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Quadra/Centris 610 DOS Compatibility Card: Read Me (10/96)

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TOPIC -----

This is the readme file that shipped with the Centris 610 and Quadra 610 DOS Compatibility computers. These computers shipped with PC Setup version 1.0.

DISCUSSION -----

Using DOS and Window Applications With the DOS Compatibility Card for Macintosh

This document contains important information about using your DOS Compatibility Card that is not included in your user's guide.

Using Memory Management Utilities

If you use a memory management utility such as EMM386 or QEMM, you need to configure it to be compatible with your DOS Compatibility Card.

- If will be using EMM386 (included as part of DOS) and don't require expanded memory, set CONFIG.SYS to:

```
DEVICE=C:\DOS\EMM386.EXE NOEMS RAM=D000-EFFF
```

If you require expanded memory, set CONFIG.SYS to:

```
DEVICE=C:\DOS\EMM386.EXE RAM=D000-EFFF FRAME=D000
```

- If you use QEMM, it is recommended that you use the frame option (ST:F):

```
DEVICE=C:\QEMM\QEMM386.SYS RAM ST:F ARAM=B080-B7FF ARAM=C900-DFFF R:1
```

- If you choose to use the Stealth mapping option (ST:M), set CONFIG.SYS to:

```
DEVICE=C:\QEMM\QEMM386.SYS RAM ST:M X=C800-CFFF X=FC00-FCFF X=FE00-FFFF
```

ARAM=B080-B7FF ARAM=C900-DFFF R:2

For other memory management utilities, configure them so that the only areas in the BIOS that can be mapped to upper memory are from D000 through EFFF.

Make sure you verify that the HIMEM.SYS line in the CONFIG.SYS file has the switch to turn memory testing off. If the HIMEM.SYS line doesn't turn memory testing off, the ROM BIOS may become corrupted when the DOS Compatibility Card is configured for 2 MB of memory:

```
DEVICE=C:\DOS\HIMEM.SYS /TESTMEM:OFF
```

NOTE:

Apple does not recommend using automated memory configuration utilities with the DOS Compatibility Card because they can require more memory than management utilities you configure manually. They can also be incompatible with the DOS Compatibility Card.

Using the Serial Ports on the Macintosh

The maximum baud rate supported by the DOS Compatibility Card when a COM port is mapped to a Macintosh serial port is 19,200. If you're capturing serial output to a Macintosh file, there is no limit.

Due to the RS-232 implementation of the Macintosh, not all RS-232 signals are available. These signals are not available: Carrier Detect (CD), Data Set Ready (DSR), Request to Send (RTS), and Ring Indicator (RI). If your application or serial device requires these signals, it will not work.

NOTE:

See "Serial Port Pinout" later in this document for a list of the Macintosh and PC connectors.

The DOS Compatibility Card does not support Carrier Detect (CD). You must configure your communications applications so they do not use CD. Most communications applications can be set to respond to the CARRIER string sent back by most modems.

Using Video

- Correcting Video Synchronization (Video Synch)

Some application programs that write directly to the hardware (especially games) may cause the Apple 13", 14", and 16" monitors to lose video synch when you start the program. If this happens, call the software company to see if one of the following conditions exists:

1. There is a switch to force the application program to make BIOS calls.
2. There is an upgrade available with this feature.

These applications will run on a standard VGA, SVGA, or MultiSync monitor.

- Getting Color on Your VGA Monitor

Due to the way some programs check for color VGA, they may be installed in VGA monochrome. In these cases check the documentation that came with your software to see if there is a setup option to install standard VGA. If the setup option is available, install the software with the standard VGA option. Once a program is installed with standard VGA, it will always display in color.

If you are installing Windows, even though the SETUP program comes up in color, the express setup may install in VGA monochrome. To avoid this you can use the custom setup and verify the video is set to VGA in the configuration screen.

Another way to avoid installing in VGA monochrome is to use the INSTALL.BAT file located on the DOS Compatibility Card Installer (for the DOS Environment) disk. Follow these steps:

1. Run the INSTALL.BAT command, but choose not to install.

The Installer places WINSETUP.BAT and a hardware information file on your C:/ volume.

2. Use the WINSETUP.BAT file to install Windows.

This will force Windows to install in color. You can also use the Windows SETUP program to change the video at any time.

- Using the Video Drivers

Included with your DOS Compatibility Card are video drivers for Windows and third-party applications. These drivers allow you to run Windows with 256 colors at 640 by 480, or if you are using an Apple 16" or VGA display, 16 colors at 800 by 600. Follow these steps:

1. Insert the Display Driver Disk 1 disk in the floppy disk drive while the PC is in the foreground.

2. From DOS, set the current drive to A by typing:

A:

3. Run the setup program by typing:

SETUP

Follow the instructions on the screen to install the video drivers.

NOTE:

If you are using an Apple 16" monitor, DOS will always be displayed at 640 by 480 centered on your monitor.

Using the Apple Adjustable Keyboard

If you are using an Apple Adjustable Keyboard, you cannot use key combinations that combine keys from the main keyboard with function keys at the same time (such as shift-F1). For this reason, you cannot restart the DOS Compatibility Card using the Control, Alt, and Delete key combination. If you need to restart the DOS Compatibility Card, use the Reset button in the PC Setup control panel.

Using Backup Programs

To back up the drive files on your Macintosh, either make a copy of the files by duplicating them in the Finder, or use a Macintosh backup application program. Do not use PC backup programs. PC backup programs do not work because the floppy disk drive is controlled by the Macintosh.

Using MacShare

MacShare is a PC application program included with your DOS Compatibility Card software that allows the PC to view Macintosh folders and volumes as drive letters on the PC. MacShare allows as many shared drives as there are drive letters. To specify the number of drive letters, modify your CONFIG.SYS to include a LASTDRIVE statement:

```
LASTDRIVE=x
```

x must be a letter between E and Z because the PC reserves drives A through D for its floppy and hard disk drives. For example, if you use M as your LASTDRIVE value, you could have up to nine extra drives (using drives labeled E through M). The CD-ROM driver, if installed, will use one letter.

NOTE:

Each additional drive letter uses 100 additional bytes of PC memory.

Using PC Drives and Partitions

The PC Setup control panel allows you to use PC SCSI drives and partitions with the DOS Compatibility Card. If you use a PC drive or partition and you have a utility that mounts these devices on the Macintosh, be sure to unmount the drive or partition before starting the PC by dragging its icon to the Trash. If you don't unmount the drive or partition, you may lose data since both the Macintosh and the PC may write to the device at the same time.

NOTE:

If you are using Apple's Macintosh PC Exchange 2.0 to mount PC devices, the software alerts you if you try booting the PC while the device is mounted.

If you intend to mount your PC drive file, partition, or disk on the Macintosh using a utility such as Apple's Macintosh PC Exchange, do not use a PC compression program. Drives that are compressed cannot be mounted.

Using Floppy Disks and CD-ROM discs

When the PC is in the foreground, you cannot insert Macintosh floppy disks into the floppy disk drive. The PC ejects a Macintosh floppy disk if one is inserted.

Write-protected PC floppy disks can be accessed by both the PC and the Macintosh. Write-enabled floppy disks can be accessed only by the environment that was in the foreground when the floppy disk was inserted.

To eject a floppy disk while the PC is in the foreground press Command-E.

NOTE:

Using Command-E works only when the PC can access the floppy disk. Otherwise switch to the Macintosh and eject the floppy disk from the Macintosh.

CD-ROM discs can be accessed by both the Macintosh and PC (if the included PC software is installed). To eject a CD-ROM disc from the PC, press Command-Y. If the CD-ROM disc cannot be ejected (because a file is in use or the CD-ROM is being shared), the Macintosh beeps to notify you and will not eject the CD-ROM disc.

Printing

The recommended print driver to use with your DOS or Windows application when printing to a QuickDraw (non-PostScript) printer is the Epson LQ-2500.

If the top and bottom of your document gets clipped when you are printing from your PC, follow these steps:

1. Double-click the System Folder on your Macintosh and open the Extensions folder.
2. Double-click the PC Print Spooler.
3. Choose Preferences from the File Menu.
4. Click the button for "Gaps between pages (60 lines)" (under "When emulating an Epson printer").

You can also set notification and status options in this dialog box.

Caches

Your DOS Compatibility Card works best with the Macintosh computer's caches enabled. Follow these steps to enable the caches:

1. Choose Control Panels from the Apple menu.
2. Open the Cache Switch control panel.
3. Click the button for Faster (caches enabled).

4. Close the Cache Switch control panel.

Serial Port Pinout

To connect existing PC serial devices to your Macintosh, you need cables with the correct pinout. The following chart matches the Macintosh pin (Mac Mini DIN-8) with the corresponding PC pin (DB-25):

Begin_Table

Mac Signal	Mac Mini DIN-8	DB-25	RS-232 Name
HSK _o	1	20	DTR
HSK _i	2	5,8	CTS, DCD
TXD-	3	2	TXD
GND	4	7	GND
RXDA-	5	3	RXD
TXDA+	6	N/C	
GPI	7	N/C	
RXD+	8	7	GND

End_Table

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