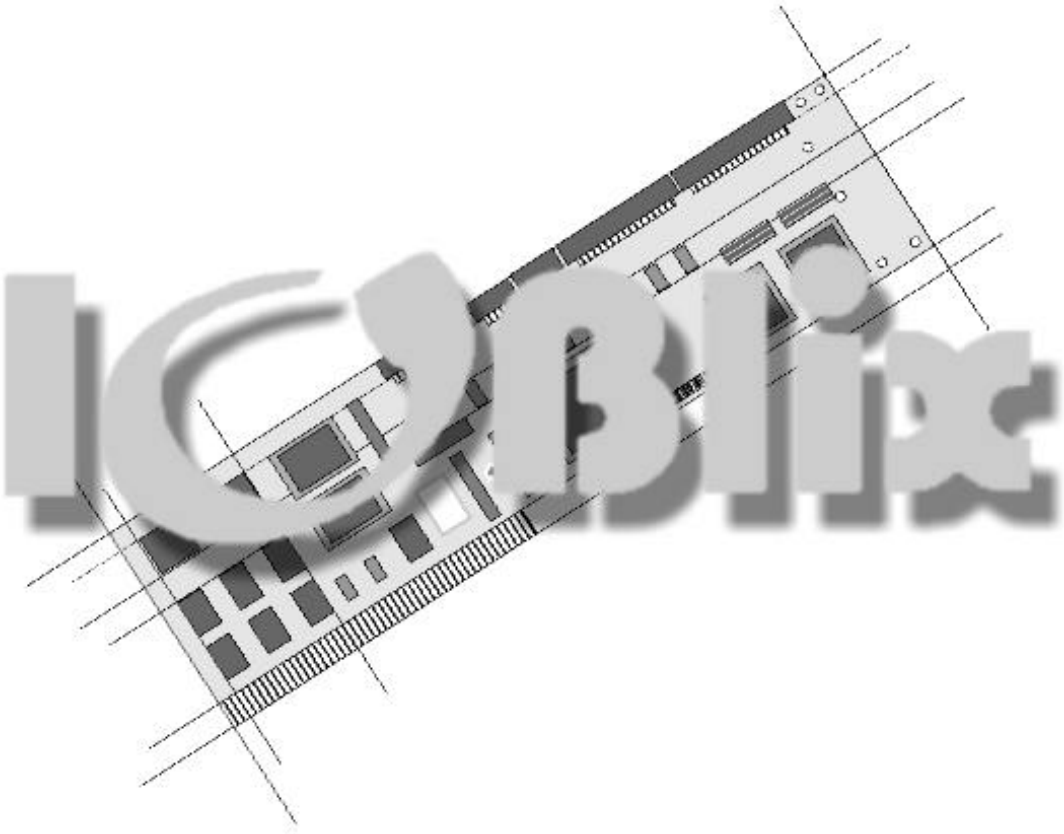

Version 1.3

deutsch / **englisch**

Introduction

Thank you very much for purchasing the IOBlix . Developing the IOBlix (pronounced: I-O-B-lix) we match value with high compatibility. Being an interface card the IOBlix is the connection between the Amiga and the peripheral devices. This means

- Compatibility with all Amigas (A2/3/4000, A500/1200 in a Tower)
- High compatibility with all peripheral devices
- High compatibility with all common software that uses the ports

When using the IOBlix please remember that there are programs which address the Amiga Parralel & Serial ports at a low level to use the special features of the internal Amiga ports. Programs like these are non system conforming and cannot operate with the IOBlix.
If you have any further questions which are not explained in this manual or in the manuals on the install disk feel free to contact our service hotline: Mo.-Do. 5.00-6.00 p.m. at +49 5651 8097 21. Software Updates for the IOBlix will be available on our web site at http://www.rbm.de. Our E-Mail is support@rbm.de.

Electromagnetic compatibility (EMC) / CE

Electromagnetic compliance is supposed to guarantee the „compatibility“ of different electronic devices. This means that your computer must not interfere with your neighbours radio. Transferring your Amiga into a tower case is not clearly defined according to the EMC. For example older ZorroII-Cards do not have the CE-sign so they were never checked for EMC. Anyway does the combination of products with a CE-sign not imply the EMC of the whole product.
We emphasize that inplacing your Computer into a regardless new case and adding any components, you become the manufacturer/producer of this system under the law of EMC. So you are also responsible for the electromagnetic compatibility of your system!

ESD-Warning

- Electronic devices are sensitive to becoming charged. Do not wear wool clothing and don't work in a room where you can easily be electrostatically charged .
- Electronic devices are sensitive to mechanic strains. Don't use force if something does not fit at once. There's nothing better than being careful.
- Whatever you do, do it with calmness and coolness. Being in a rush is the beginning of all mistakes!

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The producer rbm digitaltechnik Bernd Rudolf is not responsible for mediate or immediate damages caused by improper use of this product.
Any liability for damages that may be caused by insuficciencies and/or mistakes of the manual can only be accepted if a rough carelessness of the producer or it’s employees can be proved.

Content of delivery

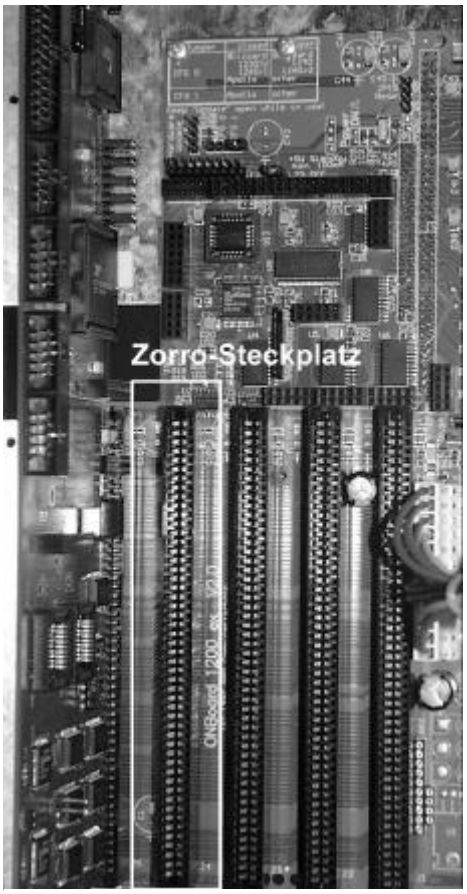
IOBlix 1.3 with

0-4	serial ports
0-4	serial-connection cable 9 pol. with slot bracket
0-2	parallel ports
0-2	parallel-connection cable 25 pol. with slot bracket
1	slot bracket with 9pol./25pol. outlet
1	Installation disc

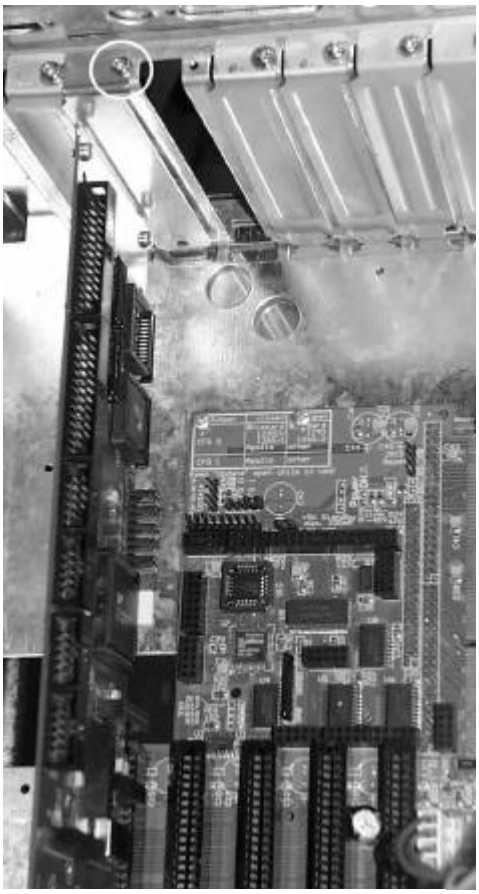
Tools required for mounting: Phillips screwdriver

Hardware Installation

Before you start you should disconnect all cables from your Amiga. Please note the ESD-Warning in the Introduction! Open your Amiga: For almost all Amigas in a desktop case you have to loosen some screws at the back of the case. If you are in doubt you will find detailed information in your Amiga or Tower manual. If you run into extraordinay difficulties while opening you Amiga we recommend to ask your local dealer to install the IOBlix.
With some desktop cases the front is attached to the cover so that you have to slide off the cover to the front (e.g. A2000). with others the cover has to be taken off to the back (A4000).



Picture 1



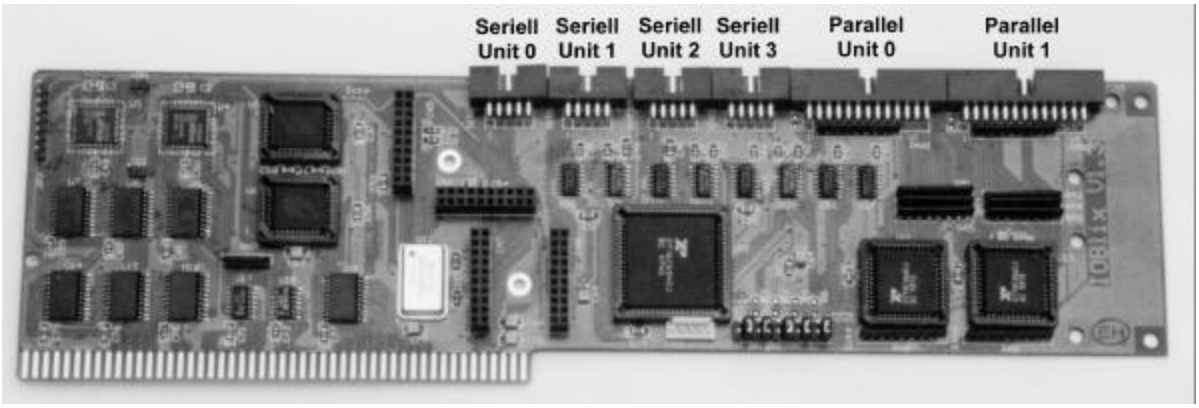
Picture 2

Attention: If your Amiga is mounted into a tower we assume that you have put the open tower on its right side (from the front view). Usually the Zorro-slots run the depth of your Amiga each being beside each other.

If your Amiga is open you will immediately be able to locate the Zorro-slots. With some Amigas they are arranged on the motherboard horizontally (A2000), with others they are arranged vertically (A3000/A4000) on an extra daughterboard (slot board). Picture 1 shows a Zorro-slot (100 pins, 50 on each side).
At the back of the case you will find the so "slot bracket holder" with an outlet for each Zorro-slot. It is usually closed with a cover which is fixed with a screw at the top (Picture 2)

Choose a slot in which to install the IOBlix. We recommend you fill the slots one after each other (relative to the processor: from the right to the left in the A2000 and from bottom to top in the A3000/A4000). Remove the slot cover for the slot and insert the IOBlix into the Zorro slot by pressing down. The IOBlix fits correctly when all of the golden slot pads are almost hidden in the slot.
Attention: Switching your Amiga on can damage your IOBlix and even the mainboard if the IOBlix is not installed correctly.
Secure the IOBlix with the screw to the slot brackt holder.

Finally you have to mount the connectors which attach to IOBlix. The correct direction is guaranteed by a notch on the connector. You can find the numbers of the ports in picture 3.



Picture 3

Now you can place the connectors in some free places in the slot bracket holder. The huge number of IOBlix ports can make this difficult. We recommend to only install the required ports. To reduce the number of required slot places an extra bracket with a 9 pin (serial) and a 25 pin (parallel) outlet is included. You just have to loosen the two hexagonal screws on each connector...

In some (tower-) cases there are extra outlets for connectors which are closed with a thin metal plate. You can remove the plate by bending it back and forth several times...

Why? You will probably ask why there are no outlets for connectors on the IOBlix bracket itself: The answer is very easy: connectors mounted here would intefer with the components on the IOBlix an furthermore this place is reserved for the outlets of the module ports on the IOBlix (sound, ethernet).

Software Installation

Start your Amiga to the Workbench-Screen. Insert the IOBlix install disk into a disk drive. After a few seconds an icon named "IOBlix-Install" appears. Double click it. A window opens, in it you will find an icon named "Install-IOBlix". Double click this icon and the installer starts: If you are less familiar with your system we recommend to choose "Novice user" The install procedure will then run automatically.

Connecting Peripheral Devices

When connecting peripheral devices make sure that you use the correct (external) cable which suits the requirements. Often cables have the correct connectors but they are connected in a different way. If you need a serial cable for example make sure it is labeled "serial" and "1:1" somewhere. Cables named "Null modem" are only to link two serial ports (of two computers) together. Sometimes serial ports use a 25 pin connector. Therefore special adaptors are available. Contact your local dealer for more information.
In the addendum you will find the port connections and some schematics for null modem cables.
Please do not exceed the maximum cable length: For the parallel port it is 4m (13 ft) and for the serial ports 10m (30 ft). The quality of the cable is also very important. That means: a cable with a good shielding can transport data over a longer distance than the recommended while a cheap non shielded cable will probably not be able to run the cable length mentioned above.
The serial data transfer-rate possible relates directly with the cable length and quality!

The IrDA-Interface

The IOBlix provides an IrDA port which allows a wireless data transfer via infra red between different computers or the computer and peripheral devices (such as printers etc). To use this an extra infra red send/receive Adaptor and some sepecial software is required which will be available soon. You will find news about that at http://www.rbm.de

The IOBlix Software

You can install up to five (5!) IOBlix into one Amiga. They can be addressed with different parameters (see below). Normally ("Novice user installation") you will find a drawer called "IOBlix" on your workbench partition. Here the programms "SetupIOBlix" and "QueryIOBlix" are located.

SetupIOBlix

initializes all IOBlix boards in the system and is normally executed during "user-startup". If you want to reinitialize the boards again you can run this programm from a shell with the command "Setup-IOBlix reinit" (no quotation followed by return)

QueryIOBlix

checks all IOBlix boards in your system. First the boards are checked (if you have only installed one parallel port you will see some report requesters) and after that the test result is displayed with the programm "more". For a board with four serial ports, one parallel port and no external FIFOs the result should look like this:

```
There are 1 IOBlix boards installed in your machine

Board 1 is located at address 0x00e90000

  serial port #0:
    Chip: StarTech 16C654 with 64 bytes FIFO
  serial port #1:
    Chip: StarTech 16C654 with 64 bytes FIFO
  serial port #2:
    Chip: StarTech 16C654 with 64 bytes FIFO
  serial port #3:
    Chip: StarTech 16C654 with 64 bytes FIFO
```

```
  parallel port #0
    supported modes: SPP PS2 ECP EPP ECP/EPP ECP/PS2
    FIFO size: 16 bytes (8/8 write/read threshold)
  parallel port #1 is either not installed or it is out of order!!

  no external FIFOs installed!

  Testing serial port #0... passed
  Testing serial port #1... passed
  Testing serial port #2... passed
  Testing serial port #3... passed
  Testing parallel port #0... passed
Couldn't open ioblixpar.device/1!
  Testing parallel port #1...   parallel port #1 is either not installed or
it is out of order!!
```

The Devices

In the DEVS: drawer of your Workbench there are the following devices devices:

- ioblixser.device
- ioblixpar.device
- ioblixepp.device

If you like to use a terminal programm (like Ncomm, Term) to address a modem you will find a menu in the terminal programm like "settings/port" where you can specify a device. This must be the "ioblixser.device" (no quotation, small letters). Additionally you will be asked for a "unit". The unit numbers of the different ports are explained in picture 3.
If you have installed more than one IOBlix the unit numbers are the following:
- IOBlix1: Unit 0, 1, 2, 3
- IOBlix2: Unit 10, 11, 12, 13
- IOBlix 3, Unit 20, 21, 22, 23
- ... Unit-Nr=[Board/Port]

For the serial ports there are four units on each IOBlix, for the parallel port there are one or two depending on the IOBlix equipment! The IOBlix board number starts with zero beginning with the board closest to the processor. (A3000/A4000 from bottom to top and otherwise from right to left. ATTENTION: In some A3000 the board might be counted from top to bottom!)
The maximum transfer rate allowed by the serial device is 460kbps. Please read the section about cable length and quality in the chapter "Connection peripheral devices".

The Handlers

Like for the internal Amiga ports there is a handler for the IOBlix ports. With this handler you can address each port like a drive (DOS driver). So you can print the user-startup for example with "copy s:user-startup par00:" (no quotation followed by a return from a shell; assumed there is a printer connected to IOBlix board0/parallelport0).
The active dos drivers are located in the drawer DEVS:DOSDRIVERS, the others in the drawer SYS:STORAGE/DOSDRIVERS. Their names are:

- "SER00:" for the dos driver for the serial port 0 on IOBlix board number 0
- "SER01:" for the dos driver for the serial port 0 on IOBlix board number 0
- ...
- "PAR00:" for the dos driver for the parallel port 0 on IOBlix board number 0
- "PAR01:" for the dos driver for the parallel port 0 on IOBlix board number 0

If you have installed more than one IOBlix you can create the other DOS drivers by just copying one driver and rename it for example into "PAR10" for IOBlix board 1 parallel port 0. Then you open the new dosdrive with an editor. For example from a shell with

ED DEVS:DOSDRIVERS/PAR10

and change the line

Startup = „device=ioblixXXX.device unit=XX“

according to the device and unit you want to address: (for PAR10 it is: device=ioblixpar.device unit=10).

Goodies

There are some additions programms in the "goodies" drawer of the installation disk which we provided for free. Please note that we cannot support these programms!

SerMouse

SerMouse allows you to run a PC-mouse on the Amiga. A manual is provided on disk as well.

NSDPatch

NSDPatch allows you to redirect the devices for the internal Amiga ports (serial.device, parallel.device) to the IOBlix ports. This is only necessary when some software does not support a configuration for the device.
A manual for NSDPatch is provided on the disk.

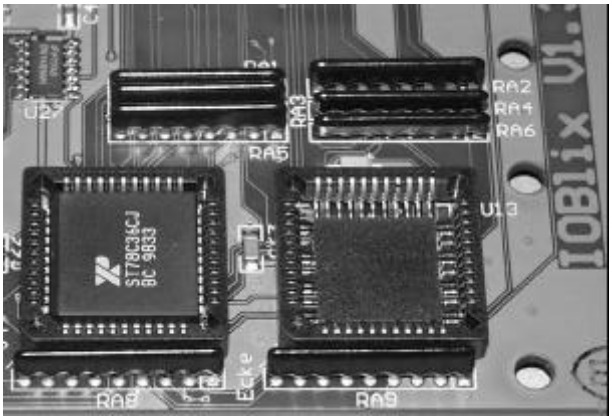
To map a device to another you must add the following line to the DEVS:NSDPatch.cfg (anywhere, best at the beginning or end)

DEVICE parallel.device UNIT 0 MAPTODEVICE ioblixpar.device MAPTOUNIT 1

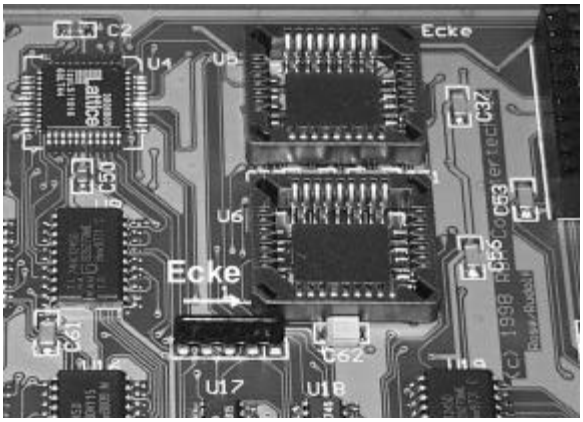
This maps the internal parallel port to port 1 of the IOBlix

Upgrade

You can upgrade the IOBlix with a second parallel port and additional FIFOs. ONLY USE THE ORIGINAL EXPANSIONs for upgrading the IOBlix. Otherwise you will loose any guarantee!

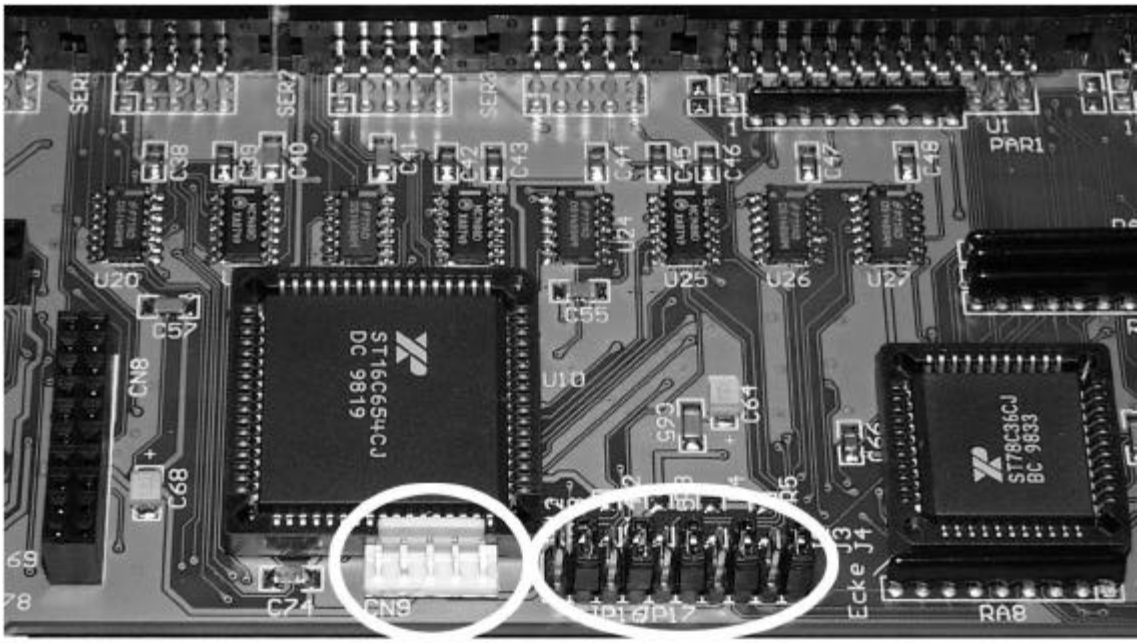


Picture 4



Picture 5

Insert Chips: Please read the ESD-Warning in the introduction first! The chips have a flat corner. Position the chips that the flat corner of the chip meets the flat corner of the socket. Picture 4 shows the parallel port, picture 5 the FIFOs. Put the chip flat onto the socket and press it in with both of your thumbs continuously. The upper edge of the chip should not be much higher than the upper edge of the socket...



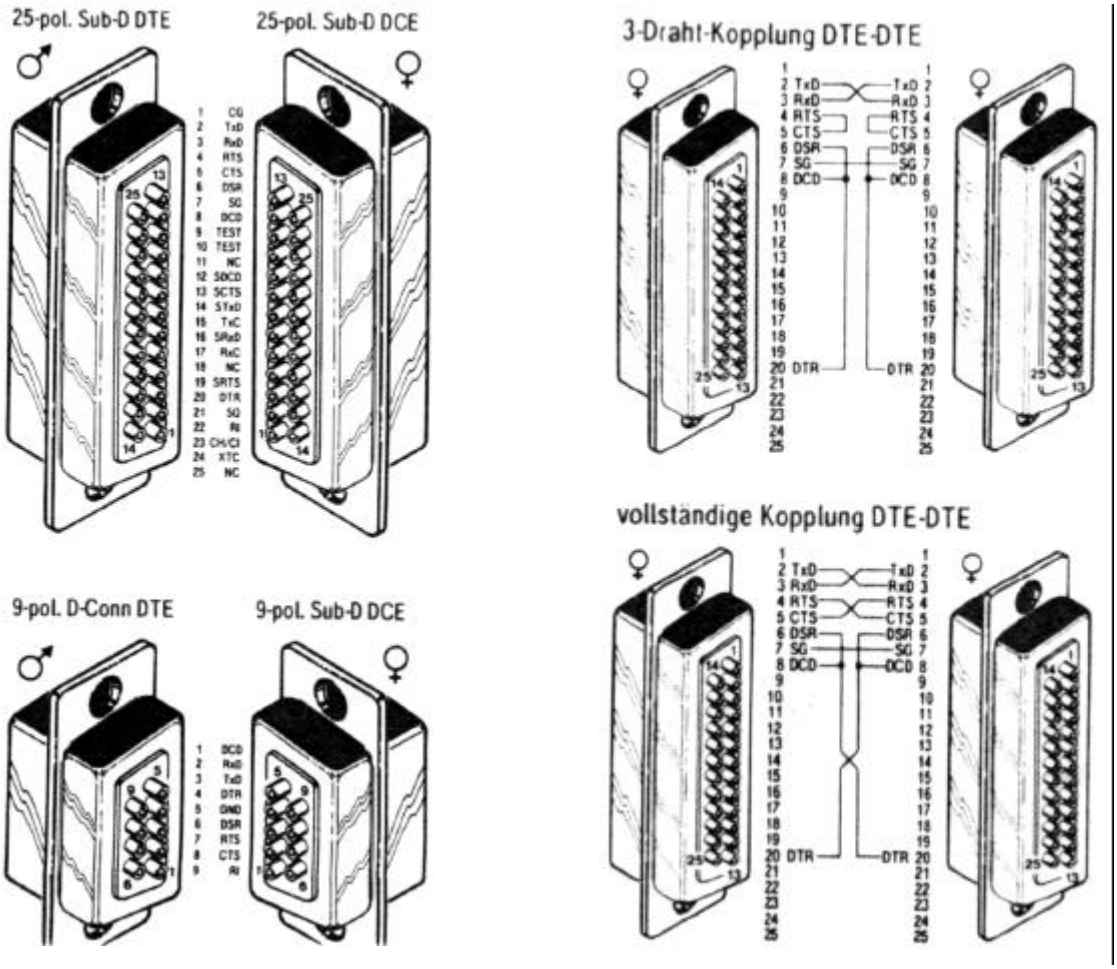
The Jumpers on the IOBlix are for special purposes only! The corresponding Jumpers are listed below.
Important: Never set both of a pair of jumpers!
To put +5V on a port with a Jumper you have to put a 1 Ohm resistor on the corresponding pads behind the pair of jumpers.
For more developers information feel free to contact RBM at +49 5251 16191-9

Corresponding Jumpers	
J1/**J2**	J2=Autofeed on Pin 14 of Parallel Port 0 J1=+5V on Pin 14 of Parallel Port 0 (R5)
J3/**J4**	J4=Autofeed on Pin 14 of Parallel Port 1 J3=+5V on Pin 14 of Parallel Port 1 (R4)
Use only with 9 to 25 Adaptor	
JP7/**JP15**	JP15=DTR on Pin 20 of Serial Port 3 JP7= +5V on Pin 20 of Serial Port 3 (R3)
JP6/**JP14**	JP14=DTR on Pin 20 of Serial Port 4 JP6= +5V on Pin 20 of Serial Port 3 (R2)
JP12/**JP13**	JP13=Serial Port #1 activated JP12=IrDA activated

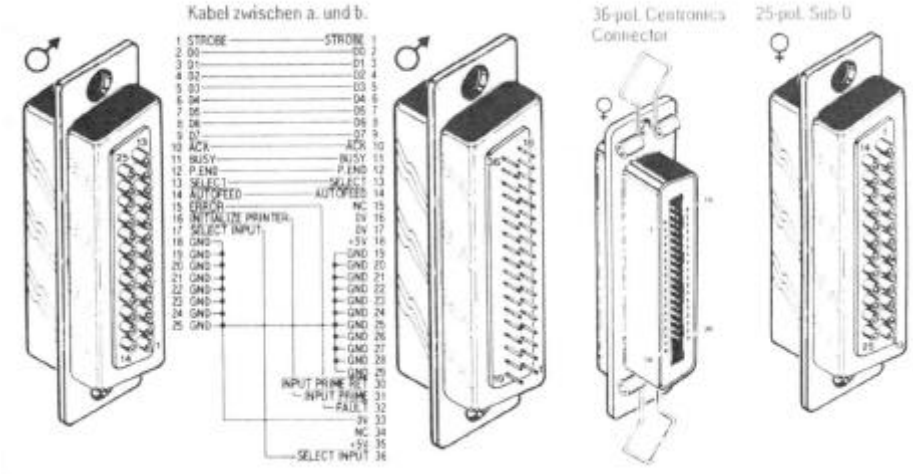
Hardware

This chapter is for professional users only! It describes the IOBlix port, several connection cable and other features of the IOBlix ports.

The serial port



On the left hand side you see the pinning of the 9 and 25 pol connectors. On the right hand side you can see two different null modem connections where the "vollständige Kopplung DTE-DTE" should be preferred.



Warrentee and technical support

On this IOBlix RBM Digitaltechnik provides a 6 months guarantee starting with the date of the first sales (date of the retailers bill). During this guarantee period, RBM will repair all defectives which are due to material or production faults at our free choice either by repair or exchange. Repairs made under warrentee will not affect the length of the warrentee period.
Excluded from the guarantee are damages and malfunctions which have been caused by external interference or inproper usage especially unauthorized repair or inexperted installation.
Also excluded from the guarantee are malfunctions or function disturbance on the IOBlix, on other devices installed in/on the Amiga or on the Amiga itself which occur after the installation of the IOBlix or later modifications of the system as far as it cannot be doubtlessly proven that a technical defect of the IOBlix is the cause of the malfunction or function disturbance.
RBM Digitaltechnik does not guarantee that this product is suited for a certain application. Also we do not take over any liability for defects or damages on other devices than the IOBlix, as well as expressively not for the loss of data which are or seem to be in direct or indirect connection with the usage of the IOBlix even if RBM has been informed about the possibility of such a connection in advance.

Guarantee handling

Service-Hotline:
Before you contact our service hotline please read this manual carefully. You may find additional information on our web site (www.rbm.de)
If you have further questions about the IOBlix, contact you local dealer or e-mail to support@rbm.de. Our service hotline is open Mo-Thu. 5.00-6.00 p.m. (+49 5651-8097-21). Please make sure your system is right beside you when you call to be able to check immediately on questions we have!

Returns: (within Germany only)
We can only accept returns with a valid RMA number which you can get from our service hotline. Please note this number in big letters on the package. Please include a complete description of the malfunction and your telephone number if we have further questions.

Ship to: RBM Digitaltechnik Bernd Rudolf
Goldbachstr. 49
37269 Eschwege

In all other Countries please contact your local dealer or distributor!

If we cannot detect any defectives on returned components we have to charge a fee of DM 50,- for testing and handling. For defectives not covered by guarantee we charge repair cost depending on the defectives.

For transport damages caused by unsuitable packaging no liability can be taken over.

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