CYBERVISION 64/3D

64 BIT – GRAFIKBESCHLEUNIGERKARTE
FÜR DEN AMIGA 2000, 3000 (T) & 4000 (T)

ANWENDERHANDBUCH

64 BIT – GRAPHICS ACCELERATOR BOARD
FOR AMIGA 2000, 3000 (T) & 4000 (T)

USERS MANUAL

CYBER VISION 64/3D

64 Bit Graphics Accelerator for Amiga 2000, 3000(T) & Amiga 4000(T)

User Manual

2nd Edition February 1997
Copyright 1996
phase 5 digital products
In der Au 27
61440 Oberursel

Conceptual Design:	Gerald Carda, Wolf Dietrich
Hardware-Design:	Gerald Carda
Software:	Frank Mariak, André Osterhues
Board-Layout:	Gerald Carda
Documentation:	Uwe Trebbien, Michael Sistig
Best boy on set	Thomas Knäbel
Best girl on set	Brita
Composition & Layout:	Michael Sistig

English

1. INTRODUCTION

We would first like to thank you for choosing the CYBERVISION64/3D for the Amiga. You are now the owner of a high quality, mature product, which has not only been tested in extensive trials prior to being brought onto the market, but which also reflects many years of experience in the development of peripherals for the Amiga, especially in the planning of expansion systems.A lot of money has been spent not only in developing and refining this graphics card but also in the production of the devices and the development of the software. This level of expenditure guarantees that the CYBERVISION64/3D system will meet the highest requirements of quality, security, compatibility and performance. We hope that this product will provide you with countless hours of trouble-free operation. We would ask you to complete and return the registration card accompanying this product. This will enable us to keep you informed of any future expansions or updates to the CYBERVISION64/3D system and of other developments for the Amiga. It will also provide us with important feedback allowing us to develop products for the Amiga which you as a user actually want. Please take a few days to complete your assessment and to establish your first impressions of how the CYBERVISION64/3D system functions in your Amiga

phase 5 digital products, autumn 1996

2. WITH YOUR HEALTH IN MIND

The graphics card and the monitor are the visual link between you the user and your computer. Graphics cards and monitors should be considered one unit and you should spare no expense when purchasing them as a poor monitor can cause irreparable damage to your health even when using the best graphics cards. When buying a monitor you should not only check the performance data, but also that it has been tested to British Standards and that, as a minimum, it satisfies the MPR-II standard relating to radiation emissions.A balanced team of monitor and graphics card not only looks very impressive but is also good for your health!

3. SCOPE OF SUPPLY

The CYBERVISION64/3D is supplied with several small accessories and documentation/ software. At this point you should check that you have the following items:

> ▶ The CYBERVISION64/3D graphics card

> ▶ One diskette containing the installation software and software drivers

> ▶ A registration card

> ▶ This manual

If you are missing any of these items please contact our Technical Support Centre and we will arrange for a replacement item to be despatched.

4. SYSTEM REQUIREMENTS

The CYBERVISION64/3D works in any Zorro-II/Zorro-III bus module slot for plug-in cards in the Amiga 2000, 3000(T) and 4000(T). You will need Kickstart 3.x to operate the software, and your computer should have more than 4MB Fastram. Ideally it should have at least 4 MB but there is no upper limit. It is possible to use your CYBERVISION64/3D with a 15 kHz monitor, e.g. to record animations with a video device, but this would not make optimum use of the capabilities of your CYBERVISION64/3D. We recommend a 17" monitor with 56 kHz line frequency but if you really want to use the power of your CYBERVISION64/3D, a 20" monitor at up to 86 kHz is preferable.

Minimum Configuration

> ▶ Amiga 2000, 3000(T) or 4000(T) with 68020 or better

> ▶ a free Zorro-2/Zorro-3-bus plug-in slot

> ▶ 4MB Fastram – Kickstart 3.0

> ▶ Colour monitor with 15 kHz line frequency

Recommendede Configuration

> ▶ Amiga 3000 or 4000 with 68040 or better

> ▶ a free Zorro-3-bus plug-in slot

> ▶ 8MB Fastram – Kickstart 3.1

> ▶ 17" Colour monitor with 56 kHz line frequency

5. 64 BIT - THE FOUNDATION FOR GRAPHICS CARDS

Hardly any other module for the Amiga is available on the market in such great variety. The heart of a graphics card is the graphics processor: the most important component and the greatest difference between the cards available. For many applications the graphics card is just as important as the computer CPU. Expensive interfaces and fast animations demand greater performance from the graphics card.

High class graphics cards work with 64 bit bus widths. The advantages of a 64 bit processor are often not evident as the Zorro II resp. Zorro III Amiga bus only operates with 16 resp. 32 bit. At this point it would be beneficial to identify the differences between the individual components that are linked via the bus, i.e. the CPU and the graphics card. The CPU sends the graphics commands via the 16/32 bit wide bus to the graphics card. 64 bit graphics cards can process these commands in double width. This is logical as the commands issued by the processor contain less data than they produce when executed. The bus width plays a subordinate role with traditional applications (text processing, table calculations), as most commands (drawing lines / filling areas) are processed by the graphics processor. Large bit widths are mostly required by multi-media applications and DTP, where the CPU is particularly busy and a wider bus ensures fast data exchange.

64 bit graphics cards also allow the graphic memory to be configured to 4MB, which guarantees acceptable colour depth even in high resolutions. Graphics cards with 2MB used to be adequate but modern multimedia and graphics applications now demand much more!

The graphics processor is capable of 1280x1024 resolution even at acceptable refresh rates (70 Hz) and with a minimum of 8 bit producing 256 colours. Modern graphics processors, such as the Virge DX from S3 which has been used on your CYBERVISION64/3D, provide the user with all these benefits.

6. RESOLUTIONS, COLOR DEPTH, FREQUENCIES

Before you change the default settings or the monitor type, please read through this chapter. Line frequency, refresh rate, band width and colour depth are common terms that every computer user has heard but may not fully comprehend.

Line Frequency: This defines how many times per second the electron rays must overwrite the screen from left to right and back. The return ray is darker and is, therefore, not visible to the observer. The line frequency is the product of the number of lines displayed (e.g. 768) and the number of non-interlaced displays (e.g. 70), i.e. 53760, to which the synchronisation lines must be added, resulting in approx. 54.5 kHz.

Refresh Rate: This value is also known as the vertical frequency and is the frequency with which the segments of a monitor picture are written over each other. At a resolution of 1024x768 this value should be at least 70Hz.

Band Width: This defines the transmission rate of electronic circuits boards. In the field of video band width is used to describe the frequency in which the pixels follow on from each other. The higher the line/refresh frequency, the higher the band width must be to process them. Good quality monitors have a band width of around 100mHz. It is always important to use high quality VGA cable with high band widths, as the normal low cost cable significantly impairs the picture quality above 70mHz. Modern graphics processors have band widths of 130mHz.

Colour Depth: This defines how many visible colours can be simultaneously displayed on your

screen. High colour depths require high band widths for the graphics processor, as a 24 bit screen requires three times more graphics data than an 8 bit screen. The following section shows how to set up the necessary graphics memory for the various resolutions and colour depths of the CYBERVISION64/3D.

Resolution	Colour Depth	Resolution	Colour Depth
640 x 480	256 (8 Bit)	1024 x 768	256 (8 Bit)
640 x 480	32K (16 Bit)	1024 x 768	32K (16 Bit)
640 x 480	16M (24 Bit)	1280 x 1024	256 (8 Bit)
800 x 600	256 (8 Bit)	1280 x 1024	32K (16 Bit)
800 x 600	32K (16 Bit)	1600 x 1200	256 (8 Bit)
800 x 600	16M (24 Bit)		

ADVICE!

Not all monitors are suitable for the full use of your CYBERVISION64/3D! The CYBERVISION64/3D is a modern graphics accelerator for your Amiga, which likewise requires a modern monitor. Your CYBERVISION64/3D is capable of producing frequencies (vertical / horizontal frequencies), that were not even within the capabilities of specialist CAD graphics cards two years ago. You must consult your monitor's instruction manual if you want to change with *CyberMode* the settings of your monitor type. Modern monitors are mostly protected against overload but do not depend on this!

In the directory: *sys (dir)*
                            prefs (dir)
                                presets (dir)
                                    monitors (dir)

you will find the „monitor-xxkHz" file, where xx means the selected line frequency of your monitor. If you chose the default monitor type when installing the CYBERVISION64/3D software, 31 kHz will appear in place of xxkHz.

If you have a monitor that supports a higher line frequency, you can select another monitor type, but ensure that the chosen line frequency does not exceed that of the monitor (e.g. if your monitor supports 60 kHz please select Monitor-54 kHz).

A list of the default monitors available will be displayed during installation. You should only ever select a default monitor that does not exceed the capabilities of your monitor.

If you have lost or mislaid the manual for your monitor, please contact the manufacturer of the device. They will certainly be able to help you and provide you with the necessary technical data.

ATTENTION!

You must never change the monitor parameters without knowing the precise data, as this will cause damage to your monitor!

7. THE CONCEPT – INTRODUCING A GRAPHICS CARD

The CYBERVISION64/3D realizes a graphics board for the Amiga 2000, 3000(T) and 4000(T) which satisfies the most demanding requirements on perfomance and system conformity because of its combination of an extremely fast autosensing Zorro2/Zorro3 bus interface, a 64 bit wide graphics controller and exceptional software.

Based on the highly integrated graphic chip Virge DX from S3 the CYBERVISION64/3D offers complex multimedia capabilities.

In addition the CYBERVISION64/3D offers the possibility to sort Alpha-R-G-B by hardware within a transmitted 32 bit data word without delay. This feature allows very high display speed for true color screens.

Complementing this efficient hardware is excellent CyberGraphics driver software which fully utilises the performance of the card for unusual system conformities. The CyberGraphics screen modes are installed via the CyberGraphics monitor files, are available via normal ASL-Requester (e.g. in screen mode in PREFS) as „normal" system resolutions, and for common applications operating under OS3.0 or 3.1 require no additional driver. Working with CYBERVISION64/3D becomes a real pleasure. By supporting many functions, such as draggable screens or virtual screens that can be considerably larger than the actual screen resolution and within which you can scroll much like within an AMIGA Superbitmap, the CYBERVISION64/3D achieves an extraordinary Look-and-Feel that is difficult to differentiate from the original AMIGA resolution. For the first time it is possible to use Workbench in 24 bit without compromising on the speed. With 4MB graphics memory, screens are draggable even in high colour, so that you do not see a difference compared with Amiga standard graphics.

Naturally, the CYBERVISION64/3D has an expansion bus through which additional cards such as MPEG cards can directly access the fast video memory making the CYBERVISION64/3D suitable for future developments.

Numerous drivers make it possible to use applications such as ADPRO, PHOTOGENICS, AMAXIV, XIPAINT, SCALA and others on the CYBERVISION64/3D even in high colour depths. Even larger animations in 24 bit pose no problems for your CYBERVISION64/3D. We are constantly working on the development of new drivers.

8. HARDWARE-INSTALLATION

The CYBERVISION64/3D graphics card is to be installed into a free Zorro-2 slot on the Amiga 2000 repectively into a free Zorro-3 slot on the Amiga 3000(T) or Amiga 4000(T). **Note: If you own an Amiga 2000 we strongly recommend that you use the fist Zorro 2 slot (directly beside the CPU slot).** The installation of the card is relatively simple, but if you prefer your dealer can install it for a small charge.

Installing the CYBERVISION64/3D Graphics Card

1. Switch your computer off.

2. Disconnect all cables from your computer (monitor, mouse, keyboard, other interfaces, etc.)

3. Remove the screws that secure the casing cover. On the Amiga 2000 as well as on the Amiga

3000 there are two at the bottom of each side of the casing and one in the middle on the back. On the Amiga 4000 there are only two screws that secure the casing cover, on the back of the casing on the right and left.

4. Carefully remove the casing cover. On the Amiga 4000 you simply lift it off and on the Amiga 2000 and Amiga 3000 you pull it forward. For further information, please consult your Amiga User Manual.

5. For A3000(T) and A4000(T) identify a free Zorro-3 slot. For A2000 identify a free Zorro-2 slot. If the use of the optional scandoubler/monitor switcher is desired, make sure, that the selected Zorro-3 slot is in line with the video slot. If you have problems identifying the mentioned slots please consult your Amiga User Manual.

6. Remove the cover plate from the chosen slot. The cover plate is held on by one screw. To make later operations easier, remove the screw completely, even if you can remove the cover plate it only partly unscrewed.

7. Discharge any static charge from your body by simultaneously touching the Amiga casing and the CYBERVISION64/3D.

8. Remove the CYBERVISION64/3D from the antistatic packaging and place it in the slot you have chosen.

9. Now line up the back edge with the guide rail. The card should now be parallel to the plug-in contacts of the Zorro slot.

10. Press the card into the slot, by pressing on the top of the card with your thumbs whilst supporting your fingers on the metal frame. If the card is correctly installed, you should only see a small part of the gold connector contact in the expansion connector. If the expansion slot has never been used before you may need to use more effort, but please do not use excessive force.

11. Attach the card cover plate with the screw that you removed from the empty slot.

12. Close up the Amiga casing.

Connecting the Monitor

Connect the monitor cable to the VGA port marked OUT on the CYBERVISION64/3D. (Refer to chapter "9. Connectors" for that purpose) This connector outputs always the CYBERVISION64/3D video signal. You can use a 15kHz monitor in parallel on the standard Amiga RGB port for a two monitor system.The second empty connector is reserved to hold the VGA outlet of the optional scandoubler module. The scandoubler increases the line frquency of the standard Amiga video output to make Amiga 15kHz video modes suitable for a standard VGA monitor.

For use as a single monitor system, you need to connect the VGA monitor to the scandoublers outlet. As long as a CYBERVISION64/3D screen is frontmost, the scandoubler just passes the grapics board output. If a standard Amiga screen becomes frontmost, the scandoubler passes the enhanced Amiga video signal to its connector.

For use as a two monitor system, you can connect the first monitor to the scandoubler andthe second one to the CYBERVISION64/3D connector.
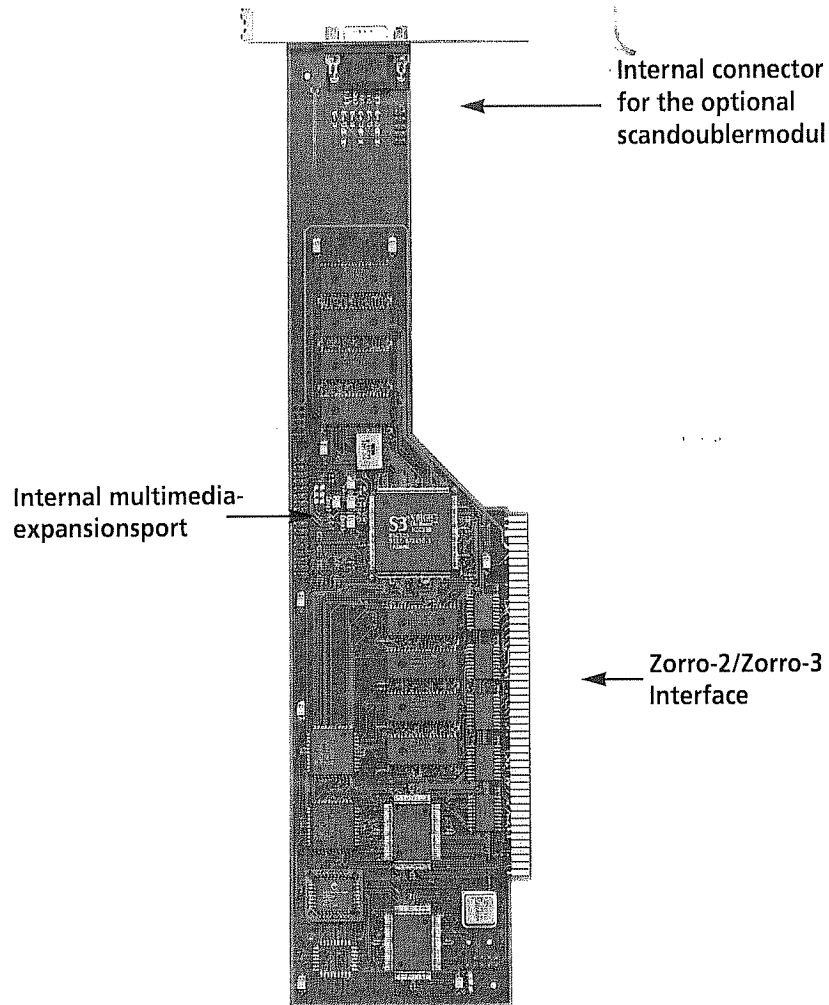
The square opening is provided for future expansions.

9. CONNECTORS OF THE CYBERVISION64/3D
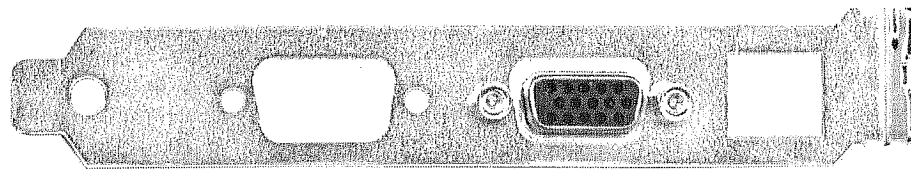
Plug for the optional
scandoubler modul

OUT

Internal connector
for the optional
scandoublermodul

Internal multimedia-
expansionsport

Zorro-2/Zorro-3
Interface

10. SOFTWARE INSTALLATION

The installation of the software does not require any system specific experience.Please make sure you read Chapter 5 „Resolutions, Colour Depth, Frequencies" if you want to use another monitor type as the default !After inserting the installation diskette, double click with the mouse on the diskette icon to open it. Now double click on the diskette to start the installation program. The installation is performed completely automatically. When prompted for the monitor type you are using, click on the button corresponding to the maximum line frequency of your monitor. You will find this in the monitor user manual. **The software is still under development. Therefore please refer to the corresponding README-files on the disk for latest information of the software and the provided utilities.**

During installation, the following files will be copied into the appropriate directories:

> *devs:*
> > *monitors (dir)*
> > > *CVision3D*
>
> *libs:*
> > *cgxsystem.library*
> > *cgxvideo.library*
>
> *prefs (dir)*
> > *env-archive (dir)*
> > > *cybergraphx (dir)*
> > > > *CVision3DMonitor*

The programs perform the following tasks:

Monitor Files

CVision3D   This is the CYBERVISION3D/64 monitor driver, it contains the basic functions for addressing the graphics card and is the link between the hardware and software.

Libraries

cgxsystem.library
cgxvideo.library   This section of the software represents the intuition emulation that makes your CYBERVISION64/3D communicate with intuition. Each change to your screen will be analysed by these libraries and „translated" for your CYBERVISION64/3D.

Environment Variables

CVision3DMonitor   This environment variable communicates the monitor definition to be used to the intuition emulation.

Monitor-xxKhz   This environment variable contains all monitor specific settings. These are resolution, colour depth, line frequency.

HIRESCRSR	1	The Lores-Sprites on non-AA-machines become Hires-sprites (they are no longer doubled by the CyBERgraphics-Software).
	0	Lores-Sprites are doubled by the CyberGraphics-Software.
HIDE15BIT	1	Switch off 15bit modes to reduce screenmode list length. The Modes are still available but hidden.
	0	Display all available modes.
SAVEMEM	1	If this option is on, CyberGraphX will reduce memory consumption in less or equal 16 colour modes, CyberGraphX keeps a planar representation of the screen bitmap in fastmem and a chunky representation in video memory.
	0	CybergraphX needs more memory but it will be faster.
ALERTEMU	1	DisplayAlert(), the Screens you get when the machine crashes, will be placed on an CyBERgraphics screen.
	0	DisplayAlert() is displayed on normal Amiga default screen.
CPUP2C	1	The planar-to-chunky conversion will be done by the CPU (in contrast to the blitter-conversion) Therefore the ugly-looking „planar" blitting-effects are gone, but the software-conversion is slower.
	0	Planar-to-chunky conversion is done by use of the Cybervision64/3D.
PLANES2FAST	1	Non displayable planar bitmaps are allocated in fast memory. This options speeds up handling of planar bitmaps but could lead to problems with amiga graphics which insist on planar graphics placed in chip memory. Take care when using this option.
	0	Planar bitmaps are left where they meant to be.
NOPASSTHROUGH	1	The monitor switch on the optional Scandoublermodul is deactivated. This option is required for multi monitor systems.
	0	The monitor switch is activated to work in automatic operation to display the frontmost screen.
KEEPAMIGAVIDEO	1	Amiga display DMA is active even if an CyberGraphX screen is the front-screen. This is neccessary for multi monitor systems
	0	Everytime a CyberGraphX display becomes frontscreen, Amiga display DMA is deactivatedin order to increase chipmem access speed.

CGXMode
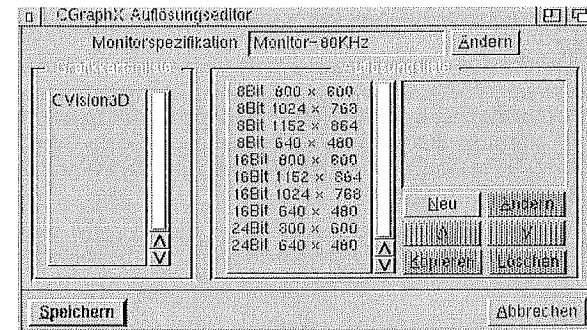
This program produces its own monitor definition files. It is divided into two sections. The first section defines the threshold values of the monitor and the second configures the resolution. Activate the „Monitor Specification" icon to open the window for defining the monitor threshold values.

Monitor Specification

At the mark „NAME" You can edit the Name for the Monitordefinitionfile. All changed settings will be saved under this name. Sometimes it makes more sense to have a new Monitordefinition at hand, the easiest way to create a new definition file is to copy the actual setting and then edit them to your needs (Resolution, Colordepth or Frequency) The settings for the Bandwidth, verticalfrequency and Horizontalfrequency are usually mentioned in the manual of Your monitor. The settings for the Horizontal and vertical synchronisation unfortunatly are not allways printed in the manual of the monitor, therefore you should only alter them if You REALLY know what Your doing. If You are not 100% sure of how to edit these parameters properly, please consult Your hardwaredealer whom You have purchased the Monitor from.

All mentioned settings here should be understood as absolute values with the actual settings.

Resolutions

When you have changed the monitor parameters, the resolutions available must be changed accordingly. Chose a resolution from the list and select „Change" to set the values valid for this resolution.

All values for the horizontal settings relate to multiples of pixels. The values for vertical frequencies relate to display lines. CGXMode prevents you setting values that are outside the threshold values set in the monitor parameters. When setting the horizontal value, please note that when you change the horizontal frequency on many multi-scan monitors, this causes resynchronisation of the monitor.

NOTE: Once You have generated a Monitorfile, You may exchange them with other flawlessly. If You have generated a Monitorfile for Your monitor, other Users may like to take advantage of it if You make it accessable to the public. Versavice You may use other Monitorfiles by moving them into your *„sys:prefs/monitors"* drawer.

11. TROUBLESHOOTING

ADVICE!

It is not possible to operate the CYBERVISION64/3D with accelerated processor cards, if the motherboard is operated with any other than the original frequency of 25MHz. Overclocking the Busterchip causes the Zorro3 bus to malfunction. We recommend installing a Buster revision 11 for error free functioning of the CYBERVISION64/3D.

You have successfully mastered the manual, but the CYBERVISION64/3D card still does not work. This addendum should help you to find the most common errors.

Step I   You have installed the software correctly. Please reset the AMIGA and push both-mouse buttons to go into the bootmenu. Push the button „Expansion BoardDiagnostic". A list with all the available cards should be shown. Find the Cybervision card with the manufacturer ID : 8512 and with the Product ID : 67. The Status display should say „Working". If you can not find the card please go to „Step V". Should Status say „Defective" please check your Z2-Bus, should the card be used in a Z3-Bus system, then please go to „Step III". The Z2-Bus system only has 8Mb of address space. The CV64/3D uses 4Mb, this causes problems, when using other cards in the Z2-Bus (e.g. Commodore 2630/4 uses 4Mb of address space in the Z2-Bus). To be sure not getting such a conflict, please dismount all cards except the processor card and redo „Step I".

Step II   Which Kickstart version are you using? We recommend Kickstart 3.1 . The CV64/3D also works with lower versions than Kick 3.1, but some function in the ROM of Kickstart 3.1 are optimized for graphiccards.

Step III   You are using a CV64/3D in a Z3-Bus. This provides bussystem enough addressspace for your CV64/3D card. Should status say „Defective" please return the card to your local dealer to be checked. It could also be, that your Z3-Bus is defective.

Step IV   Your card shows „Working" in the status display. Now there are two possibilities, what could be defective. First of all, you did not correctly install the software. (Please install the correct Monitor driver (Z2/Z3-Bus)). Second possibility could be a faulty Monitor signal produced through a wrong selection in the installationscript. (Use a lower KHz-Monitor), or try to find a friend with a SVGA-Monitor and plug it into the CV64/3D. If it still does not work, please go to „Step VI".

Step V   You can not find your card in the „Expansion Board Diagnostic". Do you use a Zorro II/III Expansioncard for A1200, A3000 Desktop or A4000 Desktop ? Please phone up your local dealer were you bought it and ask him for advice. In most cases a hardware upgrade should be done. If you do not use such a card (e.g. A2/3/4000(T)), try changing the slot you plugged the card in.

Step IV   Please call the Hotline or your local dealer.

Further possible Faults:

AFTER OPENING A CYBERVISION SCREENMODE, MY COMPUTER CRASHES WITH A GURU!

Many People use system patches on their Amiga, to get Access to new Features. Unfortunatly some of these Patches make changes to the OS so that the Intuition emulation cannot work 100% correctly.Please de-install these patches before using the Cybervision 64/3D.

IN SOME SCREENMODES THE MOUSEPOINTER IS DISTORTED OR IS HAS VERTICAL LINES RUNNING THRU IT

This fault may occure when the Horizontal Pulseoffset is to low. Increase the Pointer for the Pulseoffset with **CGXMode** on the faulty screenmode by one or two.

SOME SCREENMODES WILL NOT BE DISPLAYED

Modern Monitors switch off if the Synchronisationfrequency is beyond the Monitorspecifications. The affected Screenmodes should be fitted to the Monitor using **CGXMode**.

WHILE PULLING DOWN A CYBERVISIONSCREEN THE DISPLAY BECOMES UNREADABLE

This effect occures in Interlace screenmodes, it is a limitation of the Graphic chip. The Chip is not able to start Interlace screenmodes at a random point.

THE INSTALLER ABORTS DURING THE PROCESS

There are different Installers from Commodore and Amiga Technologies. We have been told that the Installer is Font-sensitive, it seems to be not. What might happen is that the Installer automaticly comes up with an ABORT requester during the installation, this only happens if your font is TO BIG. To avoid this, go to PREFS/FONT and change the active font to TOPAZ/8, this should solve the problem.

THE MONITOR DOES NOT DISPLAY ANY SCREEN/DISPLAYS A GREY SCREEN

Please check that You really have the Monitor connected to the Graphicscard. The standart Videoport is not able of handeling the new Screenmodes.

THE MONITOR DISPLAYS ONLY THE CYBERGRAPHIX LOGO OR STAYS BLACK THOU I HAVE CONNECTED THE MONITOR PROPERLY

Neverless You have installed the software properly, you must switch your standart workbench displaymode to the graphicscard using the SCREENMODE program in PREFS. Otherwise the Workbench is beeing displayed over the standart Amiga videoport since the Graphicscard is not able to display standart amiga screenmodes. Should You be using a Scandoubler, please check the connectors again.

AFTER RUNNING A PROGRAM, THE SCREEN TURNS BLACK

Some programs open a screen (OCS/ECS/AGA) without giving the user a option to choose a screenmode. Programs like this can be redirected to the graphicscard with tools like „NEWMODE". If this also fails, You should consider buying a Scandoubler or a second monitor to connect to theoriginal amiga videoport. If you allready have a Scandoubler, please check its connectors.

THE CARD FITS TO LOOSE OR TO TIGHT

All phase 5 cards are manufactured with very tough materials and are cutted with a precision up to 1/10 mm and therefore are even more precise than the tincases of the computers it is built into. Should You have have problems with the card, please check that you have installed the card

properly into the computer. If you are not satisfied by now, you will need the help of a professional technican, often the cases of the computers are not bent properly so that the card will not fit flawlessly into the system. In such cases consider not putting the screws of the slotcovering back in.

THE WORKBENCH SHOWS A STRANGE BEHAVIOR, AND YOU CANT TELL WHAT IT IS

The Cybervison 64/3D is designed to work on Zorro II and Zorro III computers, by doing that the card reserves 256mb on Z3 computers, while operating with only 4mb on Z2 computers. therefore the devision of the memory is different with one and the same card, depending on what system it is installed to. For that there are 2 versions of the monitorfile, one for ZORRO II and one for ZORRO III. Ofcourse You will have to select the proper type for your system, since the installer cannot tell what type of bus you have. this is simmilar with the cgxsystem.library and the cgxvideo.library, since there are different types of CPU's there are also different types of the software, if you are a owner of a 68030 cpu, please consult your manual under „SOFTWARE INSTALLATION".

THE MOUSEPOINTER IS CHANGING ITS COLORS DEPENDING ON THE BACKGROUND

The chip that is beeing used on the graphicsboard comes from the PC sector, the Mousepointers on those systems only use 2 changable colors while the amiga uses 3. The third color is therefore not changable anymore but it is the "Inverted" color of the background. There also is a fourth color, witch is transparent just as on the original Amiga graphic. To solve this problem you should change the mousepointer with *Sys:Prefs/Pointer*.

YOU HAVE A A1200 ZORRO WITH A ZOORO 2/3 UPGRADE AND THE CARD ISNT WORKING

Unfortunatly some Zorro 2/3 boards for the Amiga 1200 donot act just like the original boards that the graphicscard was designed to work with. In such cases you should contact your dealer whom you have purchased the the Zorro 2/3 upgrade from.

YOU HAVE REDIRECTED THE SCREENOUTPUT OF THE PROGRAM WITH A 'SCREENPROMOTER' AND NOW ALL PARTS OF THE SCREEN ARE ON WRONG POSITIONS

If the redirected program opens a screen that is smaller than the screen it is beeing redirected to, problems may occure since the redirected screen is beeing centerd. Make sure You only redirect a screen only to another screen with the same resolution (eg. 640x480 16 colors to 640x480 255 colors).

THE CARD WILL NOT BE RECOGNIZED IN A AMIGA 2000 (ZORRO 2)

A Zorro 2 Amiga can only adress a maximum of 8 megayte of ram, the Cybervision cv64/3d allready uses 4 mb of the maximum of 8 mb. To check if the Card is recognized properly, enter the Bootdy menu (hold down both mousebuttons during reset). If the card is being displayed as 'DEFECTIVE', it is not recognized properly. Also make sure that You have the card inserted into the first slot (right beside the acceleratorboard).

12. GUARANTEE

phase5 digital products provides the registered user of this CYBERVISION64/3D with a 12 month parts and labour guarantee, commencing on the date of purchase. During the period of this guarantee we will remedy all defects either by exchange or repair, at our discretion, which are due to material or manufacturer's defects. Execution of the rights under this guarantee in no way affects the period of the guarantee.

The guarantee specifically excludes claims for damage caused by external influences or improper use, and in particular unauthorised repairs. Modifications to the hardware, of any type, automatically invalidates any rights to claim under this guarantee.

The guarantee also specifically excludes claims for operational defects of the CYBERVISION64/3D or other devices connected in / to the AMIGA after the system has been altered (such as fitting new expansion cards), if it cannot be proved beyond doubt that a technical defect of the CYBERVISION64/3D is causing the fault. This also expressly includes any changes to the AMIGA hardware which have been carried out by the Amiga Technologies company by way of repairs, subsequent improvements or system updates.

Furthermore we accept no liability for defects or damage to devices other than the CYBERVISION64/3D, nor for losses of data, which were or seem to have been directly or indirectly linked with the installation of the CYBERVISION64/3D. For memory modules supplied, the guarantee of the respective manufacturer applies exclusively.

13. TECHNICAL SUPPORT AND SERVICE

If you need technical informations about the installation, available add-ons or compatibility problems, please contact your local dealer. He will provide you with competent information and is able to figure out the possibilities to enhance your system. The experienced Amiga/phase5 dealer has the knowledge and the service informations to solve most of the technical or compatibility problems. Even in case of defects covered by our guarantee (see the chapter „guarantee claims, returns") , he can give you valuable advices.

Beyond that you can achieve support-informations in the Internet. Starting end of february 1996 our World-Wide-Web server is online, our homepage is

☞ **http://www.phase5.de**

There you find all kind of technical informations about present and future products, which maybe of interest to anybody and/or will answer specific questions about a product. These infos are updated regularly to provide you with the latest suggestions and advices regarding compatibility problems, tested third party add-ons, known bugs and how to work around. The tips and advices are always up to date. Obviously you can download the latest software and driver versions.

Updates, as far as necessary and available for our products, you can also achieve from our ftp-server. You will reach our server under:

☞ **ftp://ftp.phase5.de**

In rare cases your dealer will not be able to solve your problem to your convenience. In that case, or if you are not online and need a update, please feel free to contact the phase 5 support-department via fax or phone, or, if you like better, write us a letter.

13. GUARANTEE CLAIMS, RETURNS

Guarantee claims in Germany should be made direct to our Support Department
Please contact:

phase 5 digital products
Support Department
In der Au 27
D-61440 Oberursel
Germany
Telefon: +49(0)6171 628455
Telefax: +49(0)6171 628456

In all other countries please contact our distributors or your dealer

Goods may only be returned after prior consultation with and authorisation by our Support Department. You will be given a Return Material Authorisation (RMA) number which must be clearly marked on the goods returned. *Please note that returns without a RMA-number cannot be accepted! Also returns for which postage has not been paid cannot be accepted.*

If no defect is found on an authorised return a processing fee of USD 30.00 or DM 50,00 will be charged. If a defect is found which is not covered by the guarantee then the processing fee will be charged as well as an additional repair fee, dependant on the defect.

No liability can be accepted for damage during transit due to unsatisfactory packaging when returning devices. Always use the original packaging when returning a CYBERVISION64/3D and also a sturdy outer packing (e.g. post office parcel) and if necessary padding (e.g. newspaper).

English