● **Installation Guide**

ELSA Graphics Boards
AGP

ELSA

Read this before you or your child play a video game!

Note the following warnings before starting to play a video game

Do not play when you are tired or short of sleep. Make sure that the room is well lit and the lighting is adjusted to the brightness of the monitor. When you are playing a video game that is connected to the monitor, keep back a suitable distance from the monitor to the extent allowed by the length of the cable.
Take a break for 10 to 15 minutes every hour while playing.

Epilepsy warning

Extremely pronounced light effects such as fast image changes, repetitions of simple geometric shapes, flashes of light like lightning or explosions may induce epileptic fits or blackouts in some persons. Even persons with no previously known tendency to epilepsy may be in danger.
If you or a member of your family has been diagnosed as prone to epilepsy, please consult your physician before playing the video game.
Parents should monitor their children carefully when they play video games. If you feel any of the following symptoms or detect them in your child, stop the game immediately and consult a physician: nausea, vision disturbances, muscle tension or cramps, orientation problems, involuntary movements or brief loss of consciousness.

Dear ELSA customer,

This Installation Guide will help you to get your ELSA graphics board working as quickly as possible. The ELSA setup program on the CD will guide you step-by-step through the installation of the drivers and software tools.

All graphics boards from ELSA are installed in the same way. This Installation Guide is not just for a specific ELSA graphics board but it describes how to install all current ELSA graphics boards.

In addition to the drivers for the different operating systems, ELSA offers a series of enhancements and extras for various applications. You can find descriptions of these components in the electronic manual on the CD.

Note the following

Before installing the new graphics board in your computer, check the following items:

● Does your motherboard have an expansion slot that meets the specifications of AGP 2.0?
● Is the neighboring PCI slot free?
● Have you assigned an interrupt (IRQ) to the expansion slot intended for the graphics board in the computer BIOS?
● Have you uninstalled old graphics drivers or software?

Installation of the graphics board

Before removing the power cord at the rear of the PC case, touch the metal case of the computer briefly. This will discharge any static loading that could destroy sensitive components in your computer or on the graphics board.
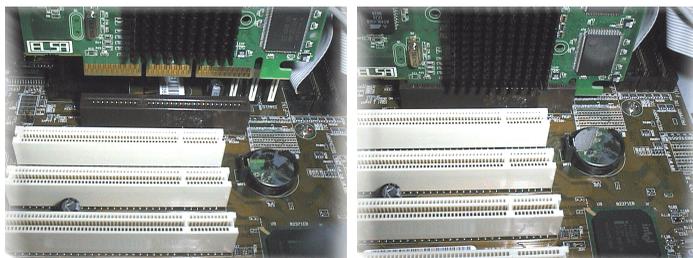
Procedure

❶ Remove the power cord at the rear of the PC case, remove the screws and fasteners and remove the cover.

❷ Before installing your new board, you will need to remove the old board or remove the filler bracket at the slot.

Caution when removing a board: If your computer was running before you start, the graphics processor may be hot. Allow the board to cool. In any case, avoid touching the components of the board.

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❸ Insert the graphics board into the appropriate AGP expansion slot on the
motherboard, and screw the bracket to the case. Ensure that the graphics
board is firmly placed in the expansion slot.

❹ Close the computer and fasten the case in place.

❺ Plug the monitor connector cable into the socket on the graphics board
and the computer power cable into the electrical socket.

Did you remember the interrupt?

Your ELSA graphics board needs an interrupt for proper operation, otherwise
it will not be properly detected when installing the drivers. You can check the
interrupt assignments in Windows as follows:

Windows 95, Windows 98 and Windows Millennium Edition (Me)

① Open the 'System properties' with **Start** ▶ **Settings** ▶ **Control Panel**
▶ **System**.

② Click the 'Device Manager' tab.

③ Double-click 'Computer' in the list window.

Windows 2000

① Open the 'System properties' with **Start** ▶ **Settings** ▶ **Control Panel**
▶ **System**.

② Click on the 'Hardware' tab and then on the **Device Manager** button.

③ Select 'Resources by Connection' in 'View' in the window.

④ Click the plus sign before the interrupt entry.

You will see an overview of all assigned interrupts with their device assignment. Use your motherboard manual to check the graphics board expansion slot. Finally ensure that the automatic plug&play interrupt assignment is set in the computer BIOS setup. If plug&play does not function, you will have to assign a free interrupt permanently to the graphics board expansion slot.

You can find information on the BIOS settings in your motherboard documentation.

System start and software installation

Windows 98, Windows Me and Windows 2000

① Switch on your computer and wait for Windows to start.

Windows 98, Windows Me and Windows 2000 support the plug&play technology. As soon as you start Windows, the new hardware will be detected and you will be prompted for the drivers.

② Confirm the following dialog window by clicking **Next**. When you are prompted for the 'Manufacturer' and 'Model' of the graphics board, mark the 'Standard Graphics Board (VGA)'.

③ Accept all subsequent prompts until installation of the VGA driver is complete.

④ Finally, insert the enclosed CD into the CD drive. The autostart routine will start the ELSA setup automatically. This installation is dialog-based.

⑤ Select the desired entry from the menu, confirm the language version and select the components that you wish to install. You will be shown tips at every stage of the installation process.

Windows NT 4.0

Installation of the standard VGA driver

① Open the 'Control Panel' window with **Start ▶ Settings ▶ Control Panel**.

In the window (index card tab)...	select in succession:
Control Panel	▶ **Display**
Display Properties (Settings)	▶ **Configuration...**
Configuration	▶ **Graphics board: Change**

② 'VGA-compatible graphics board' is already selected in the 'Change Display' selection window. Insert the Windows NT CD into the CD-ROM drive and click **OK**.

③ Confirm the following prompts.

④ Quit Windows and switch off your computer.

⑤ Now install the graphics board and then restart the system.

Windows NT will start in standard VGA mode.

Installing the ELSA graphics driver

① Open the 'Control Panel' window with **Start ▶ Settings ▶ Control Panel**.

In the window (index card tab)...	select in succession:
Control Panel	▶ **Display**
Display Properties (Settings)	▶ **Configuration...**
Configuration	▶ **Graphics board: Change**

② 'Diskette' is selected in the 'Change Display' selection window. Insert the driver CD into the CD-ROM drive.

③ Browse for the correct .inf file, and click **OK**. Please read the 'Readme' file carefully.

④ Quit Windows and switch off your computer.

⑤ Your graphics board driver will be installed when you restart the computer. Now you can make the desired settings, such as color depth and resolution.

Linux

All sorts of information for Linux fans on drivers and how to install them can be found on the Internet.

If you have any other questions the ELSA KnowledgeBase is always available.

AGP boards: Problems and solutions

The KnowledgeBase on ELSA's web site contains information that may be useful in the event of problems or questions related to installation. You can find our support page at www.elsa.com/support.

Clock speed

Problems may occur with overclocked systems. In this case, set the system clock speed to a standard value (66 MHz, 100 MHz or 133 MHz).

Mainboard BIOS and interrupt allocation

Switch on your computer and observe the first system messages during the boot process. In most cases there will be a message at the bottom of the screen prompting you to press DEL to enter BIOS setup. We will be using the setup of the Award BIOS in our example. The AMI BIOS setup is very similar. If your computer uses a different BIOS, please refer to the manual of your mainboard.

The Award BIOS setup menu contains the item 'PNP and PCI Setup'. Select this item and check the following settings:

① The 'PNP OS Installed' entry should be set to YES. The plug&play function for Windows 95, Windows 98, Windows Me and Windows 2000 is thus enabled.

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② The settings for the four PCI slots (slot 1-4) should be set to 'AUTO'.

③ In the right-hand part of the window, look for the entry 'VGA BIOS Sequence'. Set the sequence to 'AGP/PCI'.

If your system still refuses to recognize the graphics board, allocate a fixed interrupt (IRQ) to the graphics board in the BIOS.
In step ②, set the value to Interrupt 11 instead of 'AUTO'.

④ Save and exit the BIOS setup.

AGP patches

It may be necessary to install an AGP patch in order to use an AGP graphics board on some mainboards that do not use an INTEL chipset. This pertains to the following chipsets:

● VIA (www.via.com.tw)
● ALI (www.ali.com.tw)
● SIS (www.sis.com.tw)

To ensure that the system components have been correctly installed, proceed as follows:

① Open the 'System' program with **Start ▶ Settings ▶ Control Panel**.

② Windows 95, Windows 98 and Windows Me
Select the Device Manager and display the 'Models according to type'.

Windows 2000
Click on the 'Hardware' tab and then on the **Device manager** button.

③ Open 'System Components'.

Under the name of the chipset, entries such as the following should be found:

● Intel 82371EB PCI/ISA bridge (ISA mode)
● Intel.../AGP controller
● Intel.../PCI bridge

If these system components are marked as default entries, install the AGP patch under Windows. Please refer to the documentation of your mainboard for the chipset it uses. The information and files necessary to install an AGP patch can be found on the web site of your mainboard manufacturer.

Windows NT 4.0

Windows NT 4.0 requires at least Service Pack 4, otherwise AGP graphics boards may only work with the default VGA driver.