

ACA620EC short manual

the economy class accelerator

Dear customer,

thank you for purchasing a product from Individual Computers. We're sure that your new accelerator will satisfy all your needs. However, we would like to emphasize that installing the product in an Amiga 600 is not easy and it requires some skills. Please make sure that you have enough light at your desk and take appropriate anti-static precautions.

Installing the accelerator should only be done by experienced persons. If you have never opened your A600 before, you should get some help from a technician.

Package contents, unpacking:

In addition to this manual, you will find the accelerator in a plastic bag in the box. Due to our new PLCC socket technology, further mounting material is not required. Although the card has jumper headers, we do not include jumpers with the card.

If you have purchased a heat sink with your accelerator, please consult the manual of that component for mounting instructions.

The ACA620EC is delicate equipment, please handle it with extreme caution.

Preparing the computer

The ACA620EC will not fit inside your A600 with the harddrive cradle installed. A mechanical harddrive is noisy, consumes a lot of power and produces a lot of heat inside of your computer, so we recommend to use a CF card, an IDE-flash module or SSD as a replacement. This will lower the load on your power supply, and it will let you remove the harddrive cradle.

Installation

Open the computer and remove the harddrive cradle, the keyboard and the upper RF shield (if your computer is equipped with one). Place the A600 motherboard in front of you with the mouse/joystick connectors facing right and the monitor/power connectors facing away from you. The accelerator is installed on the 68000-processor (position U1). Position the ACA620EC with the components facing down and the brown PLCC socket to the lower-left side over the 68000 processor of the A600. In that orientation, the jumpers of the card will face to the left, towards the PCMCIA port of your computer.

The computer must be placed on a stable, level surface. First, place the socket over the processor, but do not push yet! Double-check that all pins line up properly. If the socket should be tilted in any way, it might be destroyed by the pressure that must be applied. The socket is in place if the board is level on the processor, but cannot be rotated any more.

Your final step is to push the socket on the processor. You might need to push very hard, but **do not use any tools for this step!** It is possible to apply the required pressure with your thumbs. You should feel the socket clicking on the chip. The computer is now ready for the first test.

If your computer starts properly, you can continue by putting everything back together. Should your computer not start properly, the most probable cause is contact problems. In this case, please clean the pins around the 68000 processor with pure alcohol and an old toothbrush. **Never use contact-spays for this task!**

Jumper "disable"

The disable-Jumper will disable the card completely. If the jumper is open, the fast CPU and memory will be active. If the jumper is closed, the whole card is disabled, and your computer is back in it's original state. This will also reduce the NMI connector to a Level-7 IRQ, but the freezer-

logic of the ACA620EC will not be active (see further down).

If you want to connect a switch to the "disable" jumper, please mind that it may not be switched while the computer is running.

The disable-Jumper may only be changed when the computer is switched off!

Memory

The ACA620EC will come up with 5MBytes of fast memory auto-configured. 1MByte is located at \$c0.0000, which will increase compatibility to older, A500-based software. Another 4MBytes are added to the free memory pool using autoconfig. If you want to make use of all the memory that the ACA620EC offers, please use the ACA tune tool, version 1.7 or higher. This will let you use up to 11.3MBytes of memory for any software.

The fast memory of the ACA620EC can only be used with the 68EC020 processor. It is not available in plain 68000 mode.

PCMCIA compatibility

The PCMCIA port can be used together with your ACA620EC. However, S-Ram cards can not be used. Since PCMCIA is a 16-bit bus and the ACA620EC is a full 32-bit accelerator, a PCMCIA S-Ram card would slow down the computer considerably. Networking cards and other peripherals are fully compatible with your ACA620EC, and they will not slow down operations of your accelerator.

NMI-connector

The NMI-connector is located right next to the disable-jumper. Although the connector looks exactly like a jumper, **you must not place a jumper there!** The connector is meant for a pushbutton (available separately) that will launch a special freezer tool. This tool is third-party software that is not provided by individual Computers. Please note that pushing the button without prior initialization will make your computer crash. If you want to test proper function of the button, you can initialize the ACA620EC freezer logic using the ACA tune tool version 1.7 or higher: Call ACA tune from a shell with the `aca620nmi` parameter. This will install a small routine that catches the press of the NMI button, flashes the background colour and continue executing the currently running program.

Please note that the NMI-button can also be used if the card is disabled. However, the previously described freezer-functionality will not be available in plain 68000 mode. Function of the button will then be reduced to a level-7 IRQ.

ACA tune software

Please download the ACA tune tool from our website www.icomp.de to make use of the full potential of the card. This lets you activate the MapROM option and optimize the overall performance of the system. Please also read the full manual that's included in the download-archive of the ACA tune tool.

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