

EAGLE

A4001T

Tower Case System



INSTRUCTION MANUAL

WARNING - WARNING - WARNING

**BY NOT READING ALL THESE
INSTRUCTIONS FIRST YOU
COULD DAMAGE YOUR COMPUTER
THIS TOWER OR BOTH !!**

READ THESE INSTRUCTIONS !!

EAGLE A4001 TOWER

ASSEMBLY AND INSTALLATION INSTRUCTIONS

We would like to congratulate you on purchasing this towercase that was specially designed for the Amiga 4000, the Video Toaster / Flyer and Opalvision. It converts the hard to expand Amiga 4000 into a professional system offering lots of space for expansion. The custom daughterboard features 8 Zorro II / Zorro III - Slots, (16 / 32-Bit, 1 is for power only) as well as 5 PC/AT- and 2 separated switchable video-slots. (You need only "switch" the video slots if you have 2 genlockable video cards, ie. Opalvision with the video processor board or Impactvision).

The case also offers six 5.25" drive bays which are all accessible from outside, and four 3.5" bays 2-front accessible and 2-inside accessible. If you have an older Commodore 3.5 inch floppy drive with a front height of 1.5", it is mounted in the 5.25" drive bay with a custom plastic mounting frame. (Not-included) Contact Eagle for purchasing this mounting frame.

DISASSEMBLING THE AMIGA 4000

Remove the 2 screws at the back of the case and slide the lid off. If there is a hard disk or any other cards inside, remove them.

Please treat the hard disk very carefully as it is very sensitive to mechanical shocks. When removing the hard disk, take note of the polarity of the ribbon cable.

The beam over the C= daughterboard with the slots for expansion cards is fixed with 2 screws and is removed next, then you pull up and out the C= daughterboard.

Unplug the power supply from the motherboard and the floppy drive as well as it's ribbon cable. (noting polarity) and the LED-plugs (Key, Power, Disk).

Now remove the front assembly by squeezing together then pushing out the 7 plastic hooks.

Then remove the power-switch-extension pushing rod. Unscrew and take out the 3.5" / 5.25" drive cage and remove the drive(s) from it.

Carefully pull out the CPU-accelerator board from the motherboard. (straight out, do not twist, it should take a small amount of force to dislodge the plastic mounting pins from the accelerator but, it should come out relatively easily.) Keep the plastic pieces as they are used again.

(NOTE: There is no need to remove the old Commodore Power Supply. The tower comes with a larger power supply.)

Then take off the expansion-card holding bracket from the back wall (1 screw), remove the 2 hexagonal screws of the Sub-D type SERIAL port. For this you need a 5 mm nut driver (or pliers). The other hexagonal screws on the back of the motherboard are NOT removed.

Remove the 9 screws that hold the motherboard and take the motherboard carefully out of the case.

Screws are provided to re-install the motherboard into the tower.

The protective plastic sheet underneath the motherboard, the expansion hole cover plate and the power cord are used again in the Eagle tower case.

ASSEMBLY INTO THE TOWER

First remove the 6 screws at the back of the case and then take off the lid moving it back and up. The tower frame should then be laid sideways onto a table. (free from static of course, on an anti static mat if available)

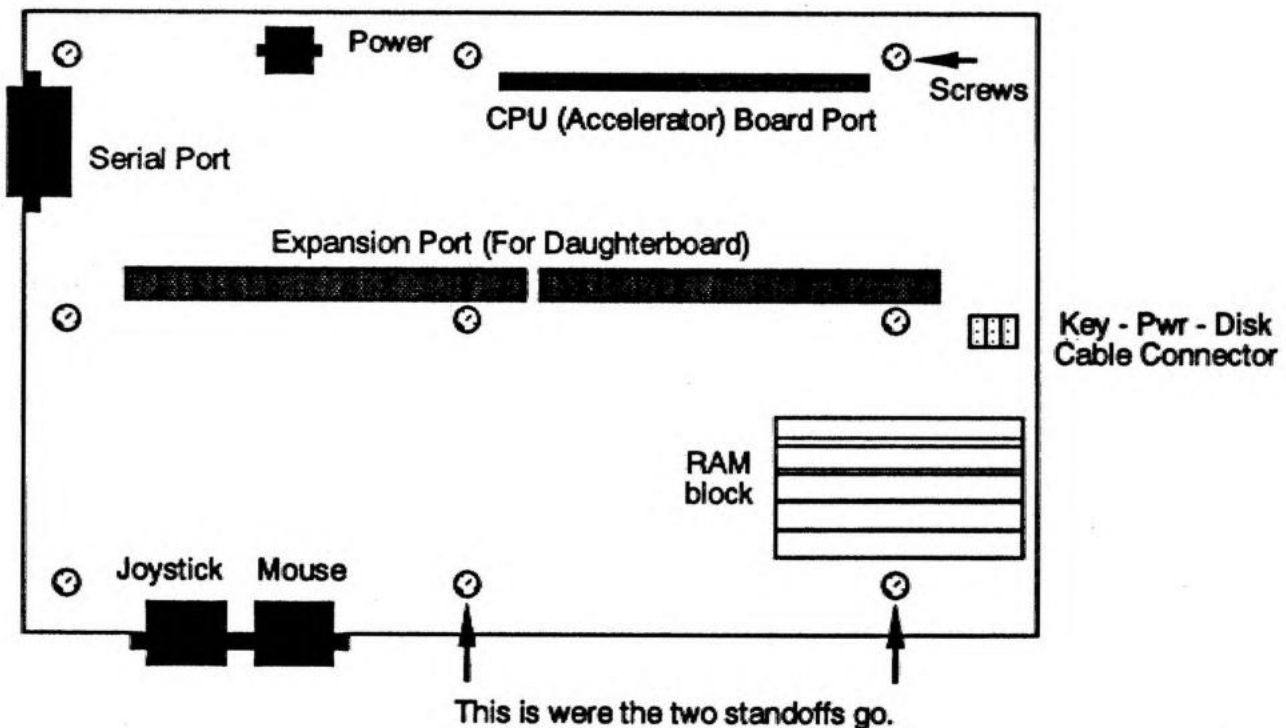
Take out the 3.5" drive cage (1 screw) and remove the antistatic bag containing the daughterboard. There is a bag taped to the daughterboard bag that contains your

key, 8-Black plastic card guides, and 4 screws to mount the foot (BASE) to the bottom of the tower case.

Remove the screws from the standoffs and the 2 standoffs that are screwed into standoffs. When you do this make sure that the standoffs in the motherboard mounting plate are good and tight, make sure they don't come loose with the screws. (The 2 standoffs are used to fasten between the daughterboard and the motherboard.)

Lay the protective plastic sheet that comes from the original case in the bottom of the tower case between the motherboard and the motherboard mounting plate. Then at an angle insert the Amiga 4000 motherboard into the tower. Fasten with the 7 provided screws and the two provided standoffs. (The 2 standoffs go in the 2 bottom right motherboard holes) see Example #1.

Outline of the A-4000 Motherboard (Example #1)



Now plug in the extension cables of the Mouse and Joystick ports at the left side of the motherboard. Which plug goes in which port can be determined by cable length.

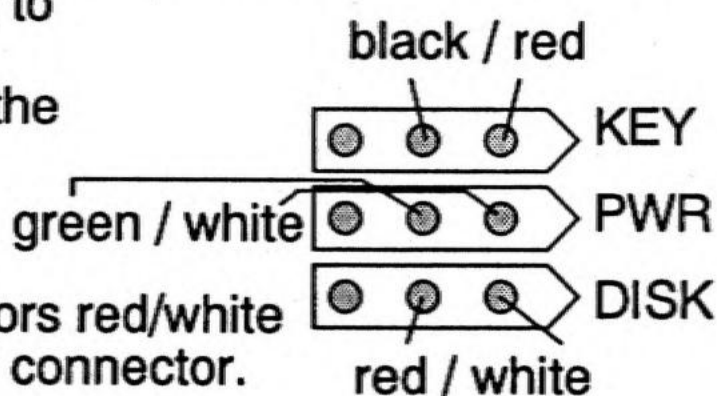
Before the Eagle daughterboard is mounted the cables for the LED display unit should be connected to the motherboard.

Layout of connectors on the Amiga 4000 motherboard

The labeled key-lock switch with the cable colors red/black is to be connected to the "KEY" connector.

The Power-LED plugs onto the "PWR" connector with cable colors green/white.

The labeled HDD-LED connector with the cable colors red/white are connected to the "DISK" connector.



Now insert the Eagle daughterboard into the tower case. Slide the daughterboard in at an angle placing the two metal extensions (board stiffeners on the left side of the board) under the card slot rack then push both the 100-pin connectors into the sockets of the motherboard so that a good electrical connection is established and the daughterboard sits well on the supports.

(With one hand on the daughterboard and the other hand behind the motherboard mounting plate push together HARD. Be careful not to cut yourself on the sharp connectors sticking out of the daughterboard).

The daughterboard rests on 4 standoffs (2 are between the motherboard and the daughterboard and the other 2 are connected to the motherboard mounting plate) and are fastened with the provided screws.

The power supply cable with the 12 pin-plug is to be connected to the Eagle daughterboard. DO NOT plug this in backwards or it will damage your computer. The plug is keyed and taped together to make sure this doesn't happen. (When plugged in the "P9" and the "P8" should be right side up P9 on the left P8 on the right, P9-P8.) Then plug the power cable from the daughterboard into the motherboard.

NOTE: There are three cables that have a red 2 pin friction lock connector end on them. They all have a "red" and a "black" wire.

There is a short one right behind the LED panel, this gets plugged into the upper right hand corner of the daughterboard onto the connector labeled "5 V AUX" making sure the friction lock is in the correct orientation. There is a longer one near the bottom of the case that is connected to the small fan in the front of the case. This connector has the same end as the other two, it gets plugged into the lower right hand end of the daughterboard into the connector labeled "12 V FAN" again making sure of the orientation of the friction lock. The last one with the same end on it is obvious it goes to the large fan in the rear of the case. It gets plugged into the daughterboard in the upper left hand side into a connector labeled "12 V FAN", You will notice a connector next to this one that is labeled "5 V FAN", you may want to use this connector if you desire less air flow and less fan noise. If you have more than 2 expansion cards or more than 2 hard drives we recomend that you use the 12 volt connector. (see Example #2)

The rest of the LED connections to the daughterboard are as follows:

From Left to Right

(Turbo LED - not used / Yellow / White)

(Reset Switch - White / Orange)

(Video Switch - Blue hangs off / White / Red)

(example #2 has a picture of the location of these connectors)

The last thing to do is to screw back in the hexagonal screws of the Sub-D SERIAL port to the back of the case. Don't turn the screws too tightly with the 5 mm nut driver (or pliers) as they are easily stripped whereby the thread is destroyed. They should be just as tight as is needed so a fixed plug can be unscrewed and removed without the hexagonals coming loose.

Hold the 3.5 inch drive cage onto its mounting position in the tower and determine the position of the drives that have to be placed inside. Then fix the drives into the dismantled drive cage and mount it back into the tower case. Now

check the exact positioning of the drives and correct it if necessary.

Connect the data cables and power cables of all drives making care of the polarity that you noted before.

Before you close the tower case make a test run of your computer with no cards in it. If all the lights and everything seems to be working fine then install all the 8 black plastic card guides and your cards back inside and start operating the computer as usual.

After testing with and without your cards then turn the power off and you can place the lid on and connect the plastic foot of the tower with the 4 screws that are provided.

Specific Functions of The Tower System

The TURBO-switch is for switching the Video slots.

The TURBO light if attached to the daughterboard will indicate that the system is being genlocked by a video card. It can also be used as an activity light for a hard drive or HD controller if desired.

The LED will display which slot is master and which is slave. Whichever number is displayed "1" or "2" is master. The top Video slot is #1 and the next one down is Video slot #2. (see Example #2)

The RESET-switch resets the computer.

The K/LOCK- alias Key Lock locks out the keyboard and mouse.

The H.D.D. light - alias Hard Disk Drive only lights if you have a IDE hard drive connected to the motherboard. If you have a scsi controller feel free to connect it wherever is appropriate for your specific configuration.

This system has been tested with the Toaster and the Opalvision main board, they will function simultaneously

without switching. (You must have the Toaster as master and the Opalvision as slave) If you have the Opalvision Video Processor board (although not tested) you will need to switch the video slots as the Toaster or the OVP board must have control of the Amiga's bus. The video slots have been seperated by one card slot width for the purpose of allowing both Opalvision with it's VP board and the Toaster to be installed together.

We have preformed in house testing with the following products:

Expansion Cards: Video Toaster/Flyer, Opalvision/Main Board, DKB A4091, Fastlane, GVP series II, Retina Z III, DMI Digital Broadcaster, DMI Resolver, Picasso II, Studio 16, Amilink AL3N-I, Emplant, ASDG GPIB, CEI 4066 Ethernet, DPS PAR + TBC IV, CBM A386 Bridgeboard, CBM A2091, CBM A4091 and CBM 2058 Ram board.

Accelerator Boards: Warp Engine 40mhz/040, GVP G-Force 040/40, CBM 3640 25mhz/w/Sonnet Doubler 50Mhz-040 and CBM 030.

Operating Systems: 3.0 and 3.1

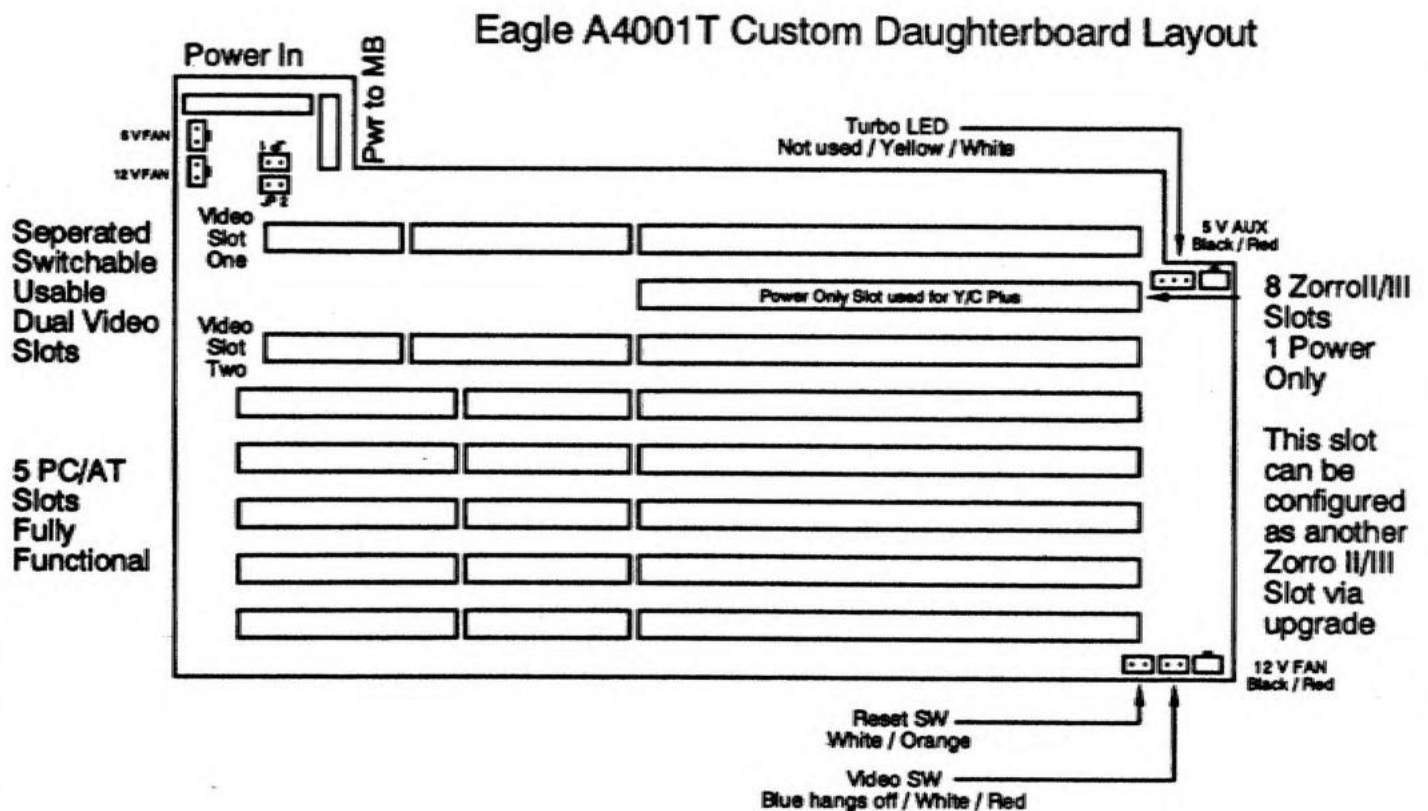
Zorro Cards: According to Commodore's specification the Buster chip has been designed to handle 5 Zorro cards. We DO NOT recommend that you install more than the 5 Zorro cards that Commodore has designed the Buster chip to handle. However, we have simuttaneously run 7 mixed Zorro II/III cards and they all worked with no problems. Running more than 5 Zorro cards could cause damage to the buster chip and or the computer. (The concequences are unknown?) (NOTE: a rev. 11 Buster chip is required for Zorro III compatibility)

SPECIAL NOTES: The older original 3.5 inch floppy drive of the A-4000 is mounted into a custom 5.25 inch mounting frame. The height of the original A-4000 drive is 1.5 inch, so it can't be placed in the space with 3.5 inch drive covers without a 1/2 inch opening under the drive. We have a modified frame for this purpose. (Contact Eagle for this special frame) However, if you have the newer floppy drive that is 1" high, you can mount the

drive in the 3.5 inch drive cage or use a normal floppy mounting kit to mount it in the 5.25" bay. Half height hard drives and additional 3.5" slimline floppy drives can be mounted in the 3.5" drive cage or the 5.25" drive cage with a mounting kit.

The pins "JP 1" and "JP 2" should have Jumpers on them as shown on Example #2.

Example #2 Custom Daughterboard Layout with LED connections shown



DISCLAIMER

Eagle Computers Inc. will in **NO WAY** be responsible for **ANY DAMAGE OR INJURIES (PERSONAL OR CORPORATE) WHAT SO EVER** resulting from the installation of the Amiga 4000 computer into our tower case. Please use common sense. Have your dealer install it for you. Eagle makes no claims to functionality to any specific configurations. We have done our best to make sure that 3rd party boards work in our system, but make no warranty assurance that they will all work.

NOTE: Make sure that you are well grounded before you touch anything!! A ground strap, an antistatic mat and a static free environment should be priority number one.
(These above things are not provided)

NOTE: If you do not feel comfortable in installing your system in the tower case contact your local area dealer to see if he will make the transfer for you. Expect to pay for this service with GREAT JOY. Remember we are all in this together SUPPORT YOUR LOCAL DEALER. If you have no local dealer or they will not make the transfer for you we will be happy to. Call Eagle for information. 407-951-9732

NOTICE: DO NOT FORCE ANYTHING IF IT DOES NOT COME APART OR GO TOGETHER EASILY SOMETHING IS WRONG! REFER TO THE A-4000 MANUAL OR CALL SOMEONE THAT KNOWS THE ANSWER!! (Only exception is the accelerator board)

ALSO NOTE: You will need the "A" Version if you get a Sonnet Doubler. If you have an X-Calibar accelerator or a Cyberstorm, you will not be able to install the 3.5" drive cage back in the tower case as these boards are too tall, if you own one of these accelerators you will need to get a normal floppy mounting kit to mount your 1" high floppy into a 5.25" drive bay (call if you can't find one). **ALSO:** you **MUST** have low profile simms in a Warp Engine, there is not much room to spare.

(All trademarks and copyrights are of their respective companies)
(Newtek, Centaur, GVP, Commodore, Utilities Unlimited, etc.)

Copyright (C) 1995 by Eagle Computers, Inc. All Rights Reserved.

Reproduction of any kind, is not permitted without previous written consent
of Eagle Computers, Inc.