

Quikpak 68060 Information

Posted on [August 4, 2016](#) by [darrenhd](#)

Note: much of the text on this page is in the “past tense”, so it will remain that way for historical significance.



This is a support page for all those owners of Amiga 4000Ts with Quikpak 68060 accelerators installed. Since purchasing my board I have had some problems and questions. Others out there may be in the same boat. If you are, I hope this page will be able to answer some of your questions. For those of you who do not own the 68060 accelerator, you may find this page useful as well. Through some investigation I have found out that the 68060.library was licensed from Ralph Babel, and the 68060 board design from Jeff Boyer (Boyer Inc.) Some of you may know Ralph Babel’s name from his work on several Amiga Books and also the GURU ROM for [GVP](#) scsi controllers. I am not sure of the exact relationship of the license, but it seems that only the 68060.library and 68040.library stub were licensed. The CPU060 command is not Ralph’s work. Also, Quikpak (or perhaps Jeff Boyer) did not license Ralph’s new math library, that would work in similar fashion to phase 5’s CyberPatcher utility. I would encourage all of you out there to E-mail Quikpak and ask if they will license Ralph’s math library for their 68060 products. Also please contact me if you have any further information about the Quikpak 68060 card. Please keep checking back to this page in the never several weeks and days. I will add performance benchmarks and other information.

Please note that this page has no affiliation with Quikpak, phase 5, Boyer Inc, or any contract developers that may work for those companies.

Software Support

Here is what I have determined to be the latest version of the support software for the Quikpak 68060 accelerator:

Software/Disk	Current Version download
Install Disk version 1.0	(DMS Format) and Lha Format
68060.library	2.2 (July 26, 1996) – included in Install Disk
Manual, XP version	060 XP Version Manual ZIP format
Manual, Tower version	Quikpak 060 Tower version Manual

Recently it has come to my attention that a different version of the 68060.library has been shipping with the Quikpak A4060T systems. This version is the one from Coenobium Developments. It is unknown why the change was made (perhaps it was a mistake?). So far attempts to contact Quikpak have failed, but we will try to get to the bottom of the situation...

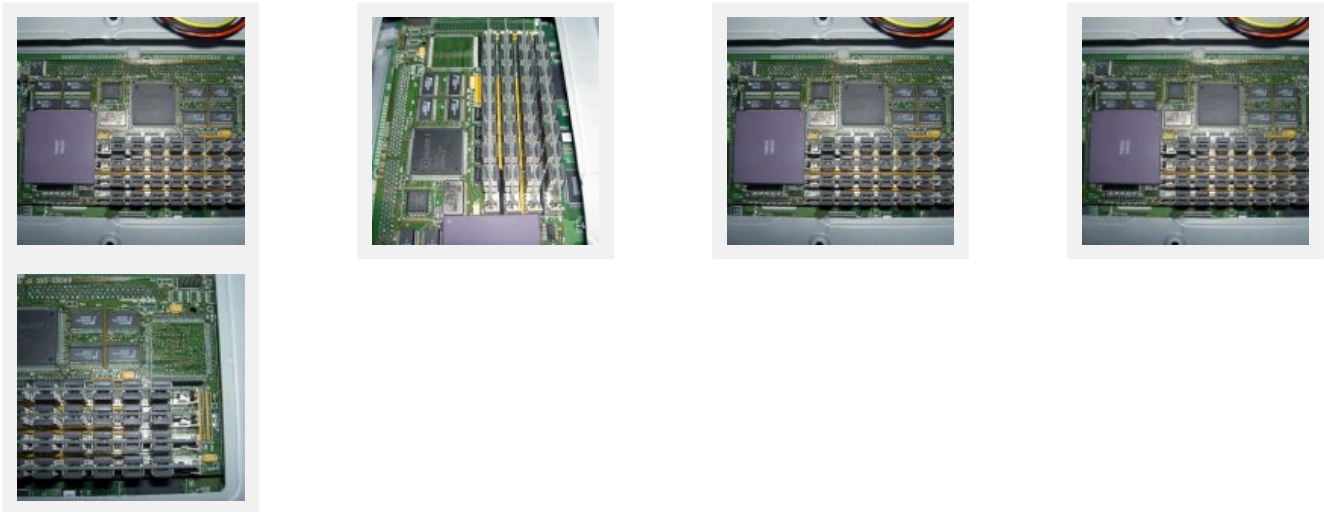
New: Installation disks for other 68060 cards can be downloaded from [Gregory Donnor’s page](#).

Hardware Support

The Quikpak 4000T 68060 accelerator runs at 56.75Mhz and will support EDO ram. If you can get your hands on EDO ram I would recommend it. I have tested the board with and without EDO ram installed. EDO ram gives an astonishing 15 to 18% speed increase in memory access. With EDO ram installed the board is close to 2x as fast as phase 5's Cyberstorm MK-II 68060 card!

Desktop Version

Quikpak also offers version of their 060 card that fits in an Amiga 4000 Desktop, although this card was also sold with the Amiga 4000T that Quikpak produced. The desktop model sports a UW SCSI controller as optional equipment! Here are some photos of the Desktop board:



Known Issues

Problem Description	Solution/Comments
When using Shapeshifter and the serial port with TCP/IP the hard disk locks up and the light stays on freezing the machine.	Make sure your SCSI devices are properly connected and terminated. If the problem still persists, try turning off scsi fast bus or synchronous mode. If that does not solve the problem it may be a 68060 related problem or timing/DMA issues. Partial Solution: Run Shapeshifter off the IDE controller of the A4000T. There seems to be some problem with the SCSI controller. I am still getting some lockups on ShapeShifter. It seems that I can not find a 100% stable solution.
Prepareemul does not work	Use the prepareemul A1200 switch
Rendering is slower on my 68060 than on my friend's phase 5 accelerator	Non-phase 5 68060 cards do not include a Cyberpatcher utility. This fpu patching is required because some instructions are missing from the 68060's fpu. Oyxron, a demo/coding group, is releasing a commercial product named OYXpatcher that will work on all 68060 cards. For more information go to their page by clicking here.
The V-lab Y/C framegrabber card (from Macrosystems) when used with the QuikPak 060 board does not always grab a complete video frame, instead only grabs one field and keeps previous 2nd field in its buffer, thereby interleaving two different images. Curiously, when we switch back to the original 68040.library (thus slowing the machine way down), we don't have a problem with V-lab. For more information contact Bob Richardson.	No solution yet.

Some Fujitsu hard drives do not seem to work with the A4000T. (Note: this is probably a general A4000T problem)

I have tested both 1.0 and 1.3 gig Fujitsu hard disks on the A4000T. Both were not recognized properly (or not at all) by the Amiga. Keep this in mind when shopping for an IDE drive for your A4000T.

FUSION is generally unstable and does not work (freezes after awhile) when dialing out to an internet connection.

This general problem with Mac Emulation and the Quikpak 060 hardware is still unresolved. We are attempting to find a solution.

Performance

Machine configuration:

Amiga Technologies A4000T

Quikpak 68060 card installed

32 meg EDO 60ns local 060 ram

18 meg of motherboard ram (60ns Fast Page Mode)

Picasso 4 Graphics Card with Picasso 96 1.13

1.06 gig seagate medalist hard disk

BusSpeedTest 0.19 (mlelstv) Buffer: 262144 Bytes, Alignment: 32768 (bustest fast rom)

Memtype		Cycle	Bandwidth
fast	readw	44.8 ns	44.6 meg/sec
fast	readl	71.1ns	56.6 meg/sec
fast	readm	73.1ns	54.7 meg/sec
fast	writew	44.8ns	44.7 meg/sec
fast	writel	89.8ns	44.6 meg/sec
fast	writem	89.0ns	45.0 meg/sec
rom	readw	44.8ns	44.7 meg/sec
rom	readl	69.9ns	57.2 meg/sec
rom	readm	73.0ns	54.8 meg/sec

Memspeed Benchmarks (Memspeed Copyright 1996 Frank Wille)

Ram type: 60ns Fast Page Mode (FPM) vs. 60ns EDO Ram (EDO)

Type	FPM Read	EDO Read	% Change
Chip Ram	4617 kB/s	4617 kB/s	0.0%
Fast Ram	46492 kB/s	54545 kB/s	+17.3%
Rom	46586 kB/s	54545 kB/s	+17.1%

Type	FPM Write	EDO Write	% Change
Chip Ram	6969 kB/s	6968 kB/s	-0.01%
Fast Ram	38927 kB/s	44055 kB/s	+13.2%

Type	FPM Copy	EDO Copy	% Change
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Chip Ram	2777 kB/s	2777 kB/s	0.0%
Fast Ram	22470 kB/s	26716 kB/s	+18.9%

As you can see from the table above, the EDO ram has a significant impact on both the read and write speeds of Fast ram, with an upto 18.9% performance boost over FPM (fast page mode) ram.

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