

Letterlike Symbols

Range: 2100–214F

The Unicode Standard, Version 3.2

This file contains an excerpt from the character code tables and list of character names for *The Unicode Standard, Version 3.2*.

Characters in this chart that are new for The Unicode Standard, Version 3.2 are shown in conjunction with any existing characters. For ease of reference, the new characters have been highlighted in the chart grid and in the names list.

This file will not be updated with errata, or when additional characters are assigned to the Unicode Standard. See <http://www.unicode.org/charts> for access to a complete list of the latest character charts.

Disclaimer

These charts are provided as the on-line reference to the character contents of the Unicode Standard, Version 3.2 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 excerpt file, please consult the appropriate sections of *The Unicode Standard, Version 3.0* (ISBN 0-201-61633-5), as well as *Unicode Standard Annexes #28 and #27*, the other *Unicode Technical Reports* and the *Unicode Character Database*, which are available on-line.

See <http://www.unicode.org/Public/UNIDATA/UnicodeCharacterDatabase.html> and <http://www.unicode.org/unicode/reports>

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

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 <http://www.unicode.org/unicode/uni2book/u2fonts.html> for a list.

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See <http://www.unicode.org/pending/pending.html> and <http://www.unicode.org/unicode/alloc/Pipeline.html>.

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| | 210 | 211 | 212 | 213 | 214 | |
|---|------------------------|------------------------|------------------------|-------------------------|-------------------------|--|
| 0 | $\%_c$ 2100 | \mathcal{J} 2110 | SM 2120 | \mathcal{E}^o 2130 | Σ 2140 | |
| 1 | $\%_s$ 2101 | \mathfrak{J} 2111 | TEL 2121 | \mathcal{F} 2131 | \mathfrak{D} 2141 | |
| 2 | \mathbb{C} 2102 | \mathcal{L} 2112 | TM 2122 | \mathbb{H} 2132 | \mathbb{L} 2142 | |
| 3 | ${}^\circ C$ 2103 | ℓ 2113 | \mathbb{W} 2123 | \mathcal{M} 2133 | \mathbb{L}' 2143 | |
| 4 | \mathbb{C} 2104 | \mathcal{B} 2114 | \mathbb{Z} 2124 | \mathfrak{o} 2134 | \mathbb{A} 2144 | |
| 5 | $\%_o$ 2105 | \mathbb{N} 2115 | \mathfrak{Z} 2125 | \mathfrak{N} 2135 | \mathbb{D} 2145 | |
| 6 | $\%_u$ 2106 | \mathbb{N}_o 2116 | Ω 2126 | \mathbb{G} 2136 | d 2146 | |
| 7 | \mathfrak{E} 2107 | \mathbb{P} 2117 | \mathfrak{U} 2127 | \mathfrak{L} 2137 | e 2147 | |
| 8 | \mathfrak{D} 2108 | \mathfrak{P} 2118 | \mathfrak{Z} 2128 | \mathfrak{T} 2138 | \mathfrak{L}' 2148 | |
| 9 | ${}^\circ F$ 2109 | \mathbb{P} 2119 | \mathfrak{i} 2129 | \mathfrak{i} 2139 | j 2149 | |
| A | \mathcal{J} 210A | \mathbb{Q} 211A | K 212A | \mathcal{O} 213A | \mathbb{P} 214A | |
| B | \mathcal{H} 210B | \mathcal{R} 211B | \mathring{A} 212B | | | |
| C | \mathfrak{H} 210C | \mathfrak{R} 211C | \mathcal{B} 212C | | | |
| D | \mathbb{H} 210D | R 211D | \mathfrak{C} 212D | γ 213D | | |
| E | h 210E | R 211E | e 212E | Γ 213E | | |
| F | \hbar 210F | \mathbb{R} 211F | e 212F | \mathbb{W} 213F | | |

Letterlike symbols

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

| | | | |
|------|----|--|--|
| 2100 | % | ACCOUNT OF | |
| | | ≈ 0061 a 002F / 0063 c | |
| 2101 | % | ADDRESSED TO THE SUBJECT | |
| | | ≈ 0061 a 002F / 0073 s | |
| 2102 | ℂ | DOUBLE-STRUCK CAPITAL C | = the set of complex numbers |
| | | ≈ 0043 C latin capital letter c | |
| 2103 | °C | DEGREE CELSIUS | = degrees Centigrade |
| | | ≈ 00B0 ° 0043 C | |
| 2104 | ₡ | CENTRE LINE SYMBOL | = clone |
| | | ≈ 0063 c 002F / 006F o | |
| 2105 | % | CARE OF | |
| | | ≈ 0063 c 002F / 0075 u | |
| 2106 | %u | CADA UNA | |
| | | ≈ 0063 c 002F / 0075 u | |
| 2107 | ℇ | EULER CONSTANT | → 0045 E latin capital letter e |
| | | ≈ 0190 ℒ latin capital letter open e | |
| 2108 | ¤ | SCRUPLE | |
| 2109 | °F | DEGREE FAHRENHEIT | ≈ 00B0 ° 0046 F |
| 210A | ℊ | SCRIPT SMALL G | = real number symbol |
| | | ≈ 0067 g latin small letter g | |
| 210B | ℋ | SCRIPT CAPITAL H | = Hamiltonian function |
| | | ≈ 0048 H latin capital letter h | |
| 210C | ℋ | BLACK-LETTER CAPITAL H | = Hilbert space |
| | | ≈ 0048 H latin capital letter h | |
| 210D | ℍ | DOUBLE-STRUCK CAPITAL H | ≈ 0048 H latin capital letter h |
| 210E | ℎ | PLANCK CONSTANT | ≈ 0068 h latin small letter h |
| 210F | ℏ | PLANCK CONSTANT OVER TWO PI | → 045B ℏ cyrillic small letter tshe |
| | | ≈ 0127 ℏ latin small letter h with stroke | |
| 2110 | ℐ | SCRIPT CAPITAL I | ≈ 0049 I latin capital letter i |
| 2111 | ℑ | BLACK-LETTER CAPITAL I | ≈ 0049 I latin capital letter i |
| 2112 | ℒ | SCRIPT CAPITAL L | = imaginary part |
| | | ≈ 004C L latin capital letter l | |
| 2113 | ℓ | SCRIPT SMALL L | = Laplace symbol |
| | | ≈ 004C l latin capital letter l | |
| | | = liter (not an official SI recommendation) | |
| | | • the glyph shown is that of the traditional liter symbol, rather than a glyph harmonized with mathematical script fonts | |
| | | ≈ 006C l latin small letter l | |

| | | | |
|------|---|--|--|
| 2114 | ℔ | L B BAR SYMBOL | = pounds |
| 2115 | ℕ | DOUBLE-STRUCK CAPITAL N | = natural number |
| | | ≈ 004E N latin capital letter n | |
| 2116 | ℵ | NUMERO SIGN | ≈ 004E N 006F o |
| 2117 | ℗ | SOUND RECORDING COPYRIGHT | = published |
| | | ≈ phonorecord sign | |
| | | → 00A9 © copyright sign | |
| 2118 | ℘ | SCRIPT CAPITAL P | = Weierstrass elliptic function |
| | | • actually this has the form of a lowercase calligraphic p, despite its name | |
| 2119 | ℗ | DOUBLE-STRUCK CAPITAL P | ≈ 0050 P latin capital letter p |
| 211A | ℚ | DOUBLE-STRUCK CAPITAL Q | = the set of rational numbers |
| | | ≈ 0051 Q latin capital letter q | |
| 211B | ℛ | SCRIPT CAPITAL R | = Riemann Integral |
| | | ≈ 0052 R latin capital letter r | |
| 211C | ℜ | BLACK-LETTER CAPITAL R | = real part |
| | | ≈ 0052 R latin capital letter r | |
| 211D | ℝ | DOUBLE-STRUCK CAPITAL R | = the set of real numbers |
| | | ≈ 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 | ≈ 0054 T 0045 E 004C L |
| 2122 | ™ | TRADE MARK SIGN | ≈ <super> 0054 T 004D M |
| 2123 | ℣ | VERSICLE | |
| 2124 | ℤ | DOUBLE-STRUCK CAPITAL Z | = the set of integers |
| | | ≈ 005A Z latin capital letter z | |
| 2125 | ȝ | OUNCE SIGN | → 021D ȝ latin small letter yogh |
| 2126 | Ω | OHM SIGN | • SI unit of resistance, named after G. S. Ohm, German physicist |
| | | • preferred representation is 03A9 Ω | |
| | | ≡ 03A9 Ω greek capital letter omega | |
| 2127 | ℧ | INVERTED OHM SIGN | |
| | | • archaic unit of conductance (= the SI unit siemens) | |
| | | • typographically a turned greek capital letter omega | |
| | | → 01B1 ℧ latin capital letter upsilon | |
| | | → 03A9 Ω greek capital letter omega | |

| | | |
|------|---|--|
| 2128 | ȝ | BLACK-LETTER CAPITAL Z ≈ 005A Z latin capital letter z |
| 2129 | ι | 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 ≈ 0042 B latin capital letter b |
| 212D | ℭ | BLACK-LETTER CAPITAL C ≈ 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 ≈ 0065 e latin small letter e |
| 2130 | ℰ | SCRIPT CAPITAL E = EMF (Electro-Magnetic Force) ≈ 0045 E latin capital letter e |
| 2131 | ℱ | SCRIPT CAPITAL F = Fourier transform ≈ 0046 F latin capital letter f |
| 2132 | ℱ | TURNED CAPITAL F → 0046 F latin capital letter f |
| 2133 | ℳ | SCRIPT CAPITAL M = M-matrix (physics) = German Mark (not the current Deutsche Mark) ≈ 004D M latin capital letter m |
| 2134 | ℴ | SCRIPT SMALL O = order, of inferior order to ≈ 006F o latin small letter o |

Hebrew letterlike math symbols (left-to-right)

| | | |
|------|---|--|
| 2135 | ℵ | ALEF SYMBOL = first transfinite cardinal (countable) ≈ 05D0 ℵ hebrew letter alef |
| 2136 | ߂ | BET SYMBOL = second transfinite cardinal (the continuum) ≈ 05D1߂ hebrew letter bet |
| 2137 | ߃ | GIMEL SYMBOL = third transfinite cardinal (functions of a real variable) ≈ 05D2߃ hebrew letter gimel |

| | | |
|--------------------------------------|--------|--|
| 2138 | daleth | DALET SYMBOL = fourth transfinite cardinal ≈ 05D3 ଠ hebrew letter dalet |
| Additional letterlike symbols | | |
| 2139 | i | INFORMATION SOURCE • intended for use with 20DD ☺ ≈ 0069 i latin small letter i |
| 213A | ℧ | ROTATED CAPITAL Q • a binding signature mark |
| 213B | □□ | <reserved> |
| 213C | □□ | <reserved> |
| 213D | γ | DOUBLE-STRUCK SMALL GAMMA ≈ 03B3 γ greek small letter gamma |
| 213E | Γ | DOUBLE-STRUCK CAPITAL GAMMA ≈ 0393 Γ greek capital letter gamma |
| 213F | Π | DOUBLE-STRUCK CAPITAL PI ≈ 03A0 Π greek capital letter pi |

Double-struck large operator

| | | |
|------|---|--|
| 2140 | ⅀ | DOUBLE-STRUCK N-ARY SUMMATION ≈ 2211 ∑ n-ary summation |
|------|---|--|

Additional letterlike symbols

| | | |
|------|---|---------------------------------------|
| 2141 | ܍ | TURNED SANS-SERIF CAPITAL G = game |
| 2142 | ܏ | TURNED SANS-SERIF CAPITAL L |
| 2143 | ܏ | REVERSED SANS-SERIF CAPITAL L |
| 2144 | ܏ | TURNED SANS-SERIF CAPITAL Y |

Double-struck italic mathematical 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 ≈ 0044 D latin capital letter d |
| 2146 | ܍ | DOUBLE-STRUCK ITALIC SMALL D • sometimes used for the differential ≈ 0064 d latin small letter d |
| 2147 | ܍ | DOUBLE-STRUCK ITALIC SMALL E • sometimes used for the natural exponent ≈ 0065 e latin small letter e |
| 2148 | ܍ | DOUBLE-STRUCK ITALIC SMALL I • sometimes used for the imaginary unit ≈ 0069 i latin small letter i |
| 2149 | ܍ | DOUBLE-STRUCK ITALIC SMALL J • sometimes used for the imaginary unit ≈ 006A j latin small letter j |

Additional letterlike symbols

| | | |
|------|---|--|
| 214A | ܍ | PROPERTY LINE |
| 214B | ܍ | TURNED AMPERSAND • used in linear logic → 0026 & ampersand |