BLIZZARD
SCSI-KIT IV

SCSI-ERWEITERUNG FÜR DAS
BLIZZARD 1230-IV UND DAS
BLIZZARD 1260 TURBO BOARD

SCSI-EXPANSION FOR THE
BLIZZARD 1230-IV AND THE
BLIZZARD 1260 TURBO BOARD

ANWENDERHANDBUCH
USER'S MANUAL

phase 5
DIGITAL PRODUCTS

C E

Warning!

This is a class A device. This device can cause radio interference in living areas. In that case the operator is responsible to counteract adequatly at his own cost.

Remark

If the poor shield of the Amiga 1200's plastic cover causes radio interference in your environment, you can try to alter the location of your computer or you may install the Amiga in a proper shielded metall case.

Introduction

Thank you very much for choosing our product. By purchasing the BLIZZARD SCSI-KIT IV, you have acquired a high-quality and perfected product which will set new performance standards in its class. Its most important features are:

▶ *FAST SCSI-II DMA Controller for the BLIZZARD 1230-IV or BLIZZARD 1260 Turbo Board.*

▶ *Transmission rates up to seven Mbytes/sec. asynchronous and up to ten Mbytes/sec. synchronous on the SCSI-bus.*

▶ *72-pin standard SIMM socket for memory expansion by up to 128 MB in addition to the memory already installed on the BLIZZARD Turbo Board, completely auto-configuring.*

▶ *The processor on the BLIZZARD Turbo Board is not burdened because of the DMA transmission (Direct Memory Access). The BLIZZARD SCSI-KIT IV therefore is ideally suited for multimedia applications.*

▶ *Comprehensive software including the dynamic caching software DynamiCache and the CD-ROM file system CDrive facilitates working with slower SCSI devices and allows immediate connection of CD-ROMs.*

▶ *Made in Germany, 12 months warranty.*

Scope of delivery

Check immediately after receiving your BLIZZARD SCSI-KIT IV if delivery is complete. The shipment must contain

▶ *a board (the BLIZZARD SCSI-KIT IV)*

▶ *an external connection plug with internal connection cable and fastening screw screwed in from below*

▶ *a disk*

▶ *this manual*

Should one of these parts be missing, please contact our servicing department or the dealer you have purchased your board from.

NOTE

☞ *As the BLIZZARD SCSI-KIT IV is suited for both the BLIZZARD 1230-IV and the BLIZZARD 1260 Turbo Board, these two models are generally referred to below as „BLIZZARD Turbo Board". The depictions demonstrate installation by way of a BLIZZARD 1230 IV Turbo Board, however, they also apply to installation of a BLIZZARD 1260 Turbo Board, which has identical mechanical dimensions and contours.*
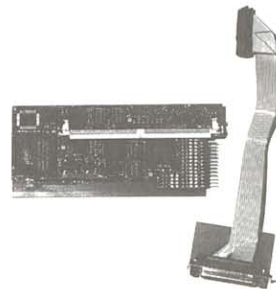
Figure 1:
The BLIZZARD SCSI-KIT IV

1. Hardware installation and configuration

Installation of the BLIZZARD SCSI-KIT IV principally is quite simple, however, due to the limited space available in the AMIGA 1200, some skill will be required. Be sure to remove all cables and connections from the AMIGA before commencing installation. Carefully remove your BLIZZARD Turbo Board as final step. The fastening screw located on the lower side must be removed from the external connection socket.

Figure 2:
The connection cable
ready for installation

The external socket is installed in the extension shaft at the rear of the AMIGA 1200. First open the cover lid with a small coin or a screwdriver.

After removing the cover lid, carefully turn your AMIGA 1200 over and place it on the keyboard. You may now insert the external socket into the installation shaft; be sure to extend the plugged-on connection cable through the duct to the lower extension shaft. It may be necessary to wiggle the connection socket during installation until the cable end with the plug slides through the duct. Make sure the plug at the cable is bent as depicted in figure 2, so the cable/plug connection is as flat as possible. As soon as it has been inserted through the duct, it may carefully be pulled further into the lower extension shaft.

Figure 3:

*Inserting the SCSI connection socket*
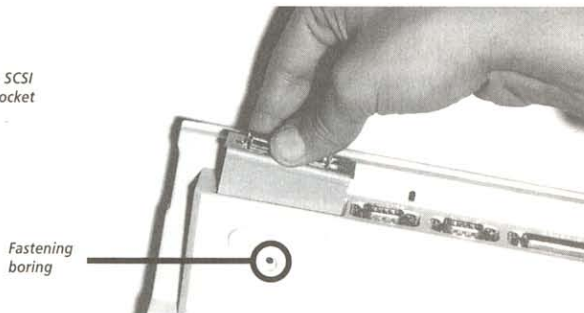
Fastening boring

As soon as the cable has been guided through the duct, the connection socket may be pushed into its terminal position in the AMIGA housing (Fig. 3). The screwing thread in the assembly panel must be located precisely over the fastening boring.

Figure 4:

Attaching the BLIZZARD SCSI-KIT IV to the Turbo Board
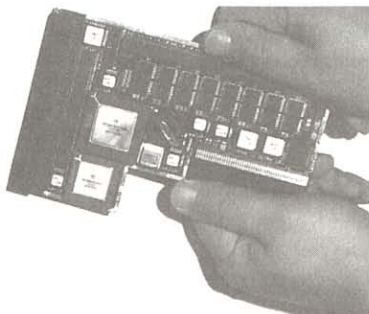
The BLIZZARD SCSI-KIT IV is plugged on to the BLIZZARD Turbo Board as is depicted in figure 4 to form a single unit.

Figure 5:

Bending the connection plug of the SCSI KIT before installation
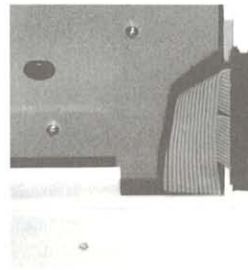
NOTE

☞ *Non-pollutant production methods might result in residues on the 100-pole contact rail of the BLIZZARD Turbo Board. Should you find such residue material, please clean the contact rail with alcohol or mechanically with an eraser. Never use gasoline, turpentine, contact spray or mechanical utensils such as e.g. emery paper, scrubbing sponges, or wire brushes.*

Then simply reinstall the BLIZZARD Turbo Board and connect it to the SCSI Kit. In order to do so, we recommend to bend the connection cable to the right as depic-
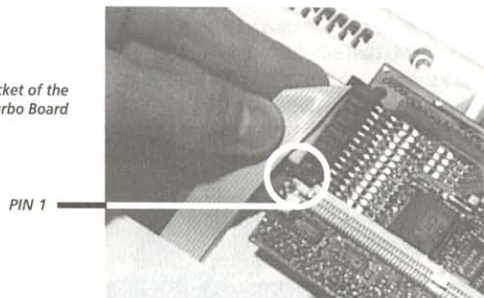

Figure 6:

Turning the BLIZZARD Turbo Board before installation
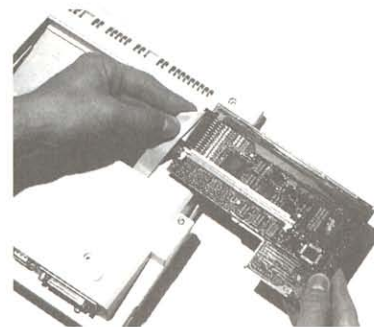
ted in Fig. 5. Now turn the BLIZZARD Turbo Board until the plugged-on BLIZZARD SCSI-KIT IV faces upward (Fig. 6).

Figure 7:

Plugging the connection socket of the SCSI Kit on the BLIZZARD Turbo Board

PIN 1 —

Now you may plug the cable to the 26-pole SCSI connection of the BLIZZARD SCSI-KIT IV. This connection is laterally angled; the plug must be inserted from the side (Fig. 7). Be sure that the plug is correctly inserted so that all connections have proper contact and the color coding (Pin 1) points to the SIMM base of the plugged-on BLIZZARD SCSI-KIT IV. Now turn the BLIZZARD Turbo Board as described in the instructions to allow re-installation into the AMIGA 1200's extension shaft (Fig. 8). If you have installed a SIMM module on the BLIZZARD SCSI-KIT IV, make sure the ribbon cable runs on the lower side of the SIMM.

Figure 8:

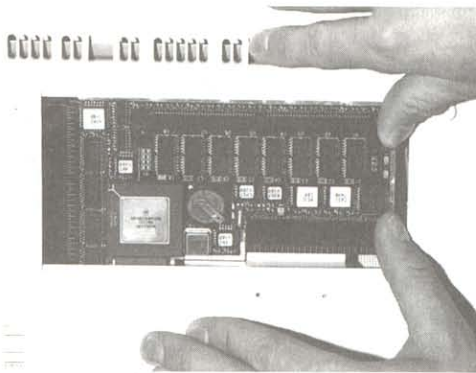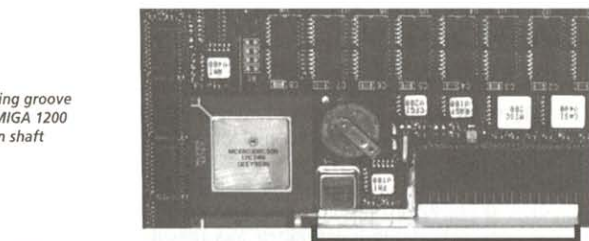*Inserting the BLIZZARD Turbo Board with plug-on SCSI Kit*

Figure 9:

The guiding groove in the AMIGA 1200 extension shaft

Guiding groove

When inserting the BLIZZARD Turbo Board, make sure the BLIZZARD Turbo Board is located above the guiding groove and the BLIZZARD SCSI-KIT IV is located below the guiding groove in the AMIGA 1200's extension shaft (Fig. 9).

In the final phase fasten the connection socket with the screw you previously removed. Tighten the screw carefully without applying excessive force. This completes installation.

You may now close the computer and reattach the external connections. Before connecting an SCSI-device to the SCSI-port of the BLIZZARD SCSI-KIT IV, we recommend to start the computer once to determine whether or not the device operates as before installing the SCSI-Kit. Should this not be the case, check if the BLIZZARD Turbo Board is properly attached to the AMIGA 1200's extension plug. If this is the case, do not engage in further experiments and instead contact our technical support service.

If the computer starts as usual, you may now commence operation of your SCSI-Controller. Some advice on connecting SCSI-devices may be found in the chapter „Connection of one or several SCSI-devices". Be sure to read the notes on the supplied software in the software chapter as well as the step-for-step instructions for connecting a fixed disk in the same chapter.

Using the additional SIMM-Socket on the BLIZZARD SCSI-KIT IV

The BLIZZARD SCSI-KIT IV allows expansion of the main memory to a maximum of 128 megabytes (up to 256 megabytes with installed 128 megabyte memory on the BLIZZARD Turbo Board). Incorporation of the additional memory is fully automatic. For using the SIMM-Base on the BLIZZARD SCSI-KIT IV, you will need a 32-bit SIMM usually sold as PS2-modules. You may use SIMMs with one or two component sides. The BLIZZARD SCSI-KIT IV accepts SIMMs with a memory capacity of 1MB, 2MB, 4MB, 8MB, 16MB, 32MB, 64MB, and 128MB. The SIMMs may feature 32-bit as well as 36-bit organization. The 36-bit SIMMs are used in IBM-compatible PCs which use the additional 4 bits as parity bits. These additional bits are ignored in the BLIZZARD SCSI-KIT IV. SIMMs with a speed of 70ns or more are required for operation on the BLIZZARD SCSI-KIT IV. In case two SIMMs have been installed, the RAMSPEED-Jumper on the BLIZZARD Turbo Board must be switched to 70ns! (Applies only to the BLIZZARD 1230-IV Turbo Board.)

Please note that a number of companies produce SIMM modules which do not comply with the speed stated on the label. Should you note occasional RAM errors, please also test the RAMs marked with 60ns in the 70ns jumper position (again also only applies to the BLIZZARD 1230-IV Turbo Board) before contacting our support service).

Especially SIMM modules featuring fantasy names such as LaserPrinterMemory or others are not suited as memory for computer systems. phase 5 digital products principally advises not to use these SIMM modules.

NOTE

☞ *When purchasing your SIMM modules, please make sure that these are not higher than 25mm (resp. 1 inch), as in other case the BLIZZARD SCSI-KIT IV cannot be installed in the AMIGA 1200!*

Installing SIMM Modules

Place the BLIZZARD SCSI-KIT IV on an even firm surface. Please note that sensitive surfaces might be scratched by the pins located on the lower side during inserti-

Abbildung 10:
Einsetzen
eines SIMMs

PIN 1
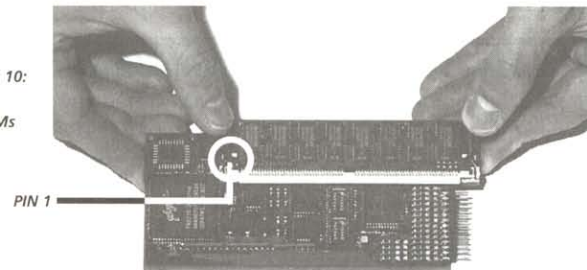
on of the memory module; we therefore recommend using newspapers, etc. as support. The memory SIMMs feature a recess on one side of the plug-in rail to avoid faulty insertion. This recess must be on the left side during insertion as depicted in figure 10. Insert the SIMM in an angle of approximately 40∞ into the base, the module may thus be inserted without any problems. Then you press the SIMM's two upper edges softly downward with your thumbs until it catches audibly. Make sure that the metal hooks to the right and left at the positioning holes both click in over the SIMM's board. Always remember that the SIMM should never be exposed to strong mechanical stress.

Connecting one or several SCSI-devices

You may connect external SCSI-devices to the 25-pole plug of the BLIZZARD SCSI-KIT IV with a normal SCSI-cable. Most external SCSI-devices feature 50-pole Centronics connections; consequently a cable with a 25-pole D-SUB plug on one side and the standard SCSI Centronics 50 plug on the other side may be used. Additional SCSI-devices may be connected via the first devices; usually cables with 50-pole connections on both sides are used between these devices. In any case, great importance must be attached to correct bus termination (see SCSI-Bus termination), as in other case problems with data transmission might occur.

During operation make sure that power supplies to the external devices are always activated before turning on the computer and are always deactivated after switching off the computer.

The SCSI-Bus

ATTENTION!

☞ *Only high-quality screened cables complying with the applicable standards (CE, FCC, etc.) are admissable for connection of external SCSI-devices! Contact your specialized retail dealer for purchasing such cables featuring the appropriate attenuation capacities. Please also note that external SCSI-devices must comply with the valid standards!*

SCSI-Bus-Termination

To warrant proper functioning of the SCSI-bus system, the SCSI-bus must feature proper electrical termination. You may always envision the SCSI-bus as a single cable which must feature a terminal resistor at each end. The individual devices are then directly connected to this cable. As a consequence, the terminal resistors may only be installed on the first and the last device. As the controller also is considered an device in this assembly, the terminal resistors are permanently installed on this controller (as it is located at the front end of the SCSI-bus). If you connect one or multiple devices via the external SCSI-connection of the controller, the last device must feature terminal resistors. As external devices usually feature two SCSI-connections in order to loop the SCSI-bus, and are connected to varying computers, the terminal resistors usually are not internally supplied. In this case use a terminal plug obtainable from your specialized retailer at the last device. This terminal plug (also called SCSI-Terminator) should always be plugged to the last SCSI-device resp. cable! (see fig. 11, following page)

ATTENTION!

☞ *Proper termination is required for faultless operation of the controller and connected devices. Faulty termination may result in data transmission errors, non-cognition of SCSI-devices, and in extreme cases may result in loss of data on storage media. Always assure that proper termination has been made.*

Adjusting the SCSI-ID of the connected devices

To differentiate between various devices connected to the SCSI-bus, the SCSI-devices feature a so-called SCSI-ID which has a rating of between 0 and 7. The BLIZZARD SCSI-KIT IV itself has the ID 7. As a consequence, up to seven SCSI-devices with the IDs 0-6 may be connected to a BLIZZARD SCSI-KIT IV.

In case several SCSI-devices are to be connected to the BLIZZARD SCSI-KIT IV, the SCSI-ID of these devices must be adjusted to assure that no two devices have an identical ID. The SCSI-ID in external SCSI-devices usually may be adjusted by the user with a little switch. Please refer to the documentation of the respective SCSI-device for this purpose.

ATTENTION!

☞ *If two devices with identical SCSI-ID are connected to the BLIZZARD SCSI-KIT IV, this might result in damages to one of the SCSI-devices. In any case, only one of these devices is identified by the BLIZZARD SCSI software. Vice versa, if for instance a new fixed disk is connected which is not identified by the BLIZZARD SCSI-software, this indicates that possibly an SCSI-ID is set at this fixed disk which has already been allocated to another device. This naturally also applies if the new fixed disk appears, but suddenly an device previously connected can no longer be addressed. In order to avoid two SCSI-devices with identical ID, you should use the BLIZZARD SCSI-software (e.g. the UnitControl program) to verify which SCSI-IDs have already been issued before connecting a new SCSI-device.*

NOTE

☞ *The sequence in which SCSI-IDs are issued principally may be selected at will i.e. SCSI-IDs neither must be issued in sequence nor is the selectable SCSI-ID dependent upon the device's position for example in a series of connected fixed disks. Nevertheless, we recommend to issue the first connected device the ID 0 and to issue devices connected at a later time the following IDs in ascending sequence as this may considerably reduce system starting time.*

Connection of RDB-formatted SCSI-Disks

If you connect a fixed disk (or any other SCSI-device) to the BLIZZARD SCSI-KIT IV, which previously was operated at a SCSI-Controller in the AMIGA and has already been formatted with the RDB (Rigid Disk Block) to AMIGA standards, this device may immediately be put into operation.

After starting the computer, the partitions in this fixed disk must be automatically detected and, if so required, must be able to boot. If this is not the case, contact your retail dealer or our support service before you take any further measures. Please read the annotations on adjustment of mask and MaxTransfer-values in the software chapter (specifically descriptions of SCSIConfig and CheckMask).
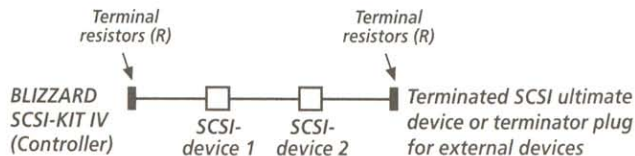
ATTENTION!

☞ *In case you wish to connect fixed disks you already have in operation at another controller and which have data stored, we urgently advise you to generate a security backup of the fixed disk BEFORE detachment from the old system. Each new connection of a fixed disk already in operation bears a - even if ever so slight - risk of data loss due to installation or operation errors. If a backup on disks would take too much time due to extensive data amount, ask your retailer to perform such a backup (e.g. on a streamer) and new installation or lease a streamer (possibly against payment of a small fee). We cannot assume any warranty whatsoever for data loss on fixed disks or SCSI-devices already used before connection to the BLIZZARD SCSI-KIT IV.*
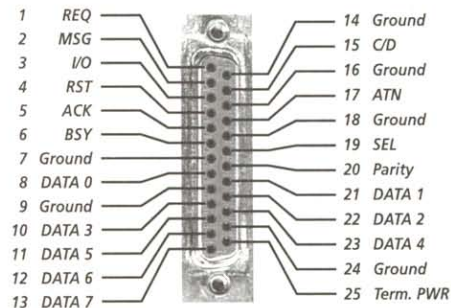
Figure 11:

Example of an SCSI-device chain with properly set terminal resistors
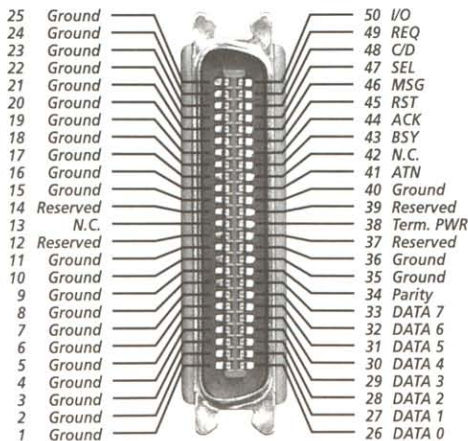

Terminal resistors (R)   Terminal resistors (R)

BLIZZARD SCSI-KIT IV (Controller)   SCSI-device 1   SCSI-device 2   Terminated SCSI ultimate device or terminator plug for external devices

SCSI-bus pin assignment

External SCSI-socket at the BLIZZARD SCSI-KIT IV (D-SUB 25-pole)

1 REQ	14 Ground
2 MSG	15 C/D
3 I/O	16 Ground
4 RST	17 ATN
5 ACK	18 Ground
6 BSY	19 SEL
7 Ground	20 Parity
8 DATA 0	21 DATA 1
9 Ground	22 DATA 2
10 DATA 3	23 DATA 4
11 DATA 5	24 Ground
12 DATA 6	25 Term. PWR
13 DATA 7	

Connection cable assignment (Centronics 50-pole)

25 Ground	50 I/O
24 Ground	49 REQ
23 Ground	48 C/D
22 Ground	47 SEL
21 Ground	46 MSG
20 Ground	45 RST
19 Ground	44 ACK
18 Ground	43 BSY
17 Ground	42 N.C.
16 Ground	41 ATN
15 Ground	40 Ground
14 Reserved	39 Reserved
13 N.C.	38 Term. PWR
12 Reserved	37 Reserved
11 Ground	36 Ground
10 Ground	35 Ground
9 Ground	34 Parity
8 Ground	33 DATA 7
7 Ground	32 DATA 6
6 Ground	31 DATA 5
5 Ground	30 DATA 4
4 Ground	29 DATA 3
3 Ground	28 DATA 2
2 Ground	27 DATA 1
1 Ground	26 DATA 0

2. The SCSI-Software

This chapter describes installation of the software supplied with the BLIZZARD SCSI-KIT IV on the disk included in the scope of delivery.

The installation program on the disk enables the user to install the required software. This program is structured into the sectors installation and configuration of the supplied CD ROM Filesystems.

In order to install the software, insert the disk and follow the instructions of the installation program on the disk.

Software documentation is stored on the disk and is automatically installed during setup. After the installation you will find the documentation as a *README* file.

ADVICE

For programs that require the device name, you have to enter *1230scsi.device*. Note that for some applications you may need to include the device name in quotation marks.

3. Terms of Warranty

phase 5 digital products furnishes a 12-months warranty on components and finish of this BLIZZARD SCSI-KIT IV beginning with the date of initial sale (the date on the retailer's invoice to the registered ultimate client). Within this warranty period, we will remove all defects based upon material or production faults at our discretion by exchange or repair. The provision of warranty performances in no way affects the warranty period. In respect to the supplied software (DynamiCache/CDrive), this warranty exclusively relates to the data carrier (disk).

Warranty performances for damages or malfunctioning based upon external influences or improper utilization, specifically also unauthorized repair, are excluded. Alterations to the hardware, irrespective of which nature, automatically will terminate any warranty claims. Also excluded are warranty performances for erroneous functions or malfunctioning in the BLIZZARD SCSI-KIT IV, in other devices in the AMIGA/connected to the AMIGA or in the AMIGA itself which occur after installation of the BLIZZARD SCSI-KIT IV or later alterations of the system (such as e.g. installation of new extensions) insofar as it cannot be proven beyond any doubt that a technical defect of the BLIZZARD SCSI-KIT IV is the cause of the erroneous function or malfunction. Alterations to the hardware and/or software of the AMIGA, which are performed by AMIGA Technologies company in form of repairs, rework or system updates, are expressly included.

phase 5 digital products in no way guarantees that this product is suited for a specific application. We also assume no liability whatsoever for defects or damages to devices other than the BLIZZARD SCSI-KIT IV as well as expressly for loss of data which is directly or indirectly in context with the utilization of the BLIZZARD SCSI-KIT IV or the supplied software (DynamiCache/CDrive) or appears to be in such context even if we previously were informed of the possibility of such context. The terms of warranty of the respective producer are exclusively applicable to supplied fixed disks or other SCSI-devices.

In any case please mail your register card and include the *date of purchase and serial number* of the BLIZZARD SCSI-KIT IV to facilitate warranty processing or solution of problems in case these should occur.

4. 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:

☞ **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.

5. 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) 61 71 62 84 55
> *Telefax:* +49 (0) 61 71 62 84 56

In all other countries, please contact our distributors or your retail dealer directly for any guarantee issues. Please note that returns will only be accepted following *previous* agreement and authorization by our support. The support service will issue you a RMA number which must visibly be marked on the return shipment. *Please note that return shipments without RMA number will not be processed. Unpaid mailings will also not be accepted.*

In case no defect may be determined in authorized returns, a processing lump-sum of DM 50 (effective July 1995) will be charged. In case a defect not covered by the warranty is determined, the processing lump-sum and, additionally in case of repair, a repair fee dependent upon the defect will be charged.

We are not liable for shipment damages caused by packaging inadequate for mailing of devices. When mailing a BLIZZARD SCSI-KIT IV, always use the original packaging as well as an additional sturdy container (e.g. mailing box) and if so required bolstering material (e.g. decomposable filling material).

www.a1k.org