



CHAPTER 6

BIOS Messages

This chapter provides information about and a list of the BIOS messages that are present in the Cisco version of the BIOS:

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POST Error Messages and Handling

Whenever possible, the BIOS outputs the current boot progress codes to the SEL and to UCS Manager. Progress codes are 32-bit quantities plus optional data. The 32-bit numbers include class, subclass, and operation information. The class and subclass fields point to the type of hardware that is being initialized. The operation field represents the specific initialization activity. Based on the data bit availability to display progress codes, a progress code can be customized to fit the data width. The higher the data bit, the higher the granularity of information that can be sent on the progress port. The progress codes may be reported by the system BIOS or option ROMs.

BIOS Message Severities

BIOS messages can have one of the following severities:

- **Minor:** The system continues booting in a degraded state. The user may want to replace the erroneous unit. The POST Error Pause option setting in the BIOS setup does not have any effect on this error.
- **Major:** The POST Error Pause option setting in the BIOS setup determines whether the system pauses to the Error Manager for this type of error so the user can take immediate corrective action or the system continues booting.



Note For 0048 “Password check failed,” the system halts, and then after the next reset/reboot will display the error code on the screen.

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- Fatal: The system halts during post at a blank screen with the text “Unrecoverable fatal error found. System will not boot until the error is resolved,” and “Press <F2> to enter setup.” The POST Error Pause option setting in the BIOS setup does not have any effect with this class of error.

When the operator presses the F2 key on the keyboard, the error message is displayed on the screen, and an error is logged to the SEL with the error code. The system cannot boot unless the error is resolved. The user needs to replace the faulty part and restart the system.

BIOS Message Format

Table 6-1 describes the format used in BIOS messages.

Table 6-1 Error Message Format

Generator ID	Sensor Type Code	Sensor number	Type code	Event Data1	Event Data2	Event Data3
33h (BIOS POST)	0Fh (System Firmware Progress)	0Fh (System Firmware Progress)	6Fh (Sensor Specific Offset)	A0h (OEM Codes in Data2 & Data3)	xxh (Low Byte of POST Error Code)	xxh (High Byte of POST Error Code)

BIOS Messages and Codes

Table 6-2 lists messages that are from the baseline Intel BIOS and are present in the Cisco version of the BIOS.

Table 6-2 List of BIOS messages and codes

Error Code	Severity	Error Message	Possible Needed Response
9687	Fatal	DXE core component encountered a illegal software state error.	
8565	Major	DIMM_C2 Component encountered a Serial Presence Detection (SPD) fail error.	
8567	Major	DIMM_D2 Component encountered a Serial Presence Detection (SPD) fail error.	
85A2	Major	DIMM_B1 Uncorrectable ECC error encountered.	
85AB	Major	DIMM_F2 Uncorrectable ECC error encountered.	
9000	Major	Unspecified processor component has encountered a non-specific error.	
0xB6A3	Major	DXE boot services driver Unrecognized.	
8604	Minor	Chipset Reclaim of non critical variables complete.	
9223	Minor	Keyboard component was not detected.	
9266	Minor	Local Console component encountered a controller error.	

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Table 6-2 **List of BIOS messages and codes (continued)**

Error Code	Severity	Error Message	Possible Needed Response
9286	Minor	Remote Console component encountered a controller error.	
94C6	Minor	LPC component encountered a controller error.	
95A7	Minor	PCI component encountered a read error.	
9609	Minor	Unspecified software component encountered a start error.	
0xA028	Minor	Processor component encountered a high voltage error.	
0xA501	Minor	ATA/ATPI ATA SMART is disabled.	
0192	Fatal	Processor 0x cache size mismatch detected.	The user needs to replace the faulty part and restart the system.
0194	Fatal	Processor 0x family mismatch detected.	The user needs to replace the faulty part and restart the system.
0196	Fatal	Processor 0x model mismatch.	
0197	Fatal	Processor 0x speeds mismatched.	
0198	Fatal	Processor 0x family is not supported.	
9667	Fatal	PEI module component encountered an illegal software state error.	
96A7	Fatal	DXE boot services driver component encountered an illegal software state error.	
96E7	Fatal	SMM driver component encountered an illegal software state error.	
0xA421	Fatal	PCI component encountered a SERR error.	
0xA5A1	Fatal	PCI Express component encountered a SERR error.	
0012	Major	CMOS date / time not set	Set the Time and Date.
0048	Major	Password check failed	
0113	Major	Fixed Media SAS RAID firmware cannot run properly.	Attempt to reflash the firmware.
0140	Major	PCI component encountered a PERR error.	
0141	Major	PCI resource conflict.	
0146	Major	PCI out of resources error.	
0195	Major	Processor 0x Intel(R) QPI speed mismatch.	
019F	Major	Processor and chipset stepping configuration is unsupported.	
5220	Major	CMOS/NVRAM Configuration Cleared	
5221	Major	Passwords cleared by jumper.	
5224	Major	Password clear Jumper is Set.	
8160	Major	Processor 01 unable to apply microcode update.	

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Table 6-2 List of BIOS messages and codes (continued)

Error Code	Severity	Error Message	Possible Needed Response
8161	Major	Processor 02 unable to apply microcode update.	
8190	Major	Watchdog timer failed on last boot.	
8198	Major	OS boot watchdog timer failure.	
8300	Major	Baseboard management controller failed self-test.	
84F2	Major	Baseboard management controller failed to respond.	
84F3	Major	Baseboard management controller in update mode.	
84F4	Major	Sensor data record empty.	
8500	Major	Memory component could not be configured in the selected RAS mode.	
8501	Major	DIMM Population Error.	
8502	Major	CLTT Configuration Failure Error.	
8520	Major	DIMM_A1 failed Self Test (BIST).	
8521	Major	DIMM_A2 failed Self Test (BIST).	
8522	Major	DIMM_B1 failed Self Test (BIST).	
8523	Major	DIMM_B2 failed Self Test (BIST).	
8524	Major	DIMM_C1 failed Self Test (BIST).	
8525	Major	DIMM_C2 failed Self Test (BIST).	
8526	Major	DIMM_D1 failed Self Test (BIST).	
8527	Major	DIMM_D2 failed Self Test (BIST).	
8528	Major	DIMM_E1 failed Self Test (BIST).	
8562	Major	DIMM_B1 Component encountered a Serial Presence Detection (SPD) fail error.	
8563	Major	DIMM_B2 Component encountered a Serial Presence Detection (SPD) fail error.	
8564	Major	DIMM_C1 Component encountered a Serial Presence Detection (SPD) fail error.	
8566	Major	DIMM_D1 Component encountered a Serial Presence Detection (SPD) fail error.	
8568	Major	DIMM_E1 Component encountered a Serial Presence Detection (SPD) fail error.	
8569	Major	DIMM_E2 Component encountered a Serial Presence Detection (SPD) fail error.	
856A	Major	DIMM_F1 Component encountered a Serial Presence Detection (SPD) fail error.	
856B	Major	DIMM_F2 Component encountered a Serial Presence Detection (SPD) fail error.	
85A0	Major	DIMM_A1 Uncorrectable ECC error encountered.	

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Table 6-2 **List of BIOS messages and codes (continued)**

Error Code	Severity	Error Message	Possible Needed Response
85A1	Major	DIMM_A2 Uncorrectable ECC error encountered.	
85A3	Major	DIMM_B2 Uncorrectable ECC error encountered.	
85A4	Major	DIMM_C1 Uncorrectable ECC error encountered.	
85A5	Major	DIMM_C2 Uncorrectable ECC error encountered.	
85A6	Major	DIMM_D1 Uncorrectable ECC error encountered.	
85A7	Major	DIMM_D2 Uncorrectable ECC error encountered.	
85A8	Major	DIMM_E1 Uncorrectable ECC error encountered.	
85A9	Major	DIMM_E2 Uncorrectable ECC error encountered.	
85AA	Major	DIMM_F1 Uncorrectable ECC error encountered.	
92A3	Major	Serial port component was not detected.	
92A9	Major	Serial port component encountered a resource conflict error.	
94C9	Major	LPC component encountered a resource conflict error.	
0xA022	Major	Processor component encountered a mismatch error.	
0xA5A4	Major	PCI Express IBIST error.	
0108	Minor	Keyboard component encountered a locked error.	Unlock the keyboard.
0109	Minor	Keyboard component encountered a stuck key error.	
0193	Minor	Processor 0x stepping mismatch.	
8180	Minor	Processor 0x microcode update not found.	
84FF	Minor	System event log full.	
9226	Minor	Keyboard component encountered a controller error.	
9243	Minor	Mouse component was not detected.	
9246	Minor	Mouse component encountered a controller error.	
9268	Minor	Local Console component encountered an output error.	
9269	Minor	Local Console component encountered a resource conflict error.	
9287	Minor	Remote Console component encountered an input error.	
9288	Minor	Remote Console component encountered an output error.	
92C6	Minor	Serial Port controller error.	
92C7	Minor	Serial Port component encountered an input error.	
92C8	Minor	Serial Port component encountered an output error.	

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Table 6-2 List of BIOS messages and codes (continued)

Error Code	Severity	Error Message	Possible Needed Response
9506	Minor	ATA/ATPI component encountered a controller error.	
95A6	Minor	PCI component encountered a controller error.	
95A8	Minor	PCI component encountered a write error.	
9641	Minor	PEI Core component encountered a load error.	
96AB	Minor	DXE boot services driver component encountered invalid configuration.	
0xA000	Minor	TPM device not detected.	
0xA001	Minor	TPM device missing or not responding.	
0xA002	Minor	TPM device failure.	
0xA003	Minor	TPM device failed self test.	
0xA027	Minor	Processor component encountered a low voltage error.	
0xA500	Minor	ATA/ATPI ATA bus SMART not supported.	
0xA5A0	Minor	PCI Express component encountered a PERR error.	
0xA6A0	Minor	DXE boot services driver Not enough memory available to shadow a legacy option ROM.	

The following additional messages are unique to the Cisco BIOS.

Code	Severity	Message	Added/Changed	Action
E1xx	Major	DIMM xx Disabled	Changed from 854x	Replace any failed DIMMs, Verify DIMMs are in valid configuration
E2xx	Major	DIMM xx Component encountered a Serial Presence Detection (SPD) fail error	Changed from 856x	Replace failed DIMM
E3xx	Major	DIMM xx encountered a mismatch error	Added	Replace mismatched DIMM
E4xx	Major	DIMM xx failed Self Test (BIST).	Changed from 852x	Replace failed DIMM
D000	Fatal, blade will not boot	Unsupported SPI Flash	Added	Blade was manufactured with the wrong SPI Flash part. RMA the blade.

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