

Product Support Bulletin

Subject: HP Laserjet Printers Cause The ActionNote 4SLC series and ActionNote 500C Units to Lock-up During Power On When Attached.

Date: 07/26/95
Page(s): 1 of 1

PSB No: S-0185
Originator: AV

Field reports indicate that when some HP printers are attached to the parallel port, the computer hangs/malfunctions during power on. Investigation has verified these reports. This situation can be quickly diagnosed, and corrected by following the procedure below.

Description:

When the HP Laserjet is powered on and the printer cable is attached to the notebook the computer may hang or malfunction during power on.

Corrective Measure:

When the cable is not attached and the printer/computer are powered on to a ready state and then the cable is attached, the units functions normally. The notebooks will also power on properly if the printer/computer are attached and the notebook is powered on first.

Conclusion:

The issue reported was easily duplicated on the AN-500C. However, the AN4SLC varied depending on which BIOS version was being used. If the older 2.06s BIOS version was installed, there was no problem. With the 2.07S version of the BIOS, follow the power on procedure listed above.

Product Support Bulletin

Subject: Epson ActionNote AN - 4SLC/33 Questions and Answers

Date: 10/08/93

PSB No: S-0169

Page(s): 1 of 8

Originator: AV

GENERAL

Q1. What is the Epson AN-4SLC/33?

A1. The Epson AN-4SLC/33 is Epson's newest notebook computer. The AN-4SLC/33 offers the full functionality of an AT-compatible computer, with excellent expansion capabilities.

Q2. What are some of the standard features?

A2. The Epson AN-4SLC/33 includes a 33 MHZ 486SLC microprocessor; support for an optional Cyrix CX 83S87-33 numeric coprocessor; 4 MB of RAM (2 MB soldered on motherboard and 2 MB memory card); 1 removable, rechargeable NiCad battery; a 3.5", 1.44 MB floppy disk drive; 640 x 480, back-lit monochrome VGA-compatible LCD; one parallel port, two RS-232C serial and an RJ-11 jack (when modem is installed, COM2 is disabled); an external VGA analog monitor port; connector for an external keyboard or mouse; Logitech Trackball and a "Y" external keyboard/ mouse adapter that will allow you to use a pointing device and keyboard simultaneously.
MS-DOS 6.0, Windows 3.1. and a carrying case.

Q3. What are the options and expansion capabilities?

A3. The 4 MB of system RAM can be expanded to 8 MB total by removing the existing 2 MB memory module and installing an optional 6 MB memory module. A 2400/9600 Data/Fax Modem option kit is available which contains Bitcom and Winfax Lite software. In addition to the 6 MB memory module and 2400/9600 Data/Fax Modem Kit, Epson will offer a spare NiCad battery pack, and a Cigarette Auto Adapter. Further upgrades include a Cyrix CX 83S87 - 33 math coprocessor that is available to customers through their local Cyrix dealer.

Q4. How much does the Epson AN-4SLC/33 weigh?

A4. 5.5 pounds with the hard drive cartridge and battery installed. At 1.63" by 8.75" by 11", the Epson AN-4SLC/33 fits easily in a standard briefcase.

BATTERY

Q5. What kind of battery life can you expect from the Epson AN-4SLC/33?

A5. Testing has revealed, under typical operating conditions, an estimated battery life of 1.5 to 2 hours. Depending on the configuration and usage, the battery life could be more or less.

Q6. Are additional batteries available? How are the batteries charged?

A6. Yes, additional batteries are available as an option. The batteries can be charged in the Epson AN-4SLC/33 by connecting the standard AC adapter or optional Cigarette Auto Adapter. The notebook should be turned off or in "suspend mode" to charge the battery.

Q7. Can batteries be changed "on the fly"?

A7. No! The Epson AN-4SLC/33 must be powered off before changing the battery. Attempting to change it while the computer is powered on will damage the battery or computer (possibly both) and void the warranty.

Q8. How long does it take to fully charge the battery?

A8. It takes 3.5 to 4 hours to fully charge the battery. Note that if you do not completely charge a new battery and attempt to use the computer, you may experience atypical operation.

Q9. Are there any other power supply options?

A9. Yes, an automotive cigarette lighter adapter is available.

Q10. How much do the batteries weigh?

A10. Approximately 8 ounces each.

DISK DRIVES

Q11. What hard drives are being used?

A11. The Toshiba MK1422FCV, 2.5" 86MB HDD, Areal A120, 2.5" 136.9MB HDD, Toshiba MK1522FCV, 2.5" 126.3 MB HDD, Seagate ST 9140AG, 2.5" 122 MB, Areal A180, 2.5" 174.6 MB HDD, and Seagate ST9190AG, 2.5" 164 MB HDDs are currently being offered. Other hard drives may be available at a later date.

Q17. What floppy disk drive is used?

A17. The Teac FD-05HF, 3.5" 1.44MB HDD.

Q18. What external floppy drives can be used?

A18. Pacific Rim and ValuStor external, 1.2MB FDDs have been found compatible.

LCD DISPLAY

Q19. What type of LCD display is used?

A19. The LCD is a large 10" 640 x 480 VGA backlit monochrome display with a 7 1/2 - inch by 5 3/4- inch display area.

Q20. Can you display on the external CRT port and LCD simultaneously and what are the maximum resolutions available ?

A20. Yes - the computer will automatically recognize the external VGA monitor if it is attached before the AN-4SLC/33 is turned on. You have the ability to control CRT/PANEL simulscan or whether just to use the external CRT or internal LCD through a utility program called VGACONF.EXE . The maximum resolution for the built in LCD is 640 x 480 x 16 colors. The maximum resolution for the external CRT port is 800 x 600 x 16 colors.

Q21. What video drivers are supplied with the computer?

A21. The AN-4SLC/33 Reference Diskette contains the following VGA drivers:
Lotus 1-2-3, version 2.x, 100 x 60 text; Microsoft Windows Ver. 3.0 640 x 480 by 16 colors and 800 x 600 by 16 colors; and Word Perfect V5.1 800 x 600 by 16 colors. Please note that the 800 x 600 drivers will not work on the internal LCD. Also the VGA configuration utility - VGACONF.EXE - is provided for LCD enhancements.

Q22. How do you control normal versus reverse video display?

A22. This is accomplished through VGACONF.EXE. There are four choices available.

ETDG - Enable text and disable graphics reverse video
NOREVERSE - disable text and graphics reverse video
REVERSE - enable text and graphics reverse video
DTEG - Disable text and enable graphics reverse video

(Normal is black characters on a white background).

CPU/CHIPSET

Q23. What type of microprocessor does the AN-4SLC/33 use?

A23. The AN-4SLC/33 comes with a Cyrix Cx 486SLC/33 MHZ microprocessor. This processor is an advanced 32-bit X86-compatible processor offering high performance and integrated power management on a single chip. The 486SLC is 486SX instruction set compatible and 386SX bus compatible. It features a 1-KB internal, two-way set associative cache.

Q24. Can I upgrade my AN-4SLC/33 by using an Intel Overdrive Chip?

A24. The Intel Overdrive Chip is not compatible with the Epson AN-4SLC/33 notebook computer.

Q25. What type of System BIOS is in the AN-4SLC/33 and how do I run the SETUP program?

A25: The SYSTEM and VGA BIOS conform to Seiko Epson BIOS specifications in a single 1024-Kb (OT) EPROM. It supports Shadow Ram. To run the SETUP program, you need to briefly press the delete key when the AN-4SLC/33 is booting. While the AN-4SLC/33 is counting the memory, you will see a message to hit the "delete" key to run setup. If you pressed the delete key, you will see the "BIOS Setup Program - AMI BIOS SETUP Utilities (C) 1990 American Megatrends Inc, All Rights reserved " screen.

Q26. What Real Time Clock chip does the AN-4SLC/33 use?

A26. The Dallas RTC (DS 1287) chip, which includes the lithium backup battery, is socketed on the system board.

SOFTWARE

Q27. What software and documentation is included with the AN-4SLC/33?

A27. Currently we are offering MS-DOS Version 6.00, MS Windows Ver 3.1, The AN-4SLC/33 User's Guide, Quick Reference Guide, Reference Diskette, Logitech Trackman Trackball software and User's Guide.

Additionally: If the unit was purchased with the optional internal modem, Winfax Lite and Bitcom software are included.

Q28. What about power management software?

A28. On the AN-4SLC/33 Reference Diskette, under the UTILS sub-directory you will find the file VGACONF.EXE. One of the selections available in VGACONF.EXE is the Standby Timer option. This feature sets the LCD power shutdown time when there is no keyboard or display activity. Whatever time is set by this option, will over ride any time set in the SETUP utility.

POWER SAVE FEATURES

Q29. Are there any special power saving features to help prolong battery life?

A29. Yes. One way to help prolong battery life is to select the "Advanced Chipset Setup" in the SETUP program and enable the Power Management Function and the other is to manually put the computer in "Suspend Mode".

The Power Management Utility in SETUP turns off the LCD and hard drive to reduce battery drain when the system is inactive and running off the rechargable battery pack. The three devices you can select for the time of inactivity timeout are 1) the Display Timeout Counter 2) Hard Disk Timeout Counter 3) System Timeout Counter. This is in addition to the "display timeout option" discussed previously with VGACONF.exe.

Q30. How do you manually put the AN-4SLC/33 in "suspend mode"?

A30. This can be accomplished by sliding the "Suspend/Resume" button to the right or by closing the AN-4SLC/33 LCD.

Q31. How do you "resume" the AN-4SLC/33?

A31. A keystroke should "wake-up" the AN-4SLC/33. Preferably, the spacebar should be used.

Q32. What if the computer has entered the Standby timeout mode and a keystroke doesn't bring it back to normal operating mode?

A32: There are some applications that may intercept any keystrokes before they can be seen by the system BIOS. You may have to disable the timeout in SETUP (or VGACONF.EXE) to use the problem application on battery power.

Q31. Any other power saving tips?

A29. One more - with the keyboard NUMLOCK on, use the keyboard command <Ctrl>-<Alt>-<+/-> [on the embedded numeric keypad] to change the CPU speed from 33 MHZ to 8 MHZ. This can save a significant amount of power and, with several types of applications (such as word processing), will not appear to be appreciably slower.

COMPATIBILITY

Q30. How's the software compatibility with the Epson AN-4SLC/33?

A30. Very good. Almost every type of software that's been tried on the Epson AN-4SLC/33 has worked as it should. You may need to experiment with the different display options for a given package - some will work fine as standard VGA, others will have a special option for an LCD display. You can also experiment with reversing the display mode and enabling contrast enhancements using the VGACONF.EXE utility found on the Reference Diskette.

Q31. How well does the AN-4SLC/33 work with local area networks?

A31. Very well. Novell has certified the AN-4SLC/33 as a workstation and in-house testing has been completed for several other networking environments as well.

MISCELLANEOUS

Q32. What is the difference between the AN-4SLC/25 and the AN-4SLC/33 notebook computers?

A32. There are a few minor differences between the two models as listed below.

The AN-4SLC/33 motherboard has a 486SLC/33 CPU, a crystal oscillator running at 66.67 MHZ, and a resistor and capacitor has been added.

The variable speed math coprocessor from Intel only goes up to a speed of the 25 MHZ., therefore we only recommend the Cyrix CX 83S87-33 math coprocessor for use in the AN-4SLC/33.

Additional configurations have been made available with the 33 MHZ version. Unlike the 25 MHZ version we are offering a 170 MB configuration (without a 2400/9600 data/fax modem) and 170 MB configuration (with the 2400/9600 data/fax modem).

Although the AN-4SLC/25 and AN-4SLC/33 LCD's are functionally equivalent, the AN-4SLC/33 LCD assembly has a separate p/n of 2010993/33 whereas the 25 MHZ LCD assembly is 2010993. This is because of the label that is on the LCD. The 25 MHZ version says ActionNote 4SLC/25 and the 33 MHZ version says ActionNote 4SLC/33.

Q33. How do I get an external keyboard or numeric keypad to work ?

A33. You must have external keyboard/mouse adapter attached to the port for the keyboard or numeric keypad to work. Attach the keyboard or numeric keypad to the bottom connector with the keyboard icon on it. With the Epson numeric keypad, you must use the "pigtail" that comes with the option and you must hit the numlock key on the keypad if numlock is not on at boot.

NBSL/20					
VER	PART #	DESC	TYPE	LOC	REASON
1.25		CMGO-A03	ROM		INITIAL RELEASE (See TIB No: NBSL-002 For NB-SL FLASH BIOS version history.

NBSL/25					
VER	PART #	DESC	TYPE	LOC	REASON
1.25		CMGO-A03	ROM		INITIAL RELEASE (See TIB No: NBSL-002 For NB-SL FLASH BIOS version history.

ACTIONNOTE 4SLC/25					
VER	PART #	DESC	TYPE	LOC	REASON
2.04S	2011208	AWARD	PLCC	U12	INITIAL RELEASE

ACTIONNOTE 4SLC/33					
VER	PART #	DESC	TYPE	LOC	REASON
2.05S	2011208	AWARD	PLCC	U12	INITIAL RELEASE

ACTIONNOTE 4000					
VER	PART #	DESC	TYPE	LOC	REASON
1.02S		AWARD	27C010	U30	INITIAL RELEASE