



GSMH-39DFFU

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# **Service Hints & Tips**

## Servers/PS/2 - 19990303 error, system partition boot failure

## **Symptom**

The 9585 system displays a I9990303 System Partition Boot Failure error message with OS/2 2.1 installed.

#### **Problem Isolation Aids**

OS/2 2.1 was installed without using the Model 9585 setup utility to copy the ABIOS files onto a newly created Model 9585 OS/2 2 install diskette.

A System Partition Boot Failure error (19990303) occurs the first time the System Partition is accessed.

Some time may have lapsed between the installation of OS/2 2.1 and the actual need to utilize the System Partition.

#### Fix

- 1. Backup the systems hardfile (All data)
- 2. Create a Model 85 OS/2 2.1 installation diskette by:
- a. Using another machine, create a backup copy of the OS/2 2.1 installation diskette. Label the diskette as the model 9585 OS/2 2.1 installation diskette.
- b. Using the Model 9585 reference diskette, copy the ABIOS.SYS file from the reference diskette to the installation diskette (created in step 2a)

## Note

When encountering an I9990303 error on a Server 85 and copying the ABIOS.SYS and \*.BIO files as identified above, be aware that there are two models of the 9585. Each model uses a unique reference diskette as identified below. Failure to use the correct diskette may result in TRAP 0002 or time out errors during the subsequent installation of OS/2.

- If you are installing OS/2 on a 9585-0Xx, use the ABIOS.SYS and the \*.BIO from the 1.11 reference diskette.
- If you are installing OS/2 on a 9585-0Kx or 9585-0Nx, use the ABIOS.SYS and the \*.BIO from the 1.32 reference diskette.

#### Note

If insufficient room exists on the backup copy of the Installation Diskette for the new \*.BIO files you may delete the existing (old) \*.BIO files from the backup Installation Diskette.

c. Install OS/2 2.1 using the newly created installation diskette. (This diskette should only be used on this system since some of the ABIOS files are system unique.

## **Warning**

Make sure that all data files have been backed up before performing a low level format. All data on the hard file will be lost.

- 3. Perform a low level format.
- 4. Install a system partition using "Restore system partition" from the reference diskette.
- 5. Install OS/2 2.1 using the unique installation diskette created in step 2 above.

6. Restore the backed up data files.

## **Technical Explanation of Problem**

The OS/2 2.1 installation procedure invokes a sequence of code paths that will calculate the hardfile space available to the user for partition(s); C drive, or C and D drives, etc. The ABIOS files are used if available. Otherwise, the OS/2 FDISK code invokes a device driver that miscalculates the hardfile space by one cylinder larger than it really is.

The 9585 system has a RAM loaded ABIOS architecture (FLASH) so the files are not available during the initial installation of OS/2 and the FDISK drive code path is invoked. This causes OS/2 to create a user partition (eg. C drive) which overlaps the part of the hardfile containing the System Partition. When the user attempts to access the System Partition the POST code does not know if the System Partition is valid since OS/2 is claiming this space. The System Partition is then marked invalid and the I9990303 error is generated.

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