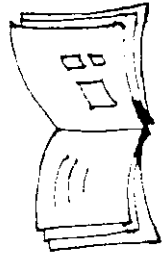
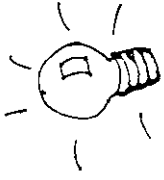


# MANUAL



# 1 Introduction

## 1.1 Brief Description and Characteristics

- Graphics processor: PERMEDIA 2 from 3DLabs featuring an integrated GLINT Delta chip
- Flash-BIOS for quick and easy upgrades
- Pixel clock frequency up to 230 MHz
- In graphics modes, ergonomic refresh rates over 100 Hz are possible
- Plug&Play integration
- Supports energy-saving monitors compatible with VESA DPMS
- ELSA drivers for Windows NT<sup>®</sup>, Windows<sup>®</sup> 95, and OS/2<sup>™</sup> Warp 4
- Hardware support for the DirectX, OpenGL, and EnDIVE 3D graphics standards
- Hardware accelerated 3D 16-bit Z-buffering, Gouraud shading, and texture mapping
- Video In and Video Out
- Product support via Internet WWW site, newsgroups, CompuServe forum and ELSA LocalWeb
- Three-year warranty
- This board complies with the CE and FCC rules (see page 3), and the FCC-IDs are:  
PCI-Bus: KJGP2VIVOUP (4 MB), KJGP2VIVO (8 MB)  
AGP-Bus: KJGP2VIVOUPAGP (4 MB), KJGP2VIVOAGP (8 MB)

## 1.2 Package Contents

Before installing your ELSA graphics board, please ensure that nothing is missing from your package. It should contain the following:

- documentation: Quick Start guide and manual
- graphics board
- CD-ROM with installation software, drivers, and utilities

If any part is missing please contact your dealer.

ELSA reserves the right to change the supplied contents without prior notice.

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**Before you read on...**  
 The installation of the *ELSA WINNER 2000/Office* hardware and software drivers is described in full in the *Quick Start* guide which accompanies this manual. You should refer to that document before attempting to install your board, and before reading this manual.

## 1.3 System Requirements

- **Computer:** ELSA graphics boards are suited for operation in computers with Intel Pentium or Pentium-compatible CPUs.
- **Bus:** Your computer's bus system needs PCI 2.0 compliant bus slots (with bus master capability) or an AGP bus.
- **Monitor:** ELSA graphics boards work with the standard IBM VGA compatible horizontal scan frequency of 31.5 kHz when booting and in DOS operation. In addition, the monitor must be capable of displaying the graphics mode you select.

More information can be found in the chapter "ELSA Graphics Board Addresses", page 25.

## 1.4 CE and FCC Radiation Norm

### CE

This equipment has been tested and found to comply with the limits of the European Council Directive on the approximation of the laws of the member states relating to electromagnetic compatibility (89/336/EEC) according to EN 55022 class B.

### FCC

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the Federal Communications Commission (FCC) Rules. For the FCC IDs see the chapter "Brief Description and Characteristics", page 1.

### CE and FCC

These limits are designed to provide reasonable protection against radio frequency interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception (this can be determined by turning this equipment off and on), the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between this equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from which the receiver is connected to.
- Consult the dealer or an experienced radio/TV technician for help.
- **Caution:** To comply with the limits for an FCC Class B computing device, always use a shielded signal cord.
- A caution to the user: The Federal Communications Commission warns the user that changes or modifications to the unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



*A word of caution to the user: The Federal Communications Commission warns the user that changes or modifications to the unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*