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## System Codes and Messages: Dell™ Dimension™ 4100 System Reference


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### Diagnostic Codes







Your computer is equipped with four diagnostic lights, which are labeled "A," "B," "C," and "D" on the back of the computer. Each of the four lights can be yellow, green, or off as shown in [Table 1](#). When the computer is turned on or restarted and it is functioning normally, the lights flash during power-on self-test (POST). After the computer starts, the lights remain green to signify normal computer operation.






If a malfunction is detected and the computer fails to start, the lights display a code that identifies the problem. Write down the diagnostic code displayed and look it up in Table 1.

**Table 1. Diagnostic Codes**

Diagnostic Code	Definition	Corrective Action
 <p>The diagram shows a horizontal row of four circular lights. Below each light is a letter: 'A' under the first, 'B' under the second, 'C' under the third, and 'D' under the fourth. The lights are all shown as grey circles, indicating they are off.</p>	<p>Power up default.</p>	<p>Make sure that the computer is connected to a known working electrical outlet, and then check whether the <a href="#">front-panel</a> power light is on or off. If the power light is off, check the <a href="#">power supply</a>. If the problem persists, see "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.</p> <p>See <a href="#">Precautionary Measures</a>, and then remove all <a href="#">cards</a>. If the computer still does not start, see "Contacting Dell" in the <i>Solutions</i></p>

		<p><i>Guide</i> for instructions on obtaining technical assistance.</p>
 <p>A B C D</p>	<p>System board is receiving power, but the BIOS is not executing.</p>	<p>Set the <a href="#">configuration jumper</a> to Maintenance mode, and restart the computer. Exit and save changes in the <a href="#">system setup program</a>. Turn off the computer and reset the configuration jumper to Normal mode, and then restart the computer.</p> <p>See <a href="#">Precautionary Measures</a>, and then remove all <a href="#">cards</a> and restart the computer to determine if a resource conflict exists. If a conflict exists, <a href="#">resolve the conflict</a>. If the problem persists, see "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.</p>
 <p>A B C D</p>	<p>Recovery mode from BIOS failure.</p>	<p>Set the <a href="#">configuration jumper</a> to Maintenance mode and restart the computer. Exit and save changes in the <a href="#">system setup program</a>. Turn off the computer and reset the configuration jumper to Normal mode, and then restart the computer.</p> <p>See <a href="#">Precautionary Measures</a>, and then remove all <a href="#">cards</a> and restart the computer to determine if a resource conflict exists. If a conflict exists, <a href="#">resolve the conflict</a>. If the problem persists, see</p>

		"Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
	Microprocessor has failed a BIOS test.	If the problem persists, see "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
	Memory failed to be sized or enabled.	Reseat the <a href="#">memory modules</a> . If the problem persists, see "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
	PCI bus failure has occurred.	See <a href="#">Precautionary Measures</a> , and then remove all <a href="#">cards</a> and restart the computer to determine if a resource conflict exists. If a conflict exists, <a href="#">resolve the conflict</a> . If the problem still persists, see "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
	Video controller failed to initialize or respond.	Reseat the <a href="#">video card</a> . If the problem persists, see "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
	IDE bus failure has occurred.	Reseat the IDE cables. If the problem persists, see "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
	USB port or a device connected to it has failed initialization.	Disconnect the device from the <a href="#">USB connector</a> . If the problem persists, see "Contacting Dell" in the <i>Solutions Guide</i> for

		instructions on obtaining technical assistance.
	Other failure.	See "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
	Computer has started and turned over control to the operating system.	No action is necessary.
<p>  = yellow   = green   = off </p>		
<p><i>NOTE: The <a href="#">Glossary</a> defines abbreviations and acronyms.</i></p>		

## POST Beep Codes

If the monitor cannot display errors or problems, during POST the computer might emit a series of beeps, or beep code, that identifies the problem. Table 2 lists the POST beep codes.

**Table 2. POST Beep Codes**

Beep Codes	Possible Cause	Corrective Action
1	A memory refresh failure occurred.	<a href="#">Reseat the memory modules.</a>
2	Memory parity cannot be reset.	<a href="#">Reseat the memory modules.</a>
3	A failure occurred in the first 64-KB of memory.	<a href="#">Reseat the memory modules.</a>
4	The system timer is not operational.	See "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
6	8042 Gate A20 cannot be toggled.	See "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
7	An exception interrupt error occurred.	See "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining

		technical assistance.
8	A read/write error occurred in the display memory.	<a href="#">Reseat the video card.</a>
10	A CMOS shutdown register test error occurred.	See "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
11	An invalid BIOS is installed.	See "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
<i>NOTE: The <a href="#">Glossary</a> defines abbreviations and acronyms.</i>		

## System Messages

The first column in [Table 3](#) lists (in alphabetical order) system messages that might appear on the screen during the boot routine or during normal system operation. The second column in the table lists probable causes of the messages, and the third column either provides a corrective action or refers you to a source for resolving the problem.

**Table 3. System Messages**

Message	Possible Cause	Corrective Action
8042 Gate-A20 error	The keyboard controller failed its test.	If you receive this message after making changes in the <a href="#">system setup program</a> , enter the program and restore the original value(s).
Address Line Short!	Error in the address decoding circuitry in the memory.	<a href="#">Reseat the memory modules.</a>
C: Drive Error C: Drive Failure	The hard drive is not working or is not configured correctly.	Ensure that the drive is installed correctly in the computer and defined correctly in the <a href="#">system setup program</a> .
Cache Memory Bad, Do Not Enable Cache	Cache memory is not operating.	See "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
CH-2 Timer Error	An error is occurring on the timer on the system board.	See "Contacting Dell" in the <i>Solutions Guide</i> for instructions on obtaining technical assistance.
CMOS Battery State Low CMOS Checksum	The system configuration information in the system setup program is incorrect, or the battery charge may be low.	Enter the <a href="#">system setup program</a> and verify the system configuration; then restart the computer.

Failure  CMOS System Options Not Set  CMOS Display Type Mismatch  CMOS Memory Size Mismatch  CMOS Time and Date Not Set		
Diskette Boot Failure	Drive A or B is present but has failed the BIOS POST.	Ensure that the <a href="#">drive</a> is installed correctly in the computer and defined correctly in the <a href="#">system setup program</a> . Check the interface cable at both ends.
DMA Error  DMA 1 Error  DMA 2 Error	Error in the DMA controller on the system board.	The keyboard or <a href="#">system board</a> may need to be replaced.
FDD Controller Failure  HDD Controller Failure	BIOS cannot communicate with the floppy drive or hard drive controller.	Ensure that the <a href="#">drive</a> is installed correctly in the computer and defined correctly in the <a href="#">system setup program</a> . Check the interface cable at both ends.
INTR1 Error  INTR2 Error	Interrupt channel on the system board failed to POST.	The keyboard or <a href="#">system board</a> may need to be replaced.
Invalid Boot Diskette	The operating system cannot be located on drive A or drive C.	Enter the <a href="#">system setup program</a> and confirm that drive A or drive C is properly identified.
Keyboard Error	The BIOS has detected a stuck key.	Make sure that nothing is resting on the keyboard; if a key appears to be stuck, carefully pry it up. If the problem persists, you may need to replace the keyboard.
KB/Interface Error	An error occurred with the keyboard connector.	The keyboard or <a href="#">system board</a> may need to be replaced.
No ROM Basic	The operating system cannot be located on drive A or drive C.	Enter the <a href="#">system setup program</a> and confirm that drive A or drive C is properly identified.
<b>NOTE:</b> The <a href="#">Glossary</a> defines abbreviations and acronyms.		

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