

## PC-MOS 5.01 README File

This file contains additional information that was not included in the user documentation at the time of printing:

### UPDAT501.SYS DEVICE DRIVER

\* \* \* \* \*    IMPORTANT    \* \* \* \* \*

\* \* \* THIS DRIVER IS REQUIRED TO INCLUDE THE LATEST CHANGES TO PC-MOS \* \* \*

This device driver is used to add the latest changes to your PC-MOS system file. The driver MUST be loaded in your CONFIG.SYS file to ensure you are using all the latest changes and improvements.

The following statement should be in your CONFIG.SYS file:

DEVICE=d:\path\UPDAT501.SYS

where "d:" is the drive letter and "path" is the subdirectory that contains the UPDAT501.SYS file.

NOTE: Both the AutoInstall program (INSTALL) and the Auto Configuration Utility (ACU) have been modified to automatically include this driver in your CONFIG.SYS file.

### IMPROVEMENTS INCLUDED IN THIS RELEASE

The following improvements have been incorporated into PC-MOS 5.01:

1. PC-MOS 5.01 includes support for DOS large volumes (disk partitions of greater than 32MB made by DOS 5.X).
2. Improved AUTOINSTALL and HDSETUP programs.
3. Improved and easier to use IMPORT and EXPORT programs for backing up and restoring your data.
4. Improved \$SERIAL.SYS serial communications driver. Efficiency of serial communications has been improved, plus input and output FIFO support for 16550A UARTs has been added.
5. New SERINFO.COM utility added that provides information about the serial communication ports that are in use on your system.
6. Enhanced support for hard disks that require DMA buffering.
7. Improved overall system throughput by incorporating a "disk busy task switching" feature which allows other tasks on the system to receive their share of processing time when another task is reading or writing to disk.
8. Improved EMS driver that allows loading the EMS page frame outside of the normal FREEMEM area on certain systems.
9. Improved MOS ROUTE utility command that displays any printer redirection currently set and active on the system. Type MOS ROUTE and press ENTER.

## DOS LARGE VOLUME SUPPORT

PC-MOS 5.01 includes support for DOS large volumes (disk partitions of greater than 32MB made by DOS 5.X). This gives PC-MOS compatibility with the latest version of DOS in dual-boot MOS and DOS installations.

## IMPROVED AUTOINSTALL AND HDSETUP PROGRAMS

The AUTOINSTALL program that is used for automatic installation of PC-MOS on your system has been improved and expanded to handle some new installation situations. The HDSETUP program that is used to partition your hard disk has also been improved. It can now create DOS large volumes, has a new menuing system plus on-line help, and is easier to use.

**IMPORTANT:** The new program HDSETUP.EXE has replaced HDSETUP.COM. You should manually delete HDSETUP.COM if you are upgrading from a previous release. If you don't, the new program will not run since the .COM file will be called and run before the .EXE file.

## NEW IMPORT AND EXPORT PROGRAMS

Upgraded and improved IMPORT.EXE and EXPORT.EXE programs are included to replace the old IMPORT.COM and EXPORT.COM programs. The new programs are more flexible and easier to use. For an on-screen review of the new command line syntax enter IMPORT /? or EXPORT /? at the system prompt.

An easy to use Query Mode is also available by entering IMPORT /q or EXPORT /q. This is an interactive mode that asks users a series of questions about the operation they want to perform - and then runs the requested IMPORT or EXPORT operation without the need for entering any command line operands.

**IMPORTANT:** If you are upgrading from PC-MOS version 4.10 or earlier, your old IMPORT and EXPORT programs will not get overwritten during installation, since their file names have changed.

New programs EXPORT.EXE and IMPORT.EXE have replaced EXPORT.COM and IMPORT.COM. You should manually delete the files with the .COM extension! If you don't, the new programs will not run since the .COM files will be called and run before the .EXE files.

**WARNING:** Don't perform any backup operation with multiple tasks active on the system. Corruption of backup data is possible if files exported are currently open by another application. For safety, exit all applications and enter the REMTASK ALL command from the host partition (task 0) before running EXPORT or any other backup utility compatible with PC-MOS.

The EXPORT program now contains a new command line operand. It also contains corrections for appending an export to an existing EXPORT diskette set and for importing exported files that were larger than a single backup diskette.

### New /F Operand:

A new /f operand is available that selects an alternate behavior for the /s copy all subdirectories operand when specific wildcards are used, as follows:

```
EXPORT C:\*.* A: /S
```

The above command will export all files in the root and all files in all subdirectories.

```
EXPORT C:\SALES\*.* A: /S
```

The above command will export all files within C:\SALES (presuming that SALES is a directory rather than a file) and all files in all child directories.

```
EXPORT C:\SALES\M*.* A: /S
```

The above command will export all files within the C:\SALES directory that start with the letter "m". It will also find every subdirectory within C:\SALES whose name starts with an "m" and then export all files within those subdirectories and their child directories.

```
EXPORT C:\SALES\M*.* A: /S /F
```

The above command will export all files within the C:\SALES directory that start with the letter "m". It will also find every subdirectory within C:\SALES and then export only those files within those subdirectories and their child directories that start with the letter "m".

NOTE: The /f switch cannot be used without the /s switch. Also, the /f switch has no effect if exporting all files from all subdirectories using a \*.\* wildcard specification (the default) since there is not at least one character in the wildcard specification to use to search for matching files or directories. Therefore, all files in all subdirectories will be exported.

NOTE: When using specific wildcards (that include at least one character, e.g. B\*.\* ) with /S or /S/F, only the files that match the specified character(s) will be exported from the subdirectory that the export is started from. For example, EXPORT C:\B\*.\* A: /S will export only those files in the root directory of drive C that start with the letter B. The files exported from child directories behave as explained above.

#### /A APPEND Operand:

The EXPORT append operation has been corrected to properly identify the last diskette of an existing backup set. If an attempt is made to start an append operation with a diskette other than the last diskette of an existing backup set, an error message will be displayed. You will have to start the EXPORT append operation over again with the correct diskette in the drive.

The first diskette used in an append operation (the last diskette of the current backup set) will not be cleared of existing data, but appended to. Any subsequent diskettes used will be cleared of any existing data and overwritten with the new EXPORT data.

#### /D OPERAND, Specified Date:

The User Guide says that the /D operand selects files for export with dates that come after the specified date. That is not correct. Files with dates that match or come after the specified date will be selected for export.

#### EXPORT Files that Span Multiple Diskettes:

A problem has been reported in which an individual exported file that was larger than one backup diskette could sometimes not be properly restored with

the IMPORT program. This has been corrected in the new version of EXPORT.

#### IMPROVED \$SERIAL.SYS DRIVER

Communications speed through standard serial ports has been improved by making the \$SERIAL.SYS driver more efficient. Also, input and output FIFO support for 16550A UARTs has been added. This provides an additional increase in serial transmission rates. Two new operands (IF= and OF=) have been added to the end of the \$SERIAL.SYS command statement to provide this support, as follows:

```
DEVICE={d:\path\$SERIAL.SYS /AD=nnnn,IB=nnnnn,  
OB=nnnnn,HS={N,D,X,P,R},IN=n,IF=nn,OF=nn/...
```

where:

IF=nn is the Input FIFO buffer size in bytes. Defaults to 0 - disabled.  
(Can ONLY be used on serial ports using a 16550A UART. For such ports,  
set to 14.)

OF=nn is the Output FIFO buffer size in bytes. Defaults to 0 - disabled.  
(Can ONLY be used on serial ports using a 16550A UART. For such ports,  
set to 16.)

#### NEW SERINFO UTILITY PROGRAM

This program can be used to see what serial communication ports are in use on your system and what optional parameters are set for each port. To run the utility, enter the following command at the system prompt:

```
SERINFO
```

#### ENHANCED HARD DISK DMA BUFFERING SUPPORT

Hard disk DMA buffering support is provided with the PC-MOS MEMDEV= statement. This statement is used to set the correct memory management driver for the processor in your computer and also to set a DMA buffer size if required for your hard disk. (See the Configuration chapter of your User Guide for more information.)

#### DISK BUSY TASK SWITCHING

A "disk-busy task-switching" feature has been added to PC-MOS. This effectively makes disk access an interruptable task. This improves overall system throughput (the elapsed real time to complete all tasks) by allowing other tasks on the system to continue to receive their share of processing time when another task is reading or writing to disk. This feature is ON by default.

It is reasonable to expect that disk reads and writes will take longer with this feature on and other tasks active on the system since the other tasks get time slices, each of which must be completed before resuming an interrupted disk operation.

The MOSADM TMFACTOR command is very significant in this case. A larger TMFACTOR means shorter time slices, therefore shorter interruptions of disk operations, therefore faster disk I/O. So it is important to use a reasonably

DON'T USE 2 (MESSES UP CLOCK)

large TMFACTOR to maximize disk performance, but not so large as to cause system throughput to suffer. (The default TMFACTOR setting is 1. Values in the range of 1 to 20 should be best in most cases.) Keep in mind that disk performance and total system throughput are inversely proportional, so choose your settings to best suit your particular needs.

If it is not desired, this feature can be turned OFF by including the following statement in your CONFIG.SYS file:

DISKSW=N

This will return disk access to the non-interruptable state, i.e. all disk access will be completed before any other tasks receive their share of processing time.

### IMPROVED EMS DRIVER \*

The EMS driver in PC-MOS 5.01 allows you to place the 64K EMS page frame at A0000 to B0000 Hex under certain conditions. (This moves the EMS page frame out of the normal FREEMEM area providing a larger contiguous FREEMEM area, and therefore, possible larger tasks sizes.)

To use the A0000 to B0000 page frame for EMS, your system meet the following two conditions:

1. System video must be MONOCHROME, HERCULES or CGA. You can not have EGA or VGA and use this option.
2. You can not use the VTYPE F "fill" option. For example, if your system has a Hercules mono graphics video adapter you can only use VTYPE=5, not VTYPE=5F.

If your configuration meets the above conditions, and you locate the EMS page frame at address A0000 Hex, the following also applies:

1. You will be allowed to add a task whose task space goes above A0000 Hex (640K). If you do so, and then try to enter a MOSADM EMSLIMIT command in that task to add EMS memory to the task, you will get the following error message:

EMS Page address of A0000 conflicts with task space.  
Either reduce task size or change EMS Page Address.

If you get this error message, and you want to keep the EMS page frame at A0000, use the MOS RESIZE command to resize the task to the same size as task 0. Then re-enter the MOSADM EMSLIMIT command.

If you get this error message, and you don't want to reduce your task size, specify a valid address other than A0000 for the EMS page frame.

Under PC-MOS 5.01, the EMS driver will check the current FREEMEM setting and return an error if a conflict with the EMS page frame address and the FREEMEM area occurs.

### MOS ROUTE COMMAND DISPLAY

The MOS utility command program MOS.COM now contains a revised MOS ROUTE LPTn command option. Entering just MOS ROUTE at the system prompt, with no

operands, will display a list of any printer redirection presently set and active on the system.

#### ORIGINAL PC-MOS FILES NOW MUST BE INITIALIZED

PC-MOS version 5.01 original diskettes no longer include an EVALUATION Disk for use in deciding whether PC-MOS meets your needs. Instead, the SYSTEM Disk now contains the time-out evaluation files. You may use the SYSTEM Disk and AUXILIARY Disks to evaluate PC-MOS. The time-out files will stop running after 60 minutes. You may reboot as often as you like to start another 60 minute evaluation session.

Once you decide to keep PC-MOS open the sealed envelope to obtain the activation key code and instructions for converting your time-out evaluation files into full non-restricted program files.

#### AUTO-CONFIGURATION UTILITY

An Auto-Configuration Utility is included to assist you in building a CONFIG.SYS file (or modifying an existing CONFIG.SYS) to set up your system configuration. The ACU should be run after you finish running the Auto-Install program to install PC-MOS on your computer. There are instructions on how to run the ACU as you exit the Install program and in the Installation & Quick Start manual.

#### DOS 5.0 SETUP PROGRAM WARNING

If you ever use the MS-DOS 5.0 SETUP program to apply a DOS 5.0 upgrade to DOS on a dual-boot DOS/MOS system, you must see the section called "Correcting for the MS-DOS 5.0 SETUP Program" in your PC-MOS Installation Manual!

Since the MS-DOS 5.0 SETUP program does not fully "understand" the PC-MOS Secondary partition structure, it will incorrectly modify the master boot record partition table type code of the Secondary boot partition for PC-MOS. It will also change the boot status of the partition from bootable to NOT bootable, since DOS only allows one bootable partition! You therefore will no longer be able to boot your machine under PC-MOS.

WARNING: These incorrect partition entries made by DOS must be corrected before the affected partition can be used with PC-MOS. Any data written to the partition before making these corrections will probably be corrupted!

#### MOS DOSVER COMMAND & DOSVER= CONFIGURATION STATEMENT

Some applications require that they "see" a certain version of DOS in order to run properly.

The DOSVER= configuration statement and MOS DOSVER command are used to set the DOS version that PC-MOS reports to an application. Since you are actually running PC-MOS, you are fooling the application into thinking that it is running under a certain version of DOS. (This is similar in function to the DOS SETVER command.)

The DOS version may be set to: 3.0, 3.1, 3.2, 3.3, 3.31, 4.0, or 5.0.

The DOSVER= configuration statement is entered in your CONFIG.SYS file and has a global effect, i.e. it affects applications running in any task on the entire system.

For example, if you want to set a DOS version 3.3 version on your system, you would enter the following statement in your CONFIG.SYS file:

```
DOSVER=3.3
```

NOTE: If a device driver on your system requires a certain DOS version to be set, you must use the DOSVER= configuration statement to set it. A task-specific MOS DOSVER command will not properly set the version for a device driver.

The MOS DOSVER command is task specific and only affects the task in which the command is entered. For example, if an application requires a DOS version of 3.2, you should enter the following command in any task that will run that application:

```
MOS DOSVER 3.2
```

Entering a MOS DOSVER command in a task overrides any global setting made by a DOSVER= statement in your CONFIG.SYS file.

(This command is changed in PC-MOS 5.01 in that it now defaults to DOS 5.0! Under PC-MOS 4.10 the default was 3.2! Therefore, if you have any applications that worked properly under 4.10 and have a problem under 5.01, try setting your MOS DOSVER back to 3.2 or 3.3!)

\* WARNING: DO NOT USE DISK UTILITIES WITH A DOS VERSION SET! \*

If you set the DOSVER to a 3.X version and run a disk utility to undelete a file, defragment a disk, or other disk operation, you will probably lose or corrupt data on the disk! Only use such utilities with no MOS DOSVER set.

#### LASTDRIVE=N STATEMENT

This configuration statement sets the maximum number of drives that you can access. The default is one more than the number of logical drives that your computer actually has. (Remember, one physical hard disk might be partitioned into several logical drives!) For "N", enter a letter in the range from A to Z. For example, to allow your system to access seven logical drives, you would enter the following statement in your CONFIG.SYS file:

```
LASTDRIVE=G
```

Normally you don't need to worry about specifying a value. However, if your system is accessing network drives, you may need to increase the number of logical drives you can access by specifying a LASTDRIVE statement.

#### ESDI CONTROLLER COMPATIBILITY

The \$386.SYS memory management driver allows increased compatibility with ESDI hard disk controllers.

Normally, the BIOS on ESDI controllers uses a 1K area of RAM addresses just below 640K (A0000 hex). This can conflict with the memory addresses that MOS

assigns to task space and, if so, could cause the system to lock up when booting.

Therefore, during boot up, PC-MOS will automatically check to see if that 1K area of memory is being used. If so, PC-MOS will allow the ESDI BIOS to be relocated to use RAM addresses in a lower memory area (an area normally used for device drivers). This will keep the ESDI BIOS from conflicting with the RAM space used for tasks.

NOTE: To properly handle this process, the memory manager must reduce task space by 4K. Also, you will NOT be able to use the "F" option with your VTYPE statement to increase the available task size.

If you are positive that your controller is NOT using this 1K area, but another component is (particularly a "scratch RAM" setup option) you might be able to use the /b operand with the \$386.SYS driver to prevent this relocation from happening. If possible, this will recover your 4K of task space, and allow the use of the "F" option with VTYPE.

An example statement would be:

```
DEVICE=C:\PCMOS\$386.SYS /B
```

#### INCORRECT VIRUS REPORT BY SCAN

The anti-virus program SCAN by McAfee Associates incorrectly reports that the 7thSon virus has infected the PC-MOS file MSYS.COM. MSYS is the program that writes the MOS boot record on a disk. Because of the differences between MSYS and the DOS SYS command, SCAN thinks it detects something wrong with MSYS.COM and incorrectly reports that it has the 7thSon virus. We are working with McAfee Associates to resolve this situation.

#### MOSADM RETRY {TASK} LPTx ON/OFF COMMAND

Entering the MOSADM RETRY {task} LPTx ON command for a task will cause that task to continually retry sending a print job to the specified printer. (This is similar to the DOS MODE LPTn,P command.)

This is helpful should there be a problem with the printer device. If there is no paper in the printer, for example, the job will print once paper is added and the printer put back on-line. When printing directly from MOS this continuous retry on printer time-out errors is inherent. However, when printing from an application that uses int 17 to send a print job, you must use this command to enable continuous retry on printer time-out errors.

Entering the MOSADM RETRY {task} LPTx OFF command for the task will turn the continuous retry feature OFF. The default condition is OFF.

#### ESCAPE SEQUENCE CORRECTIONS

The section in the User Guide on "Escape Sequences for non-PC Type Terminals" is unclear in its explanation of "ESC F nn" used for sending shifted function key scan codes. The following chart shows the results more clearly:

Keys:	Sends scan code for:
ESC 1 - ESC 9	F1 - F9

ESC 0	F10
ESC F 1 0	not used
ESC F 1 1 - ESC F 1 9	SHIFT F1 - SHIFT F9
ESC F 2 0	SHIFT F10
ESC F 2 1 - ESC F 2 9	CTRL F1 - CTRL F9
ESC F 3 0	CTRL F10
ESC F 3 1 - ESC F 3 9	ALT F1 - ALT F9
ESC F 4 0	ALT F10

#### LANLINK 5X FILES REQUIRED FOR RUNNING PC-MOS REL 5.01

The following versions of LANLink 5X files are required for running under PC-MOS rel 5.01:

LAN.COM v2.1  
 SERVER.SYS v2.1  
 LANSERVE.COM v2.1 (see note)

If you have previous versions of these files you will need to upgrade your LANLink 5X software to run under PC-MOS rel 5.01.

NOTE: To work properly with PC-MOS 5.01, LANLink 5X and LANLink LapTop must have the following patches applied:

LL5M.PAT - This patch is REQUIRED for PC-MOS 5.01 and LANLink 5X. The patch is applied to LANSERVE.COM.

LL5MDEMO.PAT - This patch is REQUIRED for PC-MOS 5.01 and LANLink 5X. The patch is applied to LANSERVE.COM on the LANLink 5X DEMO Disk!

LL5XSAT.PAT - This patch is REQUIRED for PC-MOS 5.01 and LANLink 5X. The patch is applied to LANSAT.SYS.

LLLAP5M.PAT - This patch is REQUIRED for PC-MOS 5.01 and LANLink LapTop. The patch is applied to LANSERVE.COM.

LLLAPSAT.PAT - This patch is REQUIRED for PC-MOS 5.01 and LANLink LapTop. The patch is applied to LANSAT.SYS.

The patch files themselves are ASCII text files that contain both the patch and the instructions on how to apply the patch. Use the TYPE command to display the contents of the patch file on the screen or the COPY command to send it to the printer. Then follow the instructions to apply the patch.

#### EMULINK 3.1 PATCH & NEW DRIVER

The EmuLink terminal device driver ELTERM.SYS now contains a correction for printing at the terminal using the MOS ROUTE LPTn TO TERM command. (When

printing from an application that caused the screen to scroll during the print, extra characters would be sent to the printer.) Also, this driver makes sure that caps lock, num lock, and scroll lock work correctly at the EmuLink terminal. In order for this second correction to work properly, the patch E31\_P2.PAT must be manually applied to EmuLink 3.1. Instructions on how to apply the patch are in the patch file itself. Use the TYPE command to display the contents of the patch file on the screen.

#### EMULINK 4.0 REQUIREMENTS & NEW DRIVERS

The EmuLink terminal device drivers ELTERM.SYS and HGTERM.SYS now contain a correction for printing at the terminal using the MOS ROUTE LPTn TO TERM command. (When printing from an application that caused the screen to scroll during the print, extra characters would be sent to the printer.) Also, these drivers make sure that caps lock, num lock, and scroll lock work correctly at the EmuLink terminal.

The \$SERIAL.SYS, ELTERM.SYS, and HGTERM.SYS drivers provided with PC-MOS 5.01 are required for EMULINK 4.0.

#### IMPORTANT NOTE FOR NOVELL NETWARE INTERFACE USERS

You MUST have version 2.31 or above of PC-MOS GATEWAY for Novell's Netware to run properly under PC-MOS rel 5.01 and above.

If you have a previous version of PC-MOS GATEWAY you will need to upgrade to run under PC-MOS rel 5.01 and above. The current version of GATEWAY is 2.4.

#### DCA IRMA/2 USERS

Be sure to read the file IRMA.ZIP for information on using IRMA in the PC-MOS environment. This file is available for downloading from The Software Link bulletin board at (404) 263-8772.

#### FILTER.COM

This is a new TSR program that will tell the application that the file handle is remote, instead of local. This will enhance compatibility with applications such as FRAMEWORK III LAN and LOTUS 123 v2.2.

The program is run only once in each task that is running the affected application software.

Command format: FILTER drive(s) or FILTER OFF

For example: FILTER c,d,e,f

You must supply at least one drive letter to capture, but could supply multiple drives separated by a comma. Entering FILTER OFF removes FILTER from memory.

#### INTEL INBOARD PC/386 USERS

A new driver (MINBRDPC.SYS) and new speed control program (MISPEED.COM) are required for running under PC-MOS. These replace the driver and speed control program supplied by INTEL for the INBOARD PC/386. These programs, and

instructions for using them, are available for downloading from The Software Link bulletin board at (404) 263-8772 under the filename INBRDPC.ZIP.

#### MICROSOFT MOUSE.COM V7.00 USERS

Microsoft's MOUSE.COM v7.00 is as old version of their mouse driver that will not work properly with PC-MOS without first applying a patch to the driver.

The patch and instructions on how to apply it are available for downloading from The Software Link bulletin board at (404) 263-8772 under the filename MOUSE700.ZIP.

The latest version of Microsoft's MOUSE.COM tested with PC-MOS is v8.1. This version works properly without the patch.

**IMPORTANT:** The PC-MOS mouse driver \$MOUSE.SYS must be used in place of any mouse driver supplied with your mouse. The \$MOUSE.SYS driver only works with 100% MicroSoft-compatible mice. Not all mice are 100% MicroSoft-compatible.

#### CUSTOMIZING MOS HELP

Appendix C of the User Guide contains instructions for customizing the PC-MOS on-line help messages by modifying the HELP.SRC file. This is not normally necessary. However, if you want to do so, you can obtain the HELP.SRC and HELPGEN.EXE files from The Software Link Bulletin Board at (404) 263-8772. Or, if you want, you can build your own topic/help message file from scratch by creating your own HELP.SRC ascii text file, following the manual instructions on how to format and edit that file, and then run HELPGEN.EXE.

#### PATCHID.COM PROGRAM

Entering PATCHID and pressing <ENTER> at the system prompt will generate a screen report that tells you what patch level of the PC-MOS kernel (\$\$MOS.SYS) you are currently running. (The command must be entered at the prompt of the drive that contains your PC-MOS system files.)

The report will also tell you what patches, by number, have been applied to your PC-MOS kernel. This information will assist our Technical Support department in troubleshooting your installation.

#### NEW UNITED KINGDOM KEYBOARD DRIVERS

Two new keyboard drivers have been provided for use with United Kingdom DOS 3.X and DOS 4.X keyboards. The drivers are \$KBUK3.SYS and \$KBUK4.SYS respectively. These new drivers replace the old \$KBUK.SYS driver. Read the section on foreign keyboard drivers in your User Guide for information on using these drivers.

#### FOXPRO 2.0 COMPATIBILITY

FoxPro v2.0 requires version 3.3 of DOS to function properly. Therefore, the PC-MOS command MOS DOSVER 3.3 must be entered in any task that will run FoxPro. Also, a program called SFT.COM must be run BEFORE you try to install FOXPRO on your system. SFT.COM is a TSR program that allows FOXPRO's install program to "see" the setting it requires for FILES= so that it will function properly.

## ARNET SMARTPORT SERIAL PORT BOARD DRIVER

The device driver \$ARNET.SYS is provided for using the "Smartport" intelligent multiple serial port board by Arnet Corporation.

This driver presently supports only one Smartport board installed in a computer running PC-MOS. To date, only the "SmartPort-8" and "SmartPort Plus-16" boards have been tested.

PC-MOS version 4.10 or above is required. The memory management driver \$386.SYS on a 386-based or 486-based system is required for using the Smartport boards.

### HARDWARE - Board Switch Settings:

Switch S1 - select an I/O address that does not conflict with any other hardware components in your system, such as our VNA hardware.

Switch S2 - for proper operation with PC-MOS, you MUST select a memory location for the board that is ABOVE the 1 Megabyte boundary (100000H), i.e. make sure the left most digit of the six digit hex address is 1 or above. We suggest using an address above F00000H.

Switch 3 - set all switch positions to OFF - IRQ not used!

Switch 4 - set all switch positions to OFF - 64K address block, location set by switch S2.

### SOFTWARE - Driver Memory Requirements:

The device driver \$ARNET.SYS requires 8K of memory in the normal PC-MOS FREEMEM area from C0000 hex to F0000 hex. Load the driver in your CONFIG.SYS file with a DEVICE= statement, for example:

```
DEVICE= C:\PCMOS\$ARNET.SYS C8000
```

NOTE: Make sure you set your FREEMEM statement(s) to exclude the 8K used by the \$ARNET.SYS driver. In this example, the board would use from C8000 to CA000 hex. Therefore, your FREEMEM statement should NOT include those addresses.

IMPORTANT: There are four companion files that are required by the \$ARNET.SYS driver. They are: BOX.BIN, BOX2.BIN, PATCH.BIN and PATCH2.BIN. These files MUST reside in the same directory as the \$ARNET.SYS driver. This would normally be the same directory that the rest of your PC-MOS files are in.

### DISK MANAGER - BY ONTRACK COMPUTER SYSTEMS

The Installation and Quick Start manual states that if your hard drive has more than 1024 cylinders and sector translation is not supported by the drives BIOS, you should use Disk Manager to partition your hard disk.

Since PC-MOS 5.01 is compatible with DOS 5.0, you must use a version of Disk Manager that is compatible with DOS 5.0. According to OnTrack technical support, version 4.21 or above of Disk Manager (presently through versions 5.0 and 5.1) are DOS 5.0 compatible. OnTrack technical support also states that versions 4.0 to 4.20 can support DOS 5.0 disk partitioning structures if loaded

with the /4 parameter, e.g. type DM /4 and press Enter to load Disk Manager. This parameter tells Disk Manager to use DOS 4.0 and above partitioning rules.

#### MOS SYSTEM MONITOR ENHANCEMENT

The MOS System Monitor (MONITOR.COM) has been updated with a new /U option. This option is only available the first time you load the program during each session on your computer. Entering MONITOR /U will load the program and immediately display the main menu, as opposed to having to press CTRL - SPACE to bring up the menu.

#### REVISED \$386.SYS MEMORY MANAGEMENT DRIVER

The \$386.SYS memory management driver has been revised to compensate for a known problem in some of the early IBM 386SLC microprocessors used in some IBM PS/2 computers.

#### NEW UNTERM.SYS DRIVER

The UNTERM.SYS driver for Video Network Adapter Plus (VNA Plus) and Video Graphic Network Adapter Plus (VGNA Plus) hardware has been revised to fix a problem with printing through the parallel port on workstation Interface Units and random workstation lock-ups.