <font> 0065 e latin small letter e

2148 ℈ DOUBLE-STRUCK ITALIC SMALL I
• sometimes used for the imaginary unit
≈ <font> 0069 i latin small letter i

2149 ℉ DOUBLE-STRUCK ITALIC SMALL J
• sometimes used for the imaginary unit
≈ <font> 006A j latin small letter j

Additional letterlike symbols

214A ⅊ PROPERTY LINE

214B ⅋ TURNED AMPERSAND
• used in linear logic
→ 0026 & ampersand

214C ⅌ PER SIGN
• abbreviates the word 'per'

214D ⅍ AKTIESELSKAB
→ 2101 ℁ addressed to the subject

Lowercase Claudian letter

Claudian letters in inscriptions are uppercase, but may be transcribed by scholars in lowercase.

214E ⅎ TURNED SMALL F
• uppercase is 2132 Ⅎ
→ 03DD ϝ greek small letter digamma

Biblical editorial symbol

214F ⅏ SYMBOL FOR SAMARITAN SOURCE

The Unicode Standard, Version 15.0, Copyright © 1991-2022 Unicode, Inc. All rights reserved.

Standardized Variation Sequences

210B ℋ SCRIPT CAPITAL H

210B ℋ chancery style

210B FE00 ℋ roundhand style

210B FE01

2110 ℐ SCRIPT CAPITAL I

2110 ℐ chancery style

2110 FE00 ℐ roundhand style

2110 FE01

2112 ℒ SCRIPT CAPITAL L

2112 ℒ chancery style

2112 FE00 ℒ roundhand style

2112 FE01

211B ℛ SCRIPT CAPITAL R

211B ℛ chancery style

211B FE00 ℛ roundhand style

211B FE01

212C ℬ SCRIPT CAPITAL B

212C ℬ chancery style

212C FE00 ℬ roundhand style

212C FE01

2130 ℰ SCRIPT CAPITAL E

2130 ℰ chancery style

2130 FE00 ℰ roundhand style

2130 FE01

2131 ℱ SCRIPT CAPITAL F

2131 ℱ chancery style

2131 FE00 ℱ roundhand style

2131 FE01

2133 ℳ SCRIPT CAPITAL M

2133 ℳ chancery style

2133 FE00 ℳ roundhand style

2133 FE01

The Unicode Standard, Version 15.0, Copyright © 1991-2022 Unicode, Inc. All rights reserved.