

## ASCII Table

| Decimal | Binary   | Char | Description          | Meaning / Use                                             |
|---------|----------|------|----------------------|-----------------------------------------------------------|
| 0       | 00000000 | NUL  | Null                 | No character, used as a string terminator                 |
| 1       | 00000001 | SOH  | Start of Heading     | Start of a heading in data transmission                   |
| 2       | 00000010 | STX  | Start of Text        | Marks start of text                                       |
| 3       | 00000011 | ETX  | End of Text          | Marks end of text                                         |
| 4       | 00000100 | EOT  | End of Transmission  | Signals end of transmission                               |
| 5       | 00000101 | ENQ  | Enquiry              | Requests response from remote station                     |
| 6       | 00000110 | ACK  | Acknowledge          | Acknowledges receipt of message                           |
| 7       | 00000111 | BEL  | Bell                 | Produces a beep or alert sound                            |
| 8       | 00001000 | BS   | Backspace            | Moves cursor one position back                            |
| 9       | 00001001 | TAB  | Horizontal Tab       | Moves cursor to next tab stop                             |
| 10      | 00001010 | LF   | Line Feed            | Moves cursor down to next line (new line)                 |
| 11      | 00001011 | VT   | Vertical Tab         | Moves cursor down to next vertical tab stop               |
| 12      | 00001100 | FF   | Form Feed            | Advances paper in printers to next page                   |
| 13      | 00001101 | CR   | Carriage Return      | Moves cursor to the beginning of the line                 |
| 14      | 00001110 | SO   | Shift Out            | Switch to alternate character set                         |
| 15      | 00001111 | SI   | Shift In             | Switch back to standard character set                     |
| 16      | 00010000 | DLE  | Data Link Escape     | Signals special transmission control                      |
| 17      | 00010001 | DC1  | Device Control 1     | Used for device control (e.g. XON to resume transmission) |
| 18      | 00010010 | DC2  | Device Control 2     | Device control                                            |
| 19      | 00010011 | DC3  | Device Control 3     | Device control (e.g. XOFF to pause transmission)          |
| 20      | 00010100 | DC4  | Device Control 4     | Device control                                            |
| 21      | 00010101 | NAK  | Negative Acknowledge | Indicates error in transmission                           |
| 22      | 00010110 | SYN  | Synchronous Idle     | Used to synchronize data streams                          |

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|---------|----------|---------|---------------------------|-------------------------------------|
| 23      | 00010111 | ETB     | End of Transmission Block | Indicates end of block of data      |
| 24      | 00011000 | CAN     | Cancel                    | Cancels current operation           |
| 25      | 00011001 | EM      | End of Medium             | Marks end of physical medium        |
| 26      | 00011010 | SUB     | Substitute                | Replaces invalid character          |
| 27      | 00011011 | ESC     | Escape                    | Signals special control sequences   |
| 28      | 00011100 | FS      | File Separator            | Separates files                     |
| 29      | 00011101 | GS      | Group Separator           | Separates groups of data            |
| 30      | 00011110 | RS      | Record Separator          | Separates records                   |
| 31      | 00011111 | US      | Unit Separator            | Separates units                     |
| 32      | 00100000 | (space) | Space                     | Blank space                         |
| 33      | 00100001 | !       | Exclamation mark          | Punctuation                         |
| 34      | 00100010 | "       | Quotation mark            | Used for quoting text               |
| 35      | 00100011 | #       | Number sign               | Used in numbers or as a hashtag     |
| 36      | 00100100 | \$      | Dollar sign               | Currency symbol                     |
| 37      | 00100101 | %       | Percent sign              | Percentage symbol                   |
| 38      | 00100110 | &       | Ampersand                 | Logical AND or “and” word           |
| 39      | 00100111 | '       | Apostrophe                | Used in contractions or possessives |
| 40      | 00101000 | (       | Left parenthesis          | Opening bracket                     |
| 41      | 00101001 | )       | Right parenthesis         | Closing bracket                     |
| 42      | 00101010 | *       | Asterisk                  | Used for multiplication or emphasis |
| 43      | 00101011 | +       | Plus sign                 | Addition or positive sign           |
| 44      | 00101100 | ,       | Comma                     | Punctuation to separate items       |
| 45      | 00101101 | -       | Hyphen-minus              | Hyphen or minus sign                |

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|---------|----------|------|-------------------|----------------------------------------|
| 46      | 00101110 | .    | Period            | End of sentence punctuation            |
| 47      | 00101111 | /    | Slash             | Used in fractions or to separate parts |
| 48      | 00110000 | 0    | Digit zero        | Number 0                               |
| 49      | 00110001 | 1    | Digit one         | Number 1                               |
| 50      | 00110010 | 2    | Digit two         | Number 2                               |
| 51      | 00110011 | 3    | Digit three       | Number 3                               |
| 52      | 00110100 | 4    | Digit four        | Number 4                               |
| 53      | 00110101 | 5    | Digit five        | Number 5                               |
| 54      | 00110110 | 6    | Digit six         | Number 6                               |
| 55      | 00110111 | 7    | Digit seven       | Number 7                               |
| 56      | 00111000 | 8    | Digit eight       | Number 8                               |
| 57      | 00111001 | 9    | Digit nine        | Number 9                               |
| 58      | 00111010 | :    | Colon             | Punctuation to separate time or lists  |
| 59      | 00111011 | ;    | Semicolon         | Punctuation stronger than comma        |
| 60      | 00111100 | <    | Less-than sign    | Mathematical comparison                |
| 61      | 00111101 | =    | Equals sign       | Mathematical equality                  |
| 62      | 00111110 | >    | Greater-than sign | Mathematical comparison                |
| 63      | 00111111 | ?    | Question mark     | End of a question sentence             |
| 64      | 01000000 | @    | At sign           | Used in emails or social media handles |
| 65      | 01000001 | A    | Capital letter A  | Uppercase letter A                     |
| 66      | 01000010 | B    | Capital letter B  | Uppercase letter B                     |
| 67      | 01000011 | C    | Capital letter C  | Uppercase letter C                     |
| 68      | 01000100 | D    | Capital letter D  | Uppercase letter D                     |

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|---------|----------|------|---------------------|------------------------|
| 69      | 01000101 | E    | Capital letter E    | Uppercase letter E     |
| 70      | 01000110 | F    | Capital letter F    | Uppercase letter F     |
| 71      | 01000111 | G    | Capital letter G    | Uppercase letter G     |
| 72      | 01001000 | H    | Capital letter H    | Uppercase letter H     |
| 73      | 01001001 | I    | Capital letter I    | Uppercase letter I     |
| 74      | 01001010 | J    | Capital letter J    | Uppercase letter J     |
| 75      | 01001011 | K    | Capital letter K    | Uppercase letter K     |
| 76      | 01001100 | L    | Capital letter L    | Uppercase letter L     |
| 77      | 01001101 | M    | Capital letter M    | Uppercase letter M     |
| 78      | 01001110 | N    | Capital letter N    | Uppercase letter N     |
| 79      | 01001111 | O    | Capital letter O    | Uppercase letter O     |
| 80      | 01010000 | P    | Capital letter P    | Uppercase letter P     |
| 81      | 01010001 | Q    | Capital letter Q    | Uppercase letter Q     |
| 82      | 01010010 | R    | Capital letter R    | Uppercase letter R     |
| 83      | 01010011 | S    | Capital letter S    | Uppercase letter S     |
| 84      | 01010100 | T    | Capital letter T    | Uppercase letter T     |
| 85      | 01010101 | U    | Capital letter U    | Uppercase letter U     |
| 86      | 01010110 | V    | Capital letter V    | Uppercase letter V     |
| 87      | 01010111 | W    | Capital letter W    | Uppercase letter W     |
| 88      | 01011000 | X    | Capital letter X    | Uppercase letter X     |
| 89      | 01011001 | Y    | Capital letter Y    | Uppercase letter Y     |
| 90      | 01011010 | Z    | Capital letter Z    | Uppercase letter Z     |
| 91      | 01011011 | [    | Left square bracket | Opening square bracket |

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|---------|----------|------|----------------------|---------------------------------------------|
| 92      | 01011100 | \    | Backslash            | Escape character in programming             |
| 93      | 01011101 | ]    | Right square bracket | Closing square bracket                      |
| 94      | 01011110 | ^    | Caret                | Used in math and programming                |
| 95      | 01011111 | _    | Underscore           | Used as a space substitute or variable name |
| 96      | 01100000 | `    | Grave accent         | Used in programming or linguistics          |
| 97      | 01100001 | a    | Small letter a       | Lowercase letter a                          |
| 98      | 01100010 | b    | Small letter b       | Lowercase letter b                          |
| 99      | 01100011 | c    | Small letter c       | Lowercase letter c                          |
| 100     | 01100100 | d    | Small letter d       | Lowercase letter d                          |
| 101     | 01100101 | e    | Small letter e       | Lowercase letter e                          |
| 102     | 01100110 | f    | Small letter f       | Lowercase letter f                          |
| 103     | 01100111 | g    | Small letter g       | Lowercase letter g                          |
| 104     | 01101000 | h    | Small letter h       | Lowercase letter h                          |
| 105     | 01101001 | i    | Small letter i       | Lowercase letter i                          |
| 106     | 01101010 | j    | Small letter j       | Lowercase letter j                          |
| 107     | 01101011 | k    | Small letter k       | Lowercase letter k                          |
| 108     | 01101100 | l    | Small letter l       | Lowercase letter l                          |
| 109     | 01101101 | m    | Small letter m       | Lowercase letter m                          |
| 110     | 01101110 | n    | Small letter n       | Lowercase letter n                          |
| 111     | 01101111 | o    | Small letter o       | Lowercase letter o                          |
| 112     | 01110000 | p    | Small letter p       | Lowercase letter p                          |
| 113     | 01110001 | q    | Small letter q       | Lowercase letter q                          |
| 114     | 01110010 | r    | Small letter r       | Lowercase letter r                          |

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|---------|----------|------|-------------------|----------------------------------|
| 115     | 01110011 | s    | Small letter s    | Lowercase letter s               |
| 116     | 01110100 | t    | Small letter t    | Lowercase letter t               |
| 117     | 01110101 | u    | Small letter u    | Lowercase letter u               |
| 118     | 01110110 | v    | Small letter v    | Lowercase letter v               |
| 119     | 01110111 | w    | Small letter w    | Lowercase letter w               |
| 120     | 01111000 | x    | Small letter x    | Lowercase letter x               |
| 121     | 01111001 | y    | Small letter y    | Lowercase letter y               |
| 122     | 01111010 | z    | Small letter z    | Lowercase letter z               |
| 123     | 01111011 | {    | Left curly brace  | Opening curly brace              |
| 124     | 01111100 |      |                   | Vertical bar                     |
| 125     | 01111101 | }    | Right curly brace | Closing curly brace              |
| 126     | 01111110 | ~    | Tilde             | Approximation or bitwise NOT     |
| 127     | 01111111 | DEL  | Delete            | Deletes character (non-printing) |