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Tech Notes

Cisco MCS-78XX Boot Error Codes

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Introduction

This document is designed to help you determine the root cause of bootup issues on the Cisco Media Convergence Server (MCS)-78xx servers.

Prerequisites

Requirements

Cisco recommends that you have knowledge of this topic:

- Cisco MCS-78xx server administration

Components Used

The information in this document is based on these software and hardware versions:

- Cisco MCS-78xx series servers
- Cisco MCS-78xx Operating System (OS) V2000.x or later

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Help us help you.

Please rate this document.

Excellent

Good

Average

Fair

Poor

This document solved my problem.

Yes

No

Just browsing

Suggestions for improvement:

(256 character limit)

Refer to [Cisco Technical Tips Conventions](#) for more information on document conventions.

POST

Power-On-Self-Test (POST) is a series of diagnostic tests that run automatically when the system is turned on (small program contained in the BIOS). Most of the POST errors in this document are general. However, others are related to Compaq-specific hardware.

POST checks these assemblies to ensure that the computer system functions properly:

- System ROM
- Keyboard
- Power supply
- System board
- Memory
- Memory expansion boards
- Controllers
- Diskette drives
- Hard drives
- Processor power modules
- Fans

POST Error Message

If POST finds an error in the system, an error condition is indicated by an audible or visual message. If an error code displays on the screen during POST or after you reset the system, use the instructions in the [POST Error Messages](#) table found in this document.

Note: Many of the actions listed require you to run Diagnostics or the Compaq System Configuration Utility.

These utilities can be downloaded from the Compaq/HP web site per these steps:

1. Go to 'http://welcome.hp.com/country/us/en/support.html?pageDisplay=support'. You are then redirected to http://h20000.www2.hp.com/bizsupport/TechSupport/SoftwareDescription.jsp?lang=en&cc=us&swItem=MTX-UNITY-I13227&jumpid=reg_R1002_USEN .

The HP/Compaq search window appears.

- Fill out the exact model and OS of your server, then click **Locate Software**.

The Software/drivers page for this particular model appears.

- Click **Utilities**.
- Download the Diagnostics Utility and System Configuration Utility from this page.

Note: The blue LED which is located at the front and rear of an HP MCS 78XX server is called the Unit Identification light (UID). The UID is a feature of all DL servers that allows the user to distinguish which server they are working on in the rack. The UID can be lit from the CIM console, as well as at the server by pressing either the front or rear UID button. Once lit, the LED is blue in order to help the user identify the unit.

The Recommended Action column lists the steps necessary to correct the problem. After completion of each step, run the Diagnostics program to verify whether the error condition is corrected. If the error code reappears, perform the next step, then run the Diagnostics program again. Follow this procedure until Diagnostics no longer detects an error condition.

Error Code	Audible Beeps	Probable Source of Problem	Recommended Action
A Critical Error occurred prior to this power-up.	None	A catastrophic system error, which cause the server to crash, has been logged.	Run Diagnostics. Replace failed assembly as indicated.
Unsupported Processor Detected System Halted	1 long, 1 short	Processor not supported by current system ROM.	Check documentation for supported processors, and if supported, remove the processor and update the system to latest ROM.
FATAL ROM ERROR: The System ROM is not properly programmed.	1 long, 1 short	ROM programmed in factory incorrectly.	Replace the physical ROM part.
101 - ROM Error	1 long, 1 short	System ROM checksum.	Run diagnostics. Replace failed assembly as indicated.

101 - I/O ROM Error	None	Options ROM checksum.	Run diagnostics. Replace failed assembly as indicated.
102 - System Board Failure	None	DMA, timers, or other system boards have failed.	Replace the system board. Run the Compaq System Configuration Utility.
104 - ASR-2 Timer Failure	None	System board failure.	Run diagnostics. Replace failed assembly as indicated.
162 - System Options Not Set	2 short	Configuration incorrect.	Run the System Configuration Utility and correct.
163 - Time & Date Not Set	2 short	Invalid time or date in configuration memory.	Run the System Configuration Utility and correct.
172 - Configuration Nonvolatile Memory Invalid	None	Nonvolatile configuration corrupt or jumper installed.	Run the System Configuration Utility and correct.
177 - Configuration Not Complete	None	Incomplete system configuration.	Run the System Configuration Utility and correct.
178 - Processor Configuration Invalid	None	Processor type or step does not match configuration memory.	Run the System Configuration Utility and correct.
180 - Log Reinitialized	None	N/A	N/A
			Run diagnostics.

201 - Memory Error	None	RAM failure.	Replace failed assembly as indicated.
203 - Memory Address Error	None	RAM failure.	Run diagnostics. Replace failed assembly as indicated.
207 - Invalid Memory Configuration - check DIMM (SIMM) Installation	None	Memory module installed incorrectly.	Verify placement of memory modules.
208 - Invalid Memory Speed - Check DIMM (SIMM) Installation	1 long, 1 short	The speed of the memory is too slow: o xx00 = expansion board, o 00yy = system board.	The speed of the memory modules must be 60 ns. Verify the speed of the memory modules installed and replace if slower than 60 ns.
209 - Memory Detection Failure. Check Memory Installation	1 long, 1 short	Unable to size memory.	Check DIMM Installation and if error persists, call the Compaq service provider.
211 - Cache Switch Set Incorrectly	None	Switch not set properly during installation or upgrade.	Verify switch settings.
212 - System Processor Failed/Mapped out	1 short	Processor in slot x failed.	Run diagnostics and replace failed processor.
214 - DC-DC Converter Failed	None	PowerSafe Module (DC-DC Converter) failed.	Run diagnostics. Replace failed assembly as indicated.
		PPM	

215 - Processor Power Module has lost Redundancy in Socket x	None	(Processor Power Module) (DC-DC Converter) has lost redundancy.	Run Diagnostics. Replace failed assembly as indicated.
216 - Voltage Regulator Module for Processor x no longer redundant.	None	Redundancy failed in PPM.	Replace the PPM to restore redundancy.
216 - Processor PPM has lost Redundancy Module X	None	Indicated PPM (DC-DC Converter) has lost redundancy.	Replace failed assembly as indicated.
218 - Cache Accelerators Not Installed. System Halted.	None	Cache Accelerators not installed or improperly installed.	Check the Cache Accelerator installation.
219 - Tag Update Rules SRAM Failure. System Halted	None	Catastrophic chipset failure.	Call the Compaq service provider.
219 - Snoop Rules SRAM Failure. System Halted	None	Catastrophic chipset failure.	Call Compaq service provider.
220 - Cache Accelerator Slot x initialization Failed. System Halted.	None	Cache Accelerator in slot x improperly installed or bad.	Check Cache Accelerator installation and if properly installed, replace.
221 - Power Fault On Processor Bus X	None	A PPM on indicated bus is in a failed state.	Run Diagnostics. Replace failed assembly as indicated.
301 - Keyboard Error	None	Keyboard failure.	Turn off the computer, then reconnect the keyboard.
301- Keyboard Error or Test Fixture Installed	None	Keyboard failure.	Replace the keyboard.

zz-301 - Keyboard Error	None	Keyboard failure. (zz represents the Keyboard Scan Code.)	1. A key is stuck. Try to free it. 2. Replace the keyboard.
303 - Keyboard Controller Error	None	System board, keyboard, or mouse controller failure.	1. Run Diagnostics. 2. Replace failed assembly as indicated.
304 - Keyboard or System Unit Error	None	Keyboard, keyboard cable, or system board failure.	1. Make sure the keyboard is attached. 2. Run Diagnostics to determine which is in error. 3. Replace the part indicated.
40X - Parallel Port X Address Assignment Conflict	2 short	Both external and internal ports are assigned to parallel port X.	Run the System Configuration Utility and correct.
601 - Diskette Controller Error	None	Diskette controller circuitry failure.	1. Make sure the diskette drive cables are attached. 2. Replace the diskette drive and/or cable. 3. Replace the system board.
605 - Diskette Drive Type Error	2 short	Mismatch in drive type.	Run the System Configuration Utility to set the diskette type correctly.
		Both external	Run the

1151 - Com Port 1 Address Assignment Conflict	2 short	and internal serial ports are assigned to COM1.	System Configuration Utility and correct.
1152 - Com Port 2, 3, or 4 Address Assignment Conflict	2 short	Both external and internal serial ports are assigned to COM2, COM3, or COM4.	Run the System Configuration Utility and correct.
1610 - Temperature violation detected. Waiting for system to cool.	2 short	Ambient system temperature is too hot.	Check the fan in the system environment.
1611 - Fan Failure detected.	2 short	Required fan not installed or spinning.	Check fans.
1611 - I/O Fan (Fan X) failure detected.	2 short	I/O fan has failed.	Replace the failed fan.
1611 - CPU Fan (Fan X) failure detected.	2 short	CPU fan has failed.	Replace the failed fan.
1612 - Primary power supply failure.	2 short	Primary power supply has failed.	Replace power supply as soon as possible.
1613 - Low System Battery on power.	None	Real time clock system battery is running low.	Run diagnostics. Replace failed assembly as indicated.
1615 - Power Supply Failure, Power Supply Unplugged, or Power Supply Fan Failure in Bay X.	None	A power supply has failed.	Replace or check specified power supply.
1617 - Fan controller not responding.	2 short	Fan controller failure.	Check and replace failed controller assembly.
1617 - I/O Fan controller not responding.	2 short	I/O fan controller failure.	Check and replace failed controller assembly.
1617 - CPU Fan controller not responding.	2 short	CPU fan controller	Check and replace missing or failed

		failure.	controller assembly.
1618 - PCI slots powered down. Check PCI hot plug enabler connectors.	None	PCI hot plug enabler is missing or failed.	Check and replace missing or failed controller assembly.
1620 - Locked SCSI Bus Detected. Verify SCSI bus cabling. System halted.	None	SCSI bus failure.	1. Run diagnostics. 2. Replace failed assembly as indicated.
1621 - Current SCSI Jumper Board Not Installed.	None	Improper SCSI bus cabling.	Check documentation for proper SCSI bus cabling.
1622 - Internal SCSI Jumper Board Not Installed.	None	The system has detected that the array enabler board is not installed.	Install the array enabler board.
1703 - SCSI cable error detected. Internal SCSI cable not attached to system board connector. System halted.	None	Incorrect cabling.	Ensure that the integrated SCSI controller has SCSI termination attached.
1720 - Slot x Drive Array - SMART Drive Detects Imminent Failure SCSI: Port y: SCSI ID x	None	Indicated drive has reported a SMART predictive-failure condition and can fail at some time in the future.	1. If the drive is part of a nonfault-tolerant configuration, back up all data before you replace the drive and restore all data afterward. If the drive is part of a fault-tolerant configuration do not replace the drive unless

			all other drives in the array are online. 2. Press F1 to resume.
1721 - Slot x Drive Array - Drive parameter tracking predicts imminent failure. The following devices should be replaced when conditions permit. Do not replace the drive unless all other drives in the array are online. Back up data before replacing drive(s) if using RAID 0.	None	Monitor and performance threshold exceeded condition.	Replace the drive when it is reasonable. The drive has not failed, but Compaq recommends you replace the drive.
1724 - Slot x Drive Array - Physical Drive Position Change(s) Detected- Logical drive configuration has automatically been updated.	None	Logical drive configuration has been updated automatically following physical drive position changes.	Press F1 to resume.
1726 - Slot x Drive Array- Array Accelerator Memory Size Change Detected	None	Indicates array accelerator configuration has been updated automatically due to replacement of array accelerator (or controller) with one having different memory size.	Press F1 to resume.
		Controller has detected an additional array of drives that	

<p>1727 - Slot x Drive Array- New Logical Drive(s) Attachment Detected. If more than 32 logical drives, this message will be followed by: Auto-configuration failed: Too many logical drives.</p>	None	<p>was attached when the power drive configuration information has been updated to add the new logical drives. The maximum number of logical drives supported is 32. Additional logical drives are not added to the configuration.</p>	<p>Press F1 to resume.</p>
<p>1729 - Disk consistency initialization in progress RAID 4/5 performance may be lower until Auto Reliability Monitoring has completed automatic parity consistency initialization.</p>	None	Normal operation.	<p>This message is normal following the initial configuration of RAID 4 or RAID 5 logical drives. This POST message goes away and performance of the controller improves after the parity data is initialized by ARM (an automatic process that runs in the background on the controller).</p>
<p>1730 - Fixed Disk 0 does not support DMA Mode.</p>	None	Hard drive error.	<p>Run the System Configuration Utility and correct.</p>
<p>1731 - Fixed Disk 1 does not</p>	None	Hard drive	<p>Run the System Configuration</p>

support DMA Mode.		error.	Utility and correct.
1740 - Fixed Disk 0 failed Set Block Mode.	None	Hard drive error.	Run the System Configuration Utility and correct.

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Related Information

- [Compaq/HP Software and Driver Server](#) 
- [Voice Technology Support](#)
- [Voice and IP Communications Product Support](#)
- **Recommended Reading:** [Troubleshooting Cisco IP Telephony](#) 
- [Technical Support & Documentation - Cisco Systems](#)

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