

Product Support Bulletin

Subject: Proper Method for Running Benchmark and Diagnostics Programs

Date: 06/04/93

PSB No: S-0158

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Originator: MWT

This bulletin describes the proper method for running any benchmark or diagnostics programs. This applies to any computer system.

In most cases, the computer should be started using an MS-DOS boot diskette that's 'clean' - in other words, one with no CONFIG.SYS or AUTOEXEC.BAT files. The appropriate executable can then be run, either from diskette or hard drive.

There will be some exceptions to the above rule. In attempting to benchmark or troubleshoot any add-on that requires a device driver (CD-ROM, local area network, etc.), obviously the necessary device driver(s) must be loaded. Also, some programs will require a minimum number of FILES or BUFFERS to be defined in the CONFIG.SYS file. Such programs will usually display this requirement if they are run without the necessary CONFIG.SYS file.

For the most consistent results, use the absolute minimal boot configuration that's allowed by the hardware being tested.

Product Support Bulletin

Subject: Equity Series SIMM Compatibility

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PSB No: S-0136

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Originator: JAD

Due to the influx of third party SIMMs on the market, there are some that are not compatible with Epson products. This bulletin is intended to be an aid in ensuring that only compatible SIMMs are chosen for use in Epson's Equity Series of computers.

The SIMMs in question were SEIMENS, CUMULUS and KINGSTON. Installing these SIMMs in Epson products may cause the following errors:

Parity Check 1
18FFFE 0000 202 Memory Address Error
164 System Options Not Set
1500 E000 201" DOS RAM Address Error

It was thought that the chips used in these SIMMs were of poor quality.

Epson Portland evaluated the SIMMs in question and found that this was not true. The problem is caused by the SIMM circuit boards (ITE and TECAP circuit boards) used to manufacture the SIMM modules. The dimensions of these boards are not compatible with industry standard SIMM sockets. This may result in incomplete contact between the SIMM assembly and it's socket. This is caused by insufficient size of the contact surfaces in these products. Also enlarged holes in the TECAP product allow the component pin to pass entirely through the hole without making contact.

It is recommended that only SIMMS meeting industry standard contact surface specifications be used in Epson Equity computer products.

Some recommended SIMMs that were tested and found Compatible are:

Toshiba
Matsushita
CDC Enterprises
Samsung
Aculogic

For more information contact Technical Support.

EPSON

EPSON AMERICA, INC.

INFORMATION

Product Support Bulletin

Subject: Maximum Number of Printers Supported by Current Equity Computers

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PSB No: S-0128

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Originator: KAS

As computing environments increase in complexity, there has been an increasing number of instances that require the support of several printers by one computer. One common example is that of using Novell Netware's print server capabilities to provide printer access to a large group of users with differing printer requirements. Netware is capable of supporting three (3) parallel and two (2) serial printers on one server. Recent testing has shown that the Equity 386/25 Plus, Equity 386/25, Equity 386/20 and the Equity 386SX Plus will support three (3) parallel ports along with two (2) serial ports. The key factor in providing support for a third parallel port is the need for a parallel interface card that can be set to the IBM Monochrome Graphics/Parallel printer I/O address at 3BCh. The computer looks for this address first and, if present, will assign the parallel port on that card as LPT1. The built-in parallel port (I/O address 378h) will then be addressed as LPT2. We also had an AST I/O Mini serial/parallel card addressed at I/O address 278h, which was then reassigned to LPT3. Each of the three parallel ports was attached to a printer. There was also a printer attached to each of the two serial ports. All five printers were then set to print simultaneously under Netware Version 2.15 Rev. C using PCONSOLE. All five printers were able to print the documents assigned to them, simultaneously. The units were then tested using WordPerfect 5.1 on the network and again were successful in printing to the five (5) printers at the same time. The last tests were run with the units booting under DOS 4.01 and screen prints being directed to each of the printers. WordPerfect 5.1 was also used to direct documents to each of the printers. Again all five (5) printers were able to print the files that were sent to them.

Although not all Equity computer models were tested in this situation, the Equity models 386SX, IIe, III+ and II+ should work in a similar manner if the instructions above are used as a guide. There is one item of which to be aware when using this setup and that is the system will complete the RAM count and lock up if using a monochrome monitor. If you need to use three parallel ports, USE A COLOR MONITOR.

INFORMATION

Product Support Bulletin

Subject: Using High Capacity ESDI and SCSI Hard Disk Drives with the Current Equity Series Computers

Date: 10/10/90
Page(s): 1 of 2

PSB No: S-0091A
Originator: PNM

The purpose of this bulletin is to provide some specific examples of how to install high capacity ESDI and SCSI hard disk drives in the current Equity Series computers.

The largest drive directly supported by the ROM BIOS (ver 220) in the Equity II+ and Equity III+ has a capacity of 130Mb, while the largest supported directly by the ROM BIOS in the Equity Ile, 386SX, 386/20 and 386/25 is 153Mb. To allow our units to be used in stand alone and especially network environments that require higher drive capacities, the use of the Adaptec ACB 2320 controller (available with the Equity 386/20) with the optional ACB-BIOS (available from Adaptec) will provide support for a variety of ESDI drives up to 314Mb. The AC&BIOS also has the ability to read the ESDI drive parameters from the drive itself. This will allow it to configure virtually any ESDI drive.

NOTE: The Adaptec BIOS ROM should be installed in location U25. In order for it to work, the jumper J13 pin 1 must be installed. Caution should be used when ordering the BIOS ROM as problems have been experienced when using version B. Versions A and C perform normally.

The WD1007V-SE1 controller is another option that can be used with high capacity ESDI drives that are not supported by the ROM BIOS drive tables. When using this controller' make sure that all pins on jumper on W1 are open. You can run SETUP and use Type 1 for the drive type or let the controller automatically set it at the end of the low level format routine provided by the controller's BIOS. To start the WD-BIOS Format Utility, run DEBUG and enter G=CC00:5. This will bring up a menu listing the operations that are available. Run the low level format and either enter the defective blocks listed on the drive by hand or let the program enter them automatically. Continue with the "Verify" and "Surface Analysis" utilities and finally finish with the "Set Drive Type and Exit". At this point there are 5 options from which to choose using the "+" and 'I-' keys to toggle through the available choices. Select the 'Translation Option-63 SPT (Sectors Per Track)" if the hard drive has more than 1024 cylinders or "Non-Translation" for drives with less than 1024 cylinders.

The next step after completing the low level format is to run the Novell COMPSURF utility. When setting up the COMPSURF Parameters it will ask if you want to "Format the drive?" where you will choose the "NO" response and proceed to the next option. When asked if you want to "Retain the Bad Track Table" answer 'YES" and continue on with the rest of the COMPSURF options. After completion of the COMPSURF utility, continue on with the rest of the NETGEN installation.

The use of high capacity SCSI drives is another area where we are able to provide a solution for those customers who require storage capacities greater than the Epson Supplied options. When using a SCSI type hard disk drive, the hard disk controller usually is a part of the hard drive unit. The connection between the SCSI bus and the Equity's data bus is made by installing a host adaptor into the Equity computer and connecting the SCSI drive to the host adaptor. The Seagate ST-296N, 85Mb drive, used in a stand alone configuration in the current Equity Series computers has provided favorable results.

When using SCSI drives in a Novell network, the use of the Future Domain SCSI adaptor with high capacity SCSI drives such as CDC and Maxtor has also been very successful. Future Domain recommends using Version 1.4 of their device driver when installing Novell Netware Versions 2.1-2.15. When used with the TMC-830 (use ROM Vers. 4.0L) or the TMC-840 (use ROM Vers. 5.0C) host adapters, drive sizes of up to 800Mb (CDC 94181-702) can be accommodated.

EQUITY 386/25					
VER	PART #	DESC	TYPE	LOC	REASON
1.30	Y193802000	CTIG-BO1	27C256	U67	INITIAL RELEASE
1.30	Y193801000	CTIG-AO1	27C256	U68	
1.50	Y193802001	CTIG-BO2	27C256	U67	To allow remote boot from a DEPCA network adapter. To allow expanded use of IDE hard disk drives (ST-157A, Quantum, Maxtor, Rodime, Western Digital). To allow the installation of Netware versions 3.0 and 3.1. See ECN EQ386/25-001 (2/6/91)
1.50	Y193801001	CTIG-AO2	27C256	U68	
1.60	Y193590802	CTIG-B03	27C256	U67	Fixes problem with rapid keystrokes using the enhanced 10-key area of the keyboard. This problem may cause shift key lock and/or keyboard lockup. To allow the use of a SCSI HDD controller with the password function. Fixes problem that causes a "1782 Disk Controller Failure" error when two non-User Defined HDDs are installed. Fixes problems with DECNET PCSA v.3.01. SEE ECN No: EQ386/25-002 (4/3/92).
1.60	Y193590801	CTIG-A03	27C256	U68	
1.70	2010782	CTIG-B04	27C256	U67	Fixes problem that causes a "1782 Disk Controller Failure" error when two User Defined HDDs are installed. See ECN N0: EQ386/25-003 (2/5/93).
1.70	2010781	CTIG-A04	27C256	U68	