

P/N: MDO5000
06225

Version 2.2
MANUAL
MEGAMOTION®



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**1.0 WELCOME TO
MEGAMOTION**

USING THIS MANUAL

This manual contains all the information you should need to install the different models of MegaMotion and the ASL Lightning II SVGA card that came with your kit (see Section 3). It also shows you how to install the MegaMotion Driver and Utilities (see Section 4). If your kit came with other ASL products, each product will have a manual included with it.

WELCOME TO MEGAMOTION

2. Carefully lower the MegaMotion board into the expansion slot until it just touches the connector. Gently press down on the board until it seats into place.

Make sure that the board seats properly by verifying that the video input/output connectors J5 and J6, and the VGA out connector J1 on the board align properly at the back of the computer (see Figure 6).

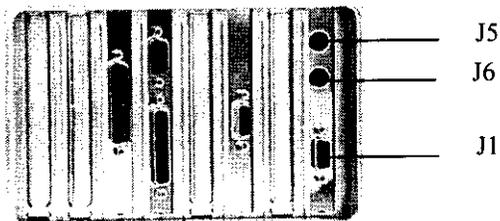


Figure 6. Aligning MegaMotion Board

3. Secure the board's bracket to the top of the chassis using the screw you removed.
4. Connect the monitor cable to the VGA out connector J1 (see Figure 6) on the MegaMotion board.
5. Reconnect all cables and verify proper internal cable connections.
6. Power on. Verify that your PC goes through the boot process correctly. If your PC does not boot up correctly, review all instructions in Part A. If you are still experiencing a problem, call Alpha Systems Lab's Technical Support at (714) 252-9200. Leave your PC open, in case Technical Support directs you to reconfigure your hardware.
7. When all questions are resolved, you can cover your PC.
8. Go to Part F (pg. 3-21) for information on connecting your video devices to the MegaMotion board.

You only need to select VGA driver for installation and setup. Once installation of both hardware and software (see Section 4) is complete, you can reselect any Windows display driver you would normally use (see Appendix C for additional information on MegaMotion SVGA driver).

In the Windows Main group, select the **Windows Setup** icon,



If the **VGA** driver is shown in the Display line (see Figure 14), exit by pressing ALT-F4 and go on to the next section below.

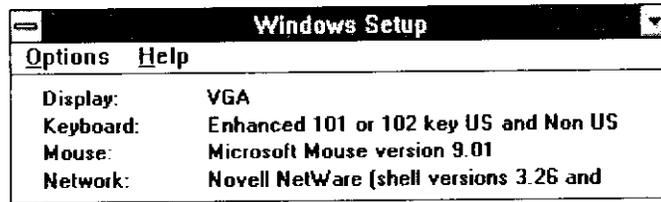


Figure 14. Selecting the VGA Driver

If a video driver other than the standard VGA driver is shown, click on **Options** in the Windows menu bar, then select **Change System Settings** in the drop-down list. In the **Display** row, scroll to **VGA** and press ENTER. Follow all additional instructions for rebooting and restarting Windows.



Installing the hardware with power ON will damage the boards and your computer.

INSTALLING MEGAMOTION WITH YOUR SVGA CARD

1. Turn your computer off.
2. Remove the PC cover. Check your owner's manual for instructions on how to remove the cover.
3. Select an empty 16-bit expansion slot and remove the cover for the slot. Save the screw, since you will use it later to secure the MegaMotion board.
4. Carefully lower the MegaMotion board into the expansion slot until it just touches the connector. Gently press down on the board until it seats into place.

PART F. CONNECTING VIDEO DEVICES TO MEGAMOTION

MegaMotion has one standard S-Video input (J5) and is available with one *optional* S-Video output (J6) (see Figure 23a, pg. 3-22).



If the MegaMotion model you have does not have the optional video-out feature J6, disregard the video-output-connection instructions. This model is then shipped with only one video cable (ASL P/N CBL5000B).

MegaMotion includes two video cables (ASL P/N CBL5000B) to connect your input and output devices. Each cable has an S-Video connector (4-pin DIN) and two male RCA connectors, black and yellow (see Figure 22).



Figure 22. Video Cable (ASL P/N CBL5000B)

If your MegaMotion board has the video-out feature J6, connect one cable's S-Video connector to J5 on the MegaMotion board, and the other cable's S-Video connector to J6 on the MegaMotion board (see Figure 23b, pg. 3-22). J5 is the input from your VCR or camera, and J6 is the output to your VCR or television.

If your video device has dual RCA connectors for Y/C signals (Y=Luminescence; C=Chroma), connect the yellow RCA connector to the Y signal and the black to the C signal. They are usually color coordinated.

INSTALLING HARDWARE

4.0 INSTALLING & CONFIGURING MEGAMOTION SOFTWARE

Exit Setup: If you click on Exit Setup or something goes wrong before completing the setup program, the following message will appear.

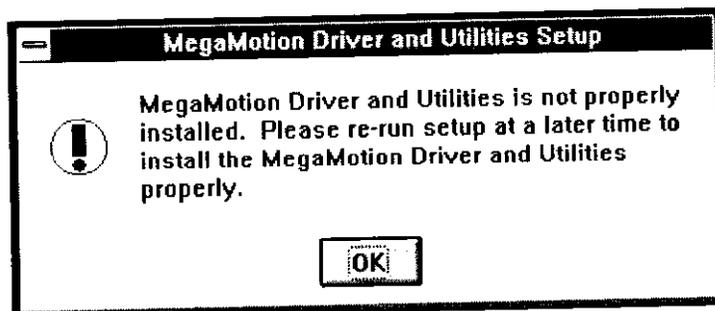


Figure 34. Incomplete Installation Message

Press OK, and it will take you to the Windows Program Manager. Restart the setup and installation program by choosing Run again from the File menu in Program Manager (See page 4-3, step #3).

When everything runs smoothly, you will get the following message.

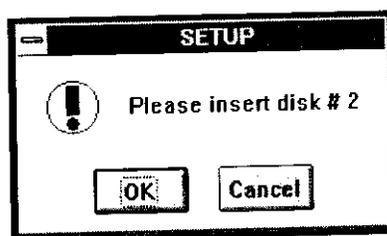


Figure 35. Insert Diskette #2 Prompt

Insert the driver diskette #2 and select OK to continue the installation.

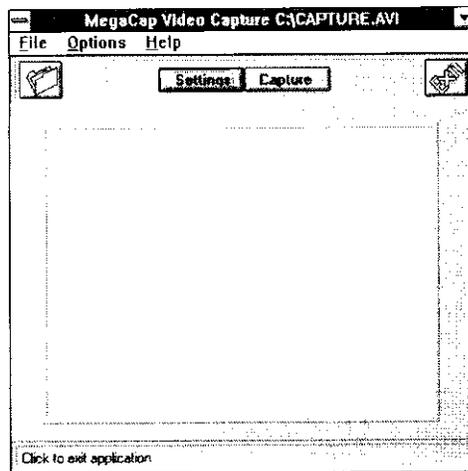


Figure 41. MegaCap Dialog Box

2. Select "Allocate File Size" from the File menu.

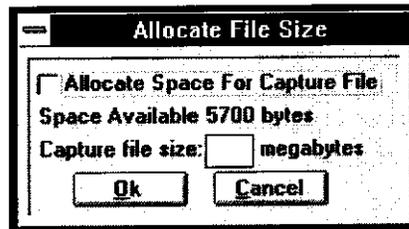


Figure 42. Allocate File Size Dialog Box

3. Assign the size you need. If you do not allocate a size sufficient for your capture file, the program may crash during the capture. The Space Available shown in the dialog box is the space remaining on the hard drive and is the maximum size for the capture file.
4. Select OK to return to the main MegaCap dialog box.

③ Automatic Gain Control (AGC)

Select AGC to enable automatic adjustment of the brightness and contrast of the input signal. Automatic Gain Control is enabled by default.

④ Chroma AGC

Select Chroma to enable automatic adjustment of the color of the input signal. Chroma AGC is enabled by default.

⑤ Power Down

This is a toggle switch that disables the input video processor. When you select Power Down, the Overlay Window will turn blank.

⑥ Generate Color Bars

This is also a toggle switch. When you select this, color bars will be displayed in the overlay window. Select again to return to Video.

f Video Output

The Video Output Options dialog box provides the controls for the video-out processor. This allows you to specify the way data will be written from the frame buffer. *This dialog box will not function if you do not have the video-out feature on your MegaMotion board.*

Select Video Output to change the signal going to an output device such as a television monitor or a video recorder.

① S-Video

S-Video should be selected for proper video on an S-Video output device.

② Black Burst Video

Black Burst Video should be selected when you wish to blank the video to the output device. Black Burst Video still provides all video sync signals to the video device.

NOTE

The audio out of the recording source (e.g., microphone) must be connected to the audio in of the sound card.

⑩ OK

If you select the OK button in the MegaCap Setting dialog box, the following message will appear.

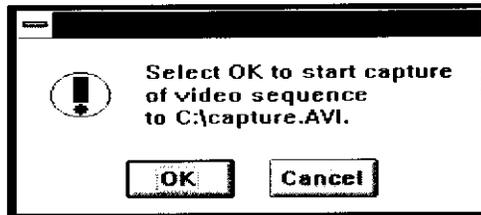


Figure 54. Capturing Video File to C:\CAPTURE.AVI

B.2 CAPTURE

Now you are ready to capture. If you are sure of your settings, you can press Capture from the MegaCap dialog box. Make sure that you have set a time limit for the capture. But if you are unsure and need to verify your settings, you can check your settings again and press OK from the MegaCap Settings dialog box when you are ready to capture.

Either way will capture your file to the default Capture.AVI file on C: drive (see Figure 54), unless you have changed the name of the capture file.

If you have a second drive, capture the AVI files to the drive that does not contain Windows so you can obtain the best capture and playback quality. Open the File menu and select Set Capture File to capture video to the second drive.

8. Click on  to play back the marked frames.

To save the playback sequence you have chosen, go to the File menu in MegaPlay, select Open*.mrk then Save*.mrk.

Use the second alternative to select a block of frames on the fly.

NOTE

Slow down the playback speed before you use this alternative.

1. Open the video file you want to mark, unless it is already open in MegaCap.
2. Pull down the Selection menu, and choose a Mark #.
3. Click on .
4. Click on  (the large forward arrow) to play.
5. Select the frame where you want to begin the playback by clicking on , the Markin icon.
6. Click on , the Markout icon, to mark the last frame.
7. Click on  to stop the playback.
8. Click on  to playback the marked frames.

To save the playback sequence you have chosen, go to the File menu in MegaPlay, select Open*.mrk then Save*.mrk.

6.0 TIPS

The most common cause of MegaMotion not working in your system is an IRQ conflict. If you encounter a problem, review the following information and the Interrupt Request Selection (pg. 2-5) prior to calling Technical Support.

SYSTEM INTERRUPTS

The following table of system interrupts is provided to assist you with the configuration and installation of the MegaMotion board.

Table 2. System Interrupts

IRQ	Use
0	Timer
1	Keyboard
2	Open (Same as IRQ 9)
3	COM2 (COM4) (FAX/Modem)
4	COM1 (COM3) (Mouse)
5	Open
6	Floppy Controller
7	LPT 1
8	Real Time Clock
9	Open (Same as IRQ 2)
10	Open (MegaMotion-Z)
11	Open
12	Open
13	Math Co-processor
14	Hard Disk Controller
15	Open (MegaMotion)

APPENDIX A. CONNECTOR PIN-OUTS

This section provides detailed pin-out information for the connectors used on MegaMotion models. The Z-bus information is not provided (refer to Toshiba owner's guide for information).

VGA CONNECTOR

Figure 69 shows the industry-standard 15-pin D-sub high density VGA connector J1 on the MegaMotion board. The pin-out for this connector is as follows:

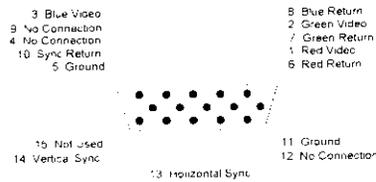
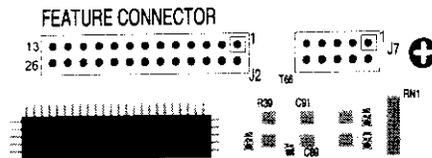


Figure 69. VGA Connector Layout

FEATURE CONNECTOR

Figure 70 and Table 3 (page A-2) list the pin designations of the 26-pin feature connector J2 on the MegaMotion board. The pin-outs are the same for the Lightning II SVGA card.





Do not start Windows until you have installed the VGA driver.

6. You will see the list of drivers and their associated resolutions, such as:

GD5426/28 v1.41, 1024x768x16
 GD5426/28 v1.41, 1024x768x256
 GD5426/28 v1.41, 640x480x16
 GD5426/28 v1.41, 640x480x256
 GD5426/28 v1.41, 800x600x16
 GD5426/28 v1.41, 800x600x256

7. Highlight the desired choice by moving the cursor to the correct display driver, and then press ENTER.



We recommend that you choose the 640x480x256 driver unless you are familiar with your monitor's capabilities.

CHANGING THE WINDOWS DISPLAY

To change the Windows 3.1 display drivers from within Windows, proceed as follows:

From the Main window of the Program Manager, run the Windows Setup program.

Select Options

Change Systems Settings

Display

You will see a list of the available drivers and their associated resolutions, such as:

GD5426/28 v1.41, 1024x768x16
 GD5426/28 v1.41, 1024x768x256
 GD5426/28 v1.41, 640x480x16
 GD5426/28 v1.41, 640x480x256
 GD5426/28 v1.41, 800x600x16
 GD5426/28 v1.41, 800x600x256

Highlight the driver by moving the cursor to the desired display driver, then choose the **OK** button.

APPENDIX D.
JPEG INFORMATION

APPENDIX F.
COMPATIBLE MOTHERBOARDS & SYSTEMS

APPENDIX G. GLOSSARY OF TERMS

AGC	Automatic Gain Control. When enabled, the adjustment of the brightness and contrast of the video is done automatically.
AVI	Audio Video Interleave. Abbreviation for Microsoft's file format for digital video.
Black Burst Video	Black Burst Video will blank the video to the output device. Black burst video still provides all video sync signals to the video device. Often used to provide a black screen at the beginning of a tape.
C	The analog chroma input and output video signal. The C component of Y/C (S-video) video signal. See Chroma.
Chroma (chrominance)	The color components of video, such as hue and saturation. A black-and-white image will have chrominance values of zero.
Chroma AGC	When enabled, the color of the video image will be automatically adjusted.
CODEC	Abbreviation for COmpressor/DECompressor.
Color Bars	A test pattern composed of eight rectangles of different colors: white, yellow, cyan, green, magenta, red, blue, and black.
Color Depth	The number of bits that contain color information for each pixel. The most common are 1-bit, which has 2 colors, 8-bit, which has 256 colors, and 24-bit, which has 16 million colors.
Composite Video	A video signal that contains all of the video information (Y/C) in one signal.