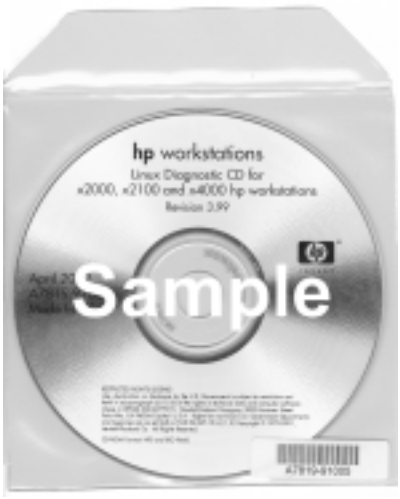
Linux Diagnostic CDROM - How To Perform e-Diag Tools Test

Overview:

e-Diag Tools, a manufacturer's Linux Diagnostic CDROM, can diagnose PC Host hardware related problems. This Service Notes explain how to perform e-Diag Tools test and suggest possible solutions for listed problems.



BOOT THE PC HOST WITH THIS LINUX DIAGNOSTIC CDROM
ILLUSTRATION 1

Procedure:

1. Insert the "Linux Diagnostic CD" into the PC Host DVD ROM Drive.
2. Reset the system or perform system Power OFF and then Power ON to perform the boot from CDROM rather than hard drive.

> **NOTE**
> If you are unable to boot from DVD ROM Drive, restart the Host PC and press "F12" to select the boot drive. It can also changed the boot order from the Setup utility.

3. [e-Diag Tools] window will display, press "F2" function key on the keyboard to continue e-Diag.
4. [Configuration Detection] window will appear. Press "F2" to continue.
5. [Configuration Description] window will appear. Press "F2" to continue.
6. [Basic System Test] window will appear. Press "F2" to continue.
   [Basic System Test Running] will appear and the test takes approximately 10 minutes.

> **NOTE**
> During graphic tests, the screen will blink some times. This is normal. Do not stop the test.

7. [Basic System Test Result : PASSED] will appear if all test is passed. Press "F3" to quit.
   Also, if you press "F2", Advanced Test is selected and more detailed tests will be performed.
8. Remove "Linux Diagnostic CD" .
9. Press "F3" to exit and reboot the system.

Below is the summary of tests performed on Basic System Test and its solutions in case of some of tested item is not passed.

Table 1:

SUB	Component	Action
Basic System Tests, to verify the correct functioning of the processor and subsystems:	•Basic processor functionality	1.Remove and re-set CPU and PCI cards on Mother board. 2.Check PCI card (BIT3, Serial card) tests. 3.Replace PC HOST if System is not active.
	•DMA controller	
	•Interrupt controller	
	•Timer	
	•Real time clock	
	•CMOS Validity	
	•PCI system	
	•MMX	
	•DMI	
	•Multi-processor (if appropriate)	
Memory Tests, to check the correct functioning of main and cache memory:	•BIOS ROM	1.Remove and re-set the all memories. 2.Replace the all memory.
	•Parity	
	•Address	
	•Refresh	
	•Data bus	
	•Cache memory	
IDE hard disk drive tests, to check the basic functioning of any IDE hard disk drives.	•Basic IDE HDD functionality.	1.Check the IDE cable connection. 2.Replace HDD or IDE cable.
SCSI hard disk drive, to check the basic functioning of any SCSI hard disk drives:	•Basic SCSI HDD functionality.	Usually GE don't use it. Replace PC HOST if System is not active.
	•SCSI disk buffer	
Keyboard tests:	•Keyboard controller	1. Check the connection for keyboard. 2. Replace keyboard and keyboard-cable.
	•Keyboard clock line	
	•Keyboard data line	
VESA Video memory test	•VESA Video memory test	1.Remove and install Graphic Card. 2.Replace Graphic Card
USB test	•USB test	Usually GE don't use it. Replace PC HOST if System is not active.

Table 1:

SUB	Component	Action
Other tests:	•Basic serial port test (does not include data transfer - this is performed in Advanced Test).	It is Mother board error. Replace PC HOST if System is not active.
	•Basic parallel port test (does not include actual printing - this is performed in Advanced Test).	Usually GE don't use it. Replace PC HOST if System is not active.

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