

# Venturis FX and Celebris FX

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## Video Capture/MPEG Decoder Card Installation and Configuration

Part Number: ER-PCXGA-IA. B01

**Digital Equipment Corporation**

**December 1996**

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*Venturis FX and Celebris FX Video Capture/MPEG Decoder Card Installation and Configuration Guide*

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# Introduction

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Congratulations on your purchase of the Video Capture/MPEG Decoder card for your Venturis FX or Celebris FX system. Your video capture card provides you with enhanced video and screen capture capability for either Windows 95 or Windows 3.x.



**NOTE:** The drivers only support Windows 95, Windows 3.x, and Windows for Workgroups. You cannot use this Video Capture/MPEG decoder card on a Windows NT Workstation system.

## Features

This product contains hardware and software which offer the following capabilities:

### Video

- Support for both NTSC or PAL on either composite video or S-video inputs
- Live video display in a resizable window
- Real-time video capture at 8 bit (4:2:2 YUV) resolution
- Compatible with S3 Trio64V+ video accelerator

### Video Capture/MPEG Decoder Card

- MPEG-1 compatible decoder in hardware for minimal CPU utilization, even on low end systems
- Full screen 30 frames/sec decoding and playback
- Synchronized audio and video playback
- Audio decoding supported at 32, 44.1, and 48 kHz rates (CD quality)
- Also supports Video CD movie formats

## Software

- Live video display at various formats
- Captured video file formats at 8, 16, 24 bits per pixel
- Capture full motion video or individual frames
- Image editor for still image editing
- Video editor to assemble multitrack audio and video clips into a complete multimedia presentation, including selectable effects, transitions, merging, and overlays.
- Drivers which enable Microsoft Media Player to support MPEG-1, Video CD movies, AutoDesk Animator files, as well as live video display from any NTSC or PAL video source. Does not support CD-I movies.

## Kit Contents

The Video Capture/MPEG Decoder card kit contains the following:

Item	Part Number
One Video Capture/MPEG Decoder card	54-24514-01
One audio/video connector card	54-24538-03
One connecting cable	17-04371-01
One Video Capture/MPEG Decoder Card Installation and Configuration Guide	ER-PCXGA-IA
Two diskettes containing S3 MPEG/Video Capture drivers (one each for Windows 95 and Windows 3.x)	QC-053AA-HC
One MediaStudio software package (user guide and CD)	QC-052AA-HC

## Hardware Installation

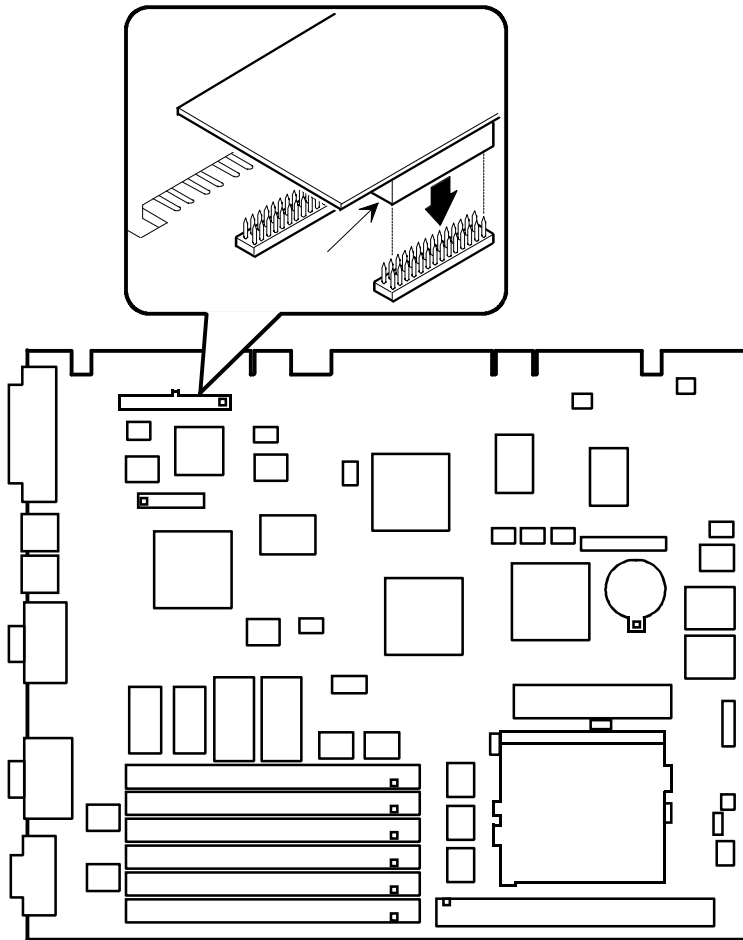
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Follow these steps to install the MPEG Daughter Card:

1. Turn off your computer and monitor.
2. Disconnect external devices, ac power, and monitor power.
3. Remove outside cover.
4. Remove the main logic board (see your *System Reference*).
5. Install MPEG daughter card as shown in Figure 1.



**CAUTION:** Make sure pin 1 on MPEG daughter card is correctly aligned with location on socket (A, Figure 1). Incorrect installation can cause faulty computer operation.



**Figure 1. MPEG Daughter Card Installation**

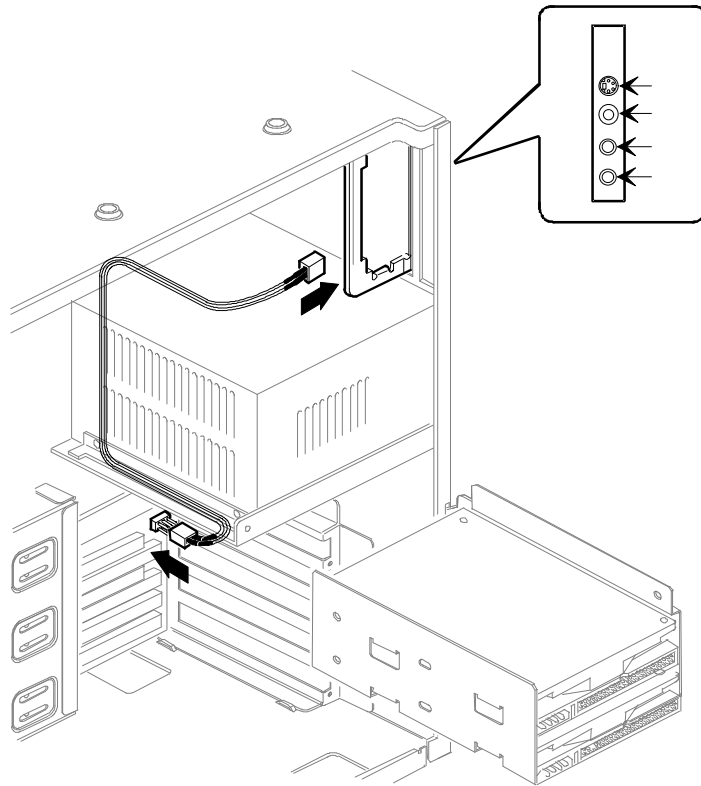
6. Replace the existing audio card with the audio/video connector card included in this package. (See your *System Reference*).
7. Connect the video cable to the Video In/Out connector on the audio/video connector card and to the Video In connector on the riser card as shown in Figure 2.



**NOTE:** The connectors Speaker Out and Audio In (C and D in the figure) are only functional if your computer has audio capabilities.

8. Replace the main logic board (see your *System Reference*).
9. Replace outside cover.
10. Connect external devices and restore power.





**Figure 2. Connecting the Audio/Video Connector Card**

Figure Legend	Connector
A	SVGA Video IN connector (not available on all models)
B	Composite video IN (not available on all models)
C	Speak out (not available on all models)
D	Audio IN (not available on all models)

## Software Installation

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After installing the Video Capture/MPEG card, it is necessary to adjust a BIOS setting and install software which will enable you to take advantage of the video capture and MPEG capabilities. When installation is complete, live video may be played through Microsoft Media Player or any other application which supports the device driver. Video can be played back from any video source (VCR, laser disc, TV, etc.) supported by your hardware.

Included in the contents of this kit are two S3 MPEG/Video Capture Driver diskettes which contain the necessary drivers. They are labeled for Windows 95 or Windows 3.x. The correct disk for you depends on which version of Windows is installed on your PC. Choose the appropriate disk and

- if you are a Windows 95 user, please follow the instructions below to adjust the BIOS settings and install the necessary drivers.
- if you are a Windows 3.x or Windows for Workgroups user, follow the BIOS setting adjustment steps below, then skip ahead and follow the driver installation instructions as listed for those operating systems.



**NOTE:** You must restart Windows after installing these drivers in order for the updates to take effect.

### BIOS Setting Adjustment

1. Reboot the PC.
2. During the initial power up, press the **F2** key to enter Setup.
3. Select the **Advanced** menu choice.
4. From the Advanced screen, select **Advanced Chipset Control**.
5. Select **Onboard VGA IRQ** and set it to **Enabled**.

6. Exit the BIOS Setup and save the changes.
7. Reboot your PC.

## Windows 95 Driver Installation Instructions



**NOTE:** Your system may already have the S3 Trio64v+ VGA driver installed. If so, skip Step 1 and begin with Step 2.

### STEP 1. Setup the Windows 95 S3 Trio64v+ video driver

1. In Windows 95, click **Start**.
2. From the Settings, Control Panel display, double-click on the **Display** icon.
3. Choose the **Settings** tab.
4. Click on **Change Display Type...**
5. Under Adapter Type click **Change**.
6. Click on **Have Disk**.
7. Insert the Windows 95 disk containing the video display drivers into the floppy diskette drive and click **OK**.
8. Select **S3.INF** and click **OK**.
9. Select the **S3 Inc. Trio64V+ PCI** driver from the displayed list and click **OK**. If a message stating that one or more driver files is older than the files on the system respond **Yes** to overwrite the files.
10. Click on the **Close** button.

11. Select the appropriate resolution using the Desktop Area and Color Palette options.
12. Click on **Apply** to apply any changes to your system setup.
13. The System Settings Change dialog will appear. Choose **Yes** to restart your PC.
14. The Windows 95 Trio64V+ driver installation is now complete.

## **STEP 2. Install the Windows 95Direct Draw driver**

1. Insert the S3 MPEG/Video Capture Drivers (Win95) diskette in the diskette drive (assumed to be A:\ for the remaining steps).
2. From the Windows 95 Start menu, choose **Run**.
3. Type **A:\DDRAW\SETUP.EXE** in the Open file box and click **OK**.
4. Follow the on-screen instructions to complete the installation.

## **STEP 3. Install the Windows 95Live Video driver**

1. Insert the S3 MPEG/Video Capture Drivers (Win95) diskette in the diskette drive (assumed to be A:\ for the remaining steps).
2. From the Windows 95 Start menu, choose **Run**.
3. Type **A:\CAPTURE\SETUP.EXE** in the Open file box and click **OK**.
4. An initializing message appears, followed by the S3 Live Video Welcome dialog. Click **Continue** to install the files in the default directory (C:\S3MMEDIA). Otherwise, specify another directory and then click **Continue**.
5. The installation will proceed and the S3 Live Video Setup Completed dialog will appear. Select from two options:

- Click the **Restart Windows** button to complete the installation and initialize Windows settings for the driver.
- Click **Exit** to exit the installation. Windows will not restart and drivers won't be fully installed until the next time you restart Windows.



**NOTE:** Choose Exit if you wish to install additional drivers before restarting Windows. All newly installed software will then take effect on the next reboot.

#### **STEP 4. Install the Windows 95MPEG device driver**

1. Insert the S3 MPEG/Video Capture Drivers (Win95) diskette in the diskette drive (assumed to be A:\ for the remaining steps).
2. From the Windows 95 Start menu, choose **Run**.
3. Type **A:\MPEG\SETUP** in the Open file box and click **OK**.
4. The Scenic/MX2 Setup Welcome dialog appears. Click **Continue**.
5. The installation will proceed and the once it is completed, you may select from two options:
  - Select **Yes** to restart Windows to complete the installation and initialize Windows settings for the driver.
  - Select **No** to exit the installation. Windows will not restart and the drivers won't be fully installed until the next time you restart Windows.
6. Click the **Finish** button.



**NOTE:** Choose No if you wish to install additional drivers before restarting Windows. All newly installed software will then take effect on the next reboot.

## **STEP 5. Driver Configuration from within Microsoft Media Player**

When displaying Live Video via Microsoft Media Player, you can adjust the viewing characteristics of the video via the Driver Configuration dialog box.

1. Click on the Media Player icon to launch the application.
2. From the Device menu in Media Player, choose **S3 Live Video**.
3. From the Device menu, choose **Properties** to display the Driver Configuration dialog.
4. Choose your desired configuration for Hue, Saturation, Contrast and Brightness.
  - Move the slider bar to the left or right as desired. The selection appears as a numeric value to the right of each slider bar.
  - To reset Hue, Saturation, Contrast and Brightness to the driver defaults, choose the Default button.
5. Choose the appropriate Digitizer Input Source to match your video source cable hook-up type:
  - Choose Composite Video 1 or Composite Video 2 if your input is cabled to an RCA connector **OR**
  - Choose S-Video if your input is cabled to an S-Video connector.
6. Choose the appropriate Video Format to match your video source format type.
  - If selecting broadcast video, choose NTSC for broadcast video in the United States.
  - If your source is other than broadcast video, refer to your owner's manual for the video format of your laserdisk player, VCR, video camera or other source.

7. Exit the Driver Configuration dialog by clicking **OK** to accept the options you have changed, or by clicking **Cancel** to discard the new settings and return to previous settings.
8. The S3 Live Video device driver configuration is now complete.

## Windows 3.x and Windows for Workgroups Driver Installation Instructions



**NOTE:** Your system may already have the S3 Trio64v+ VGA driver installed. If so, skip Step 1 and begin with Step 2.

### STEP 1. Setup the Windows 3.x S3 Trio64v+ video driver

1. Exit from Windows.
2. At the DOS prompt, change the current directory to your windows directory (for example, **CD\WINDOWS**).
3. Type **SETUP**. The current Windows configuration will be displayed.
4. Use the arrow keys to highlight the **Display** entry and press ENTER. Available display adapters will be listed on the screen.
5. Use the arrow keys to highlight **Other (Requires disk provided by a hardware manufacturer)** and press ENTER.
6. Insert the Windows 3.x disk containing the video display drivers into the floppy diskette drive.
7. Press ENTER (or first enter another diskette drive letter).

8. Select the screen resolution and press ENTER. Files will be copied from the driver installation diskette into the Windows directory on the hard disk. (A message may be displayed asking for a subdirectory location. If this occurs, enter the diskette drive letter.) When the installation is complete, the DOS prompt returns.
9. Start Windows.
10. The Trio64V+ driver installation for Windows 3.x and Windows for Workgroups is now complete.

## STEP 2. Install Microsoft Video for Windows

Microsoft Video for Windows is necessary for viewing .AVI video files. The MediaStudio CD includes Microsoft Video for Windows and can be easily installed by following these steps:

1. Insert the MediaStudio CD in the CD drive.
2. From File Manager in the Windows Program Manager, choose **Run**.
3. Type **E:\INSTALL.EXE** (assuming your CD drive is drive E:, otherwise substitute the correct drive letter) in the Open file box and click **OK**.
4. An initializing message appears, followed by the MediaStudio Welcome dialog. Click **Continue** to install the files in the default directory (C:\MS2VE). Otherwise, specify another directory and then click **Continue**.
5. The installation will proceed. When the installation prompts you whether or not to install Microsoft Video for Windows, click **OK**. The Microsoft Video for Windows installation will then proceed.
6. When the Microsoft Video for Windows installation is complete, click the **Restart Now** button to complete the installation and initialize Windows settings.



### STEP 3. Install the Windows 3.xLive Video driver

1. Insert the S3 MPEG/Video Capture Drivers (Win 3.x) diskette in the diskette drive (assumed to be A:\ for the remaining steps).
2. From File Manager in the Windows Program Manager, choose **Run**.
3. Type **A:\CAPTURE\SETUP.EXE** in the Open file box and click **OK**.
4. An initializing message appears, followed by the S3 Live Video Welcome dialog. Click **Continue** to install the files in the default directory (C:\S3MMEDIA). Otherwise, specify another directory and then click **Continue**.
5. The installation will proceed and the S3 Live Video Setup Completed dialog will appear. Select from two options:
  - Click the **Restart Windows** button to complete the installation and initialize Windows settings for the driver.
  - Click **Exit** to exit the installation. Windows will not restart and drivers won't be fully installed until the next time you restart Windows.



**NOTE:** Choose Exit if you wish to install additional drivers before restarting Windows. All newly installed software will then take effect on the next reboot.

### STEP 4. Install the Windows 3.xMPEG device driver

1. Insert the S3 MPEG/Video Capture Drivers (Win 3.x) diskette in the diskette drive (assumed to be A:\ for the remaining steps).
2. From the File menu in the Windows Program Manager, choose **Run**.
3. Type **A:\MPEG\SETUP** in the Open file box and click **OK**.
4. The Scenic/MX2 Setup Welcome dialog appears. Click **Continue**.
5. The installation will proceed and once it is completed, you may select from two options:
  - Select **Yes** to restart Windows to complete the installation and initialize Windows settings for the driver.

- Select **No** to exit the installation. Windows will not restart and the drivers won't be fully installed until the next time you restart Windows.



**NOTE:** Choose No if you wish to install additional drivers before restarting Windows. All newly installed software will then take effect on the next reboot.

## STEP 5. Driver Configuration from within Microsoft Media Player

When displaying Live Video via the Microsoft Media Player application, you can adjust the viewing characteristics of the video via the Driver Configuration dialog box. Follow the instructions below:

1. Click on the Media Player icon to launch the application.
2. From the Device menu in Media Player, choose **S3 Live Video**.
3. From the Device menu, choose **Properties** to display the Driver Configuration dialog.
4. Choose your desired configuration for Hue, Saturation, Contrast and Brightness.
  - Move the slider bar to the left or right as desired. The selection appears as a numeric value to the right of each slider bar.
  - To reset Hue, Saturation, Contrast and Brightness to the driver defaults, choose the Default button.
5. Choose the appropriate Digitizer Input Source to match your video source cable hook-up type:
  - Choose Composite Video 1 or Composite Video 2 if your input is cabled to a RCA connector **OR**
  - Choose S-Video if your input is cabled to an S-Video connector.
6. Choose the appropriate Video Format to match your video source format type.

- If selecting broadcast video, choose NTSC for broadcast video in the United States.
  - If your source is other than broadcast video, refer to your owner's manual for the video format of your laserdisk player, VCR, video camera or other source.
7. Exit the Driver Configuration dialog by clicking **OK** to accept the options you have changed, or by clicking **Cancel** to discard the new settings and return to previous settings.
  8. The S3 Live Video device driver configuration is now complete.

## Supported Modes

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When using Windows 95, the following video modes are supported when using Scenic/MX2 with an S3 multimedia accelerator. These modes are also supported for Live Video Overlay via the Streams Processor with an S3 video accelerator.

<b>Graphics Resolution</b>	<b>Colors</b>	<b>Video Memory Required (MB)</b>
640x480	256	1
640x480	64K	1
640x480	16.7M	2
800x600	256	1
800x600	64K	2
1024x768	256	1
1024x768	64K	2

When using Windows 3.x, the following video modes are supported when using Scenic/MX2 with an S3 multimedia accelerator. These modes are also supported for Live Video Overlay via the Streams Processor with an S3 video accelerator.

<b>Graphics Resolution</b>	<b>Colors</b>	<b>Video Memory Required (MB)</b>
640x480	256	1
640x480	32K	1
640x480	64K	1
640x480	16.7M	2
800x600	256	1
800x600	32K	2
800x600	64K	2
1024x768	256	1
1024x768	32K	2
1024x768	64K	2

## **Additional Information**

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For the latest information on the Video Capture/MPEG Decoder card, please refer to the README.TXT files located on the driver diskettes.

Please review these files for troubleshooting information and notes regarding limitations of the Video Capture/MPEG Decoder card.