AwardBIOS™ Version 6.00

(January 29, 1999)

Normal POST Codes

NOTE: EISA POST codes are typically output to port address 300h.
ISA POST codes are output to port address 80h.

Code(hex)	Name	Description
C0	Turn Off Chipset And CPU test	OEM Specific-Cache control cache Processor Status (1FLAGS) Verification. Tests the following processor status flags: Carry, zero, sign, overflow, The BIOS sets each flag, verifies They are set, then turns each flag off and verifies it is off. Read/Write/Verify all CPU registers except SS, SP, and BP with data pattern FF and 00. RAM must be periodically refreshed to keep the memory from decaying. This function ensures that the memory refresh function is working properly.
C1	Memory Presence	First block memory detect OEM Specific-Test to size on-board memory. Early chip set initialization Memory presence test OEM chip set routines Clear low 64K of memory Test first 64K memory.
C2	Early Memory Initialization	OEM Specific- Board Initialization
C3	Extend Memory DRAM select	OEM Specific- Turn on extended memory Initialization Cyrix CPU initialization Cache initialization

C4	Special Display Handling	OEM Specific- Display/Video Switch Handling so that Switch Handling display switch errors never occurs
C5	Early Shadow	OEM specific- Early shadow enable for fast boot
C6	Cache presence test	External cache size detection
CF	CMOS Check	CMOS checkup
B0	Spurious	If interrupt occurs in protected mode.
B1	Unclaimed NMI	If unmasked NMI occurs, display Press F1 to disable NMI, F2 reboot.
BF	Program Chip Set	To program chipset from defaults values
E1-EF	Setup Pages	E1- Page 1, E2 - Page 2, etc.
1	Force load Default to chipset	Chipset defaults program
2	Reserved	
3	Early Superio Init	Early Initialized the super IO
4	Reserved	
5	Blank video	Reset Video controller
6	Reserved	
7	Init KBC	Keyboard controller init
8	KB test	Test the Keyboard
9	Reserved	
A	Mouse Init	Initialized the mouse
B	Onboard Audio init	Onboard audio controller initialize if exist
C	Reserved	
D	Reserved	
E	CheckSum Check	Check the intergraty of the ROM,BIOS and message

F	Reserved	
10	Auto detec EEPROM	Check Flash type and copy flash write/erase routines to 0F000h segments
11	Reserved	
12	Cmos Check	Check Cmos Circuitry and reset CMOS
13	Reserved	
14	Chipset Default load	Program the chipset registers with CMOS values
15	Reserved	
16	Clock Init	Init onboard clock generator
17	Reserved	
18	Identify the CPU	Check the CPU ID and init L1/L2 cache
19	Reserved	
1A	Reserved	
1B	Setup Interrupt Vector Table	Initialize first 120 interrupt vectors with SPURIOUS_INT_HDLR and initialize INT 00h-1Fh according to INT_TBL
1C	Reserved	
1D	Early PM Init	First step initialize if single CPU onboard
1E	Reserved	
1F	Re-initial KB	Re-init KB
20	Reserved	
21	HPM init	If support HPM, HPM get initialized here
22	Reserved	
23	Test CMOS Interface and Battery Status	Verifies CMOS is working correctly, detects bad battery. If failed,load CMOS defaults and load into chipset
24	Reserved	
25	Reserved	
26	Reserved	

27	KBC final Init	Final Initial KBC and setup BIOS data area
28	Reserved	
29	Initialize Video Interface	Read CMOS location 14h to find out type of video in use. Detect and Initialize Video Adapter.
2A	Reserved	
2B	Reserved	
2C	Reserved	
2D	Video memory test	Test video memory, write sign-on message to screen.
2E	Reserved	Setup shadow RAM - Enable shadow according to Setup.
2F	Reserved	
30	Reserved	
31	Reserved	
32	Reserved	
33	PS2 Mouse setup	Setup PS2 Mouse and reset KB
34	Reserved	
35	Test DMA Controller 0	Test DMA channel 0
36	Reserved	
37	Test DMA Controller 1	Test DMA channel 1
38	Reserved	
39	Test DMA Page Registers	Test DMA Page Registers.
3A	Reserved	
3B	Reserved	
3C	Test Timer Counter 2	Test 8254 Timer 0 Counter 2.

3D	Reserved	
3E	Test 8259-1 Mask Bits	Verify 8259 Channel 1 masked interrupts by alternately turning off and on the interrupt lines.
3F	Reserved	
40	Test 8259-2 Mask Bits	Verify 8259 Channel 2 masked interrupts by alternately turning off and on the interrupt lines.
41	Reserved	
42	Reserved	
43	Test Stuck 8259's Interrupt Bits	Turn off interrupts then verify no interrupt mask register is on.
	Test 8259 Interrupt Functionality	Force an interrupt and verify the interrupt occurred.
44	Reserved	
45	Reserved	
46	Reserved	
47	Set EISA Mode	If EISA non-volatile memory checksum is good, execute EISA initialization. If not, execute ISA tests an clear EISA mode flag.
48	Reserved	
49	Size Base and Extended Memory	Size base memory from 256K to 640K and extended memory above 1MB.
4A	Reserved	
4B	Reserved	
4C	Reserved	
4D	Reserved	
4E	Test Base and Extended Memory	Test base memory from 256K to 640K and extended memory above 1MB using various patterns.

NOTE: This test is skipped in EISA
                                        mode and can be skipped with ESC key
                                        in ISA mode.

4F   Reserved

50   USB init   Initialize USB controller

51   Reserved

52   Memory Test   Test all memory of memory above 1MB
                                        using Virtual 8086 mode,
                                        page mode and clear the memory

53   Reserved

54   Reserved

55   CPU display   Detect CPU speed and display
                                        CPU vendor specific version string
                                        and turn on all necessary CPU features

56   Reserved

57   PnP Init   Display PnP logo and PnP early init

58   Reserved

59   Setup Virus   Setup virus protect according to
            Protect   Setup

5A   Reserved

5B   Awdflash Load   If required, will auto load
                                        Awdflash.exe in POST

5C   Reserved

5D   Onboard I/O Init   Initializing onboard superIO

5E   Reserved

5F   Reserved

60   Setup enable   Display setup message and enable setup
                                        functions

61   Reserved

62   Reserved

63	Initialize & Install Mouse	Detect if mouse is present, initialize mouse, install interrupt vectors.
64	Reserved	
65	PS2 Mouse special	Special treatment to PS2 Mouse port
66	Reserved	
67	ACPI init	ACPI sub-system initializing
68	Reserved	
69	Setup Cache Controller	Initialize cache controller.
6A	Reserved	
6B	Setup Entering	Enter setup check and auto-configuration check up
6C	Reserved	
6D	Initialize Floppy Drive & Controller	Initialize floppy disk drive controller and any drives.
6E	Reserved	
6F	FDD install	Install FDD and setup BIOS data area parameters
70	Reserved	
71	Reserved	
72	Reserved	
73	Initialize Hard Drive & Controller	Initialize hard drive controller and any drives.
74	Reserved	
75	Install HDD	IDE device detection and install
76	Reserved	
77	Detect & Initialize Serial/Parallel	Initialize any serial and parallel ports (also game port).

	Ports	
78	Reserved	
79	Reserved	
7A	Detect & Initialize Math Coprocessor	Initialize math coprocessor.
7B	Reserved	
7C	HDD Check for Write protection	HDD check out
7D	Reserved	
7E	Reserved	
7F	POST error check	Check POST error and display them and ask for user intervention
80	Reserved	
81	Reserved	
82	Security Check	Ask password security (optional).
83	Write CMOS	Write all CMOS values back to RAM and clear screen.
84	Pre-boot Enable	Enable parity checker Enable NMI, Enable cache before boot.
85	Initialize Option ROMs	Initialize any option ROMs present from C8000h to EFFFFh. NOTE: When FSCAN option is enabled, ROMs initialize from C8000h to F7FFFh.
86	Reserved	
87	Reserved	
88	Reserved	
89	Reserved	
8A	Reserved	
8B	Reserved	
8C	Reserved	

8D	Reserved	
8E	Reserved	
8F	Reserved	
90	Reserved	
91	Reserved	
92	Reserved	
93	Boot Medium detection	Read and store boot partition head and cylinders values in RAM
94	Final Init	Final init for last micro details before boot
95	Special KBC patch	Set system speed for boot Setup NumLock status according to Setup
96	Boot Attempt	Set low stack Boot via INT 19h.
FF	Boot	

Quick POST Codes

65	Init onboard device	Early Initialized the super IO Reset Video controller Keyboard controller init Test the Keyboard Initialized the mouse Onboard audio controller initialize if exist. Check the intergraty of the ROM, BIOS and message Check Flash type and copy flash write/erase routines to 0F000h segments Check Cmos Circuitry and reset CMOS Program the chipset registers with CMOS values Init onboard clock generator
66	Early Sytem setup	Check the CPU ID and init L1/L2 cache Initialize first 120 interrupt vectors with SPURIOUS_INT_HDLR and

		initialize
		INT 00h-1Fh according to INT_TBL
		First step initialize if single CPU
		onboard. Re-init KB
		If support HPM, HPM get initialized
		here
67	KBC and CMOS Init	Verifies CMOS is working correctly, detects bad battery.If failed, load CMOS defaults and load into chipset Final Initial KBC and setup BIOS data area.
68	Video Init	Read CMOS location 14h to find out type of video in use. Detect and Initialize Video Adapter. Test video memory, write sign-on message to screen. Setup shadow RAM - Enable shadow according to Setup.
69	8259 Init	Init 8259 channel 1 and mask IRQ 9
6A	Memory test	Quick Memory Test
6B	CPU Detect and IO init	Detect CPU speed and display CPU vendor specific version string and turn on all necessary CPU features Display PnP logo and PnP early init Setup virus protect according to Setup. If required, will auto load Awdflash.exe in POST Initializing onboard superIO
6C	Reserved	
6D	Reserved	
6E	Reserved	
6F	Reserved	
70	Setup Init	Display setup message and enable setup functions Detect if mouse is present, initialize mouse, install interrupt vectors. Special treatment to PS2 Mouse port ACPI sub-system initializing
71	Setup Cache Controller	Initialize cache controller.
72	Install FDD	Enter setup check and auto-

		configuration check up Initialize floppy disk drive controller and any drives. Install FDD and setup BIOS data area parameters
73	Install HDD	Initialize hard drive controller and any drives. IDE device detection and install Initialize any serial and parallel ports (also game port).
74	Detect & Initialize Math Coprocessor	Initialize math coprocessor.
75	HDD Check for Write protection	HDD check out
76	Reserved	
77	Display POST error	Check POST error and display them and ask for user intervention Ask password security (optional).
78	CMOS and Option ROM Init	Write all CMOS values back to RAM and clear screen. Enable parity checker Enable NMI, Enable cache before boot. Initialize any option ROMs present from C8000h to EFFFFh. NOTE: When FSCAN option is enabled, ROMs initialize from C8000h to F7FFFh.
79	Reserved	
7A	Reserved	
7B	Reserved	
7C	Reserved	
7D	Boot Medium detection	Read and store boot partition head and cylinders values in RAM
7E	Final Init	Final init for last micro details before boot
7F	Special KBC patch	Set system speed for boot Setup NumLock status according to Setup

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80          Boot Attempt                    Set low stack
                                            Boot  via INT 19h.


FF          Boot
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S4 POST Codes

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5A          Early Chipset Init              Early Initialized the super IO
                                            Reset Video controller
                                            Keyboard controller init
                                            Test the Keyboard
                                            Initilized the mouse


5B          Cmos Check                      Check Cmos Circuitry and reset CMOS


5C          Chipset default Prog            Program the chipset registers with
                                            CMOS values. Init onboard clock
                                            generator


5D          Identify the CPU                Check the CPU ID and init L1/L2 cache


5E          Setup Interrupt                 Initialize first 120 interrupt
            Vector Table                    vectors with SPURIOUS_INT_HDLR and
                                            INT 00h-1Fh according to INT_TBL
                                            First step initialize if single CPU
                                            Onboard. Re-init KB
                                            If support HPM, HPM get initialized
                                            Here.

5F          Test CMOS                       Verifies CMOS is working correctly,
            Interface and                   detects bad battery.If failed, load
            Battery status                  CMOS defaults and load into chipset

60          KBC final Init                  Final Initial KBC and setup BIOS data
                                            area

61          Initialize Video                Read CMOS location 14h to find out
            Interface                       type of video in use.
                                            Detect and Initialize Video Adapter.

62          Video memory test               Test video memory, write sign-on
                                            message to screen.
                                            Setup shadow RAM - Enable shadow
                                            according to Setup.
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63	Setup PS2 mouse and test DMA	Setup PS2 Mouse and reset KB Test DMA channel 0
64	Test 8259	Test 8259 channel 1 and mask IRQ 9
65	Init Boot Device	Detect if mouse is present, initialize mouse, install interrupt vectors. Special treatment to PS2 Mouse port ACPI sub-system initializing Initialize cache controller.
66	Install Boot Devices	Enter setup check and auto-configuration check up Initialize floppy disk drive controller and any drives. Install FDD and setup BIOS data area Parameters Initialize hard drive controller and any drives. IDE device detection and install
67	Cache Init	Cache init and USB init
68	PM init	PM initialization
69	PM final Init and issue SMI	Final init Before resume
FF	Full on	

BootBlock POST Codes

1	Base memory test	Clear base memory area (0000:0000--9000:ffffh)
5	KB init	Initialized KBC
12	Install interrupt vectors	Install int. vector (0-77), and initialized 00-1fh to their proper place
0D	Init Video	Video initializing
41	Init FDD	Scan floppy and media capacity for onboard superIO
FF	Boot	Load boot sector

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