

# IBM Extended Character Codes, BIOS Keyboard Interface

Extended character codes returned by the IBM BIOS in the keyboard buffer, through INT 16h, and at the MS-DOS console driver as 00h <code>

**Character code:** Character code returned by the BIOS

**Key combination:** Key combination that generates the character code

Character code	Key combination
0x01	Alt+Esc
0x03	Ctrl+2 <sup>[*0]</sup>
0x03	Null character (none) <sup>[*1]</sup>
0x0E	Alt+Backspace
0x0F	Shift Tab
0x10	Alt+Q
0x11	Alt+W
0x12	Alt+E
0x13	Alt+R
0x14	Alt+T
0x15	Alt+Y
0x16	Alt+U
0x17	Alt+I
0x18	Alt+O
0x19	Alt+P
0x1A	Alt+[
0x1B	Alt+]
0x1C	Alt+Enter
0x1E	Alt+A
0x1F	Alt+S
0x20	Alt+D
0x21	Alt+F
0x22	Alt+G
0x23	Alt+H
0x24	Alt+J
0x25	Alt+K
0x26	Alt+L
0x27	Alt+;
0x28	Alt+'
0x29	Alt+`
0x2B	Alt+\
0x2C	Alt+Z
0x2D	Alt+X
0x2E	Alt+C
0x2F	Alt+V
0x30	Alt+B
0x31	Alt+N
0x32	Alt+M
0x33	Alt+,
0x34	Alt+.
0x35	Alt+/-
0x37	Alt+*
0x3B	Function key 1
0x3C	Function key 2
0x3D	Function key 3
0x3E	Function key 4
0x3F	Function key 5
0x40	Function key 6
0x41	Function key 7
0x42	Function key 8

Character code	Key combination
0x43	Function key 9
0x44	Function key 10
0x47	Home
0x48	Up arrow
0x49	Page Up
0x4A	Alt+-
0x4B	Left arrow
0x4C	Center Key 5
0x4D	Right arrow
0x4E	Alt++
0x4F	End
0x50	Down arrow
0x51	Page Down
0x52	Insert
0x53	Delete
0x54	Shift+F1
0x55	Shift+F2
0x56	Shift+F3
0x57	Shift+F4
0x58	Shift+F5
0x59	Shift+F6
0x5A	Shift+F7
0x5B	Shift+F8
0x5C	Shift+F9
0x5D	Shift+F10
0x5E	Control+F1
0x5F	Control+F2
0x60	Control+F3
0x61	Control+F4
0x62	Control+F5
0x63	Control+F6
0x64	Control+F7
0x65	Control+F8
0x66	Control+F9
0x67	Control+F10
0x68	Alt+F1
0x69	Alt+F2
0x6A	Alt+F3
0x6B	Alt+F4
0x6C	Alt+F5
0x6D	Alt+F6
0x6E	Alt+F7
0x6F	Alt+F8
0x70	Alt+F9
0x71	Alt+F10
0x72	Control+PrtSc
0x73	Control+Left arrow
0x74	Control+Right arrow
0x75	Control+End
0x76	Control+PgDn

Character code	Key combination
0x77	Control+Home
0x78	Alt + upper row 1
0x79	Alt + upper row 2
0x7A	Alt + upper row 3
0x7B	Alt + upper row 4
0x7C	Alt + upper row 5
0x7D	Alt + upper row 6
0x7E	Alt + upper row 7
0x7F	Alt + upper row 8
0x80	Alt + upper row 9
0x81	Alt + upper row 0
0x82	Alt+hyphen
0x83	Alt+equals
0x84	Control+PgUp
0x85	Function key 11
0x86	Function key 12
0x87	Shift+F11
0x88	Shift+F12
0x89	Ctrl+F11
0x8A	Ctrl+F12
0x8B	Alt+F11
0x8C	Alt+F12
0x8D	Ctrl+Up arrow
0x8E	Ctrl+-
0x8F	Ctrl+Center Key 5
0x90	Ctrl++
0x91	Ctrl+Down arrow
0x92	Ctrl+Ins
0x93	Ctrl+Del
0x94	Ctrl+Tab
0x95	Ctrl+/ (101-key)
0x96	Ctrl+*
0x97	Alt+Home (101-key)
0x98	Alt+Up arrow (101-key)
0x99	Alt+Page up (101-key)
0x9B	Alt+Left arrow (101-key)
0x9D	Alt+Right arrow (101-key)
0x9F	Alt+End (101-key)
0xA0	Alt+Down arrow (101-key)
0xA1	Alt+Page down (101-key)
0xA2	Alt+Insert (101-key)
0xA3	Alt+Delete (101-key)
0xA4	Alt+/ (101-key)
0xA5	Alt+Tab
0xA6	Alt+Enter (101-key)

## Sources

[\*0] Keyboard scan code/character code combinations returned in AH/AL by INT 16h functions 00h/01h (standard) and functions 01h/11h (extended)

URL: <https://sites.google.com/site/pcdosretro/scancodes>

[\*1] The Programmer's PC Sourcebook, Thom Hogan, Microsoft Press, 1988

Part 1, Miscellaneous Information => Section 1, General Information => 1.23, IBM Extended Character Codes

## Notes

- Some codes match the scan code returned by the keyboard. See also "IBM keyboard scan code set 1"