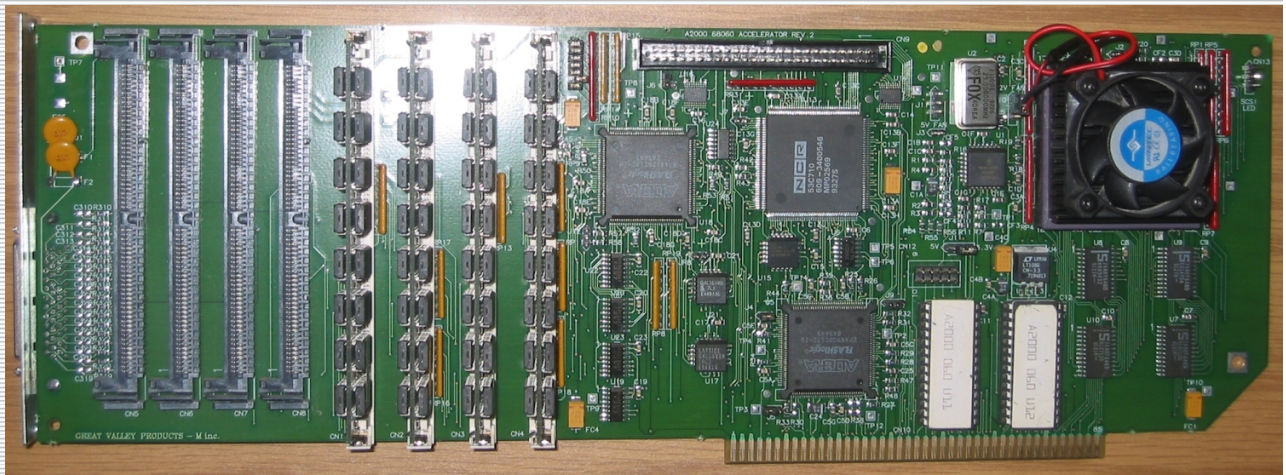
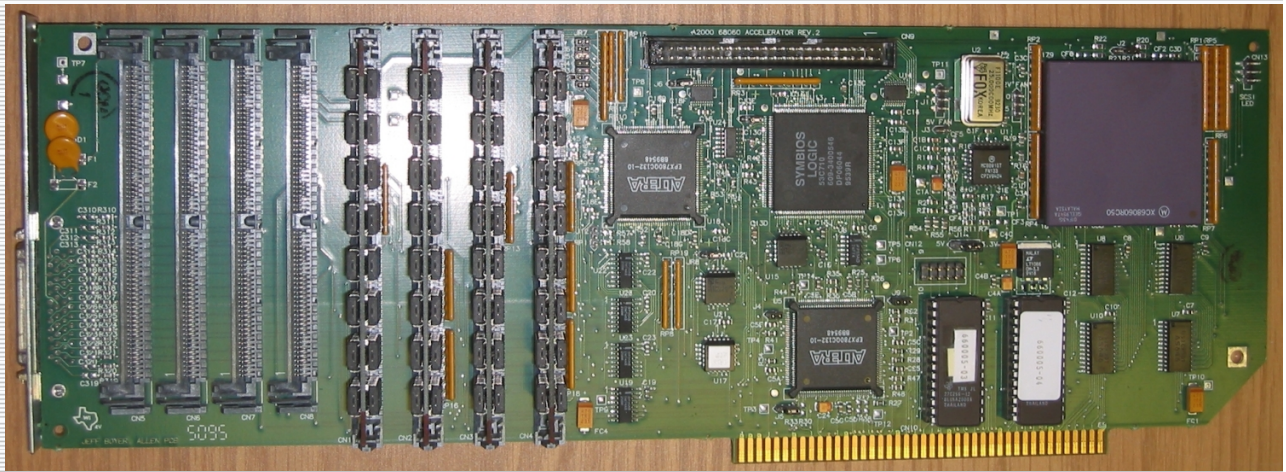


Support & Tips for GVP TekMagic 060 aka G-Force 060

This card is also known as G-Force 060. It is part of the excellent series of G-Force cards (G-Force 030, G-Force 040) made by Great Valley Products for Amiga 2000. The TekMagic 040 also exists, and as name indicates comes with 68040 processor instead of 68060. The G-Force 040/060 was manufactured by Great Valley Products even up till 1999. The only other comparable-performance 68060 based accelerator board is Blizzard 060 by Phase 5 (later DCE) and DKB Wildfire (68060). The TekMagic 060 with 68060 @50mhz, 128 MB RAM and DMA SCSI-II controller, is the fastest accelerator for Amiga 2000 and beats out many accelerators for A4000/1200 (with exception of PowerPC ones of course!). After owning and working with systems with Commodore 68030, then G-Force 68030 and G-Force 68040, I can say this is board really rocks and is 100% worth the money spend. The TekMagic 060 allows the Amiga 2000 to reach the pinnacle of speed.



Rev 2 by Great Valley Products - M Inc.



Rev 2 by Great Valley Products "Jeff Boyer, Allen PCB".

These are the designers of the board. Jeff Boyer and Scott Hood with GVP since 1989, both were former Commodore employees, who previously designed
A2052/2058 Ram Boards, A2091/A590 SCSI Controller and the A2320, Amber Chip (Hood).

Main Features

- 68060 @ 50 MHz or 68040 @ 33 / 40 MHz.
- Fast SCSI 2 controller (53C710), with 10 MB/s max transfer speed. 50 pin internal header and 50 pin external high density connector.
- active SCSI termination can be disabled with jumper.
- four 64 pin GVP SIMM sockets. Since each 64 pin slot is linked to 72 pin one, only one of them can be used at a time. (ie cannot have GVP and SIMM in socket CN1 and CN5). Also, cannot mix 4 or 16 MB GVP SIMMs.
- four 72 pin SIMM sockets (up to 128 MB RAM). A double sided 72 pin SIMM can be used, but it rules out two GVP SIMM sockets.
- supports burst RAM access when SIMMs are installed in pairs (recommended).
- RAM access speed is selectable 60-80ns. See JR2 chart on this page.

- the tekscsi2.device is not NSD compliant, it autoboots FFS partitions only - it looks for filesystems in the Kickstart ROM, but it does not care about filesystems loaded into the RDB area
- The card allows you to shadow the Kickstart into Fast RAM for improved performance, and has a 68000 fallback mode for compatibility with old software.

Settings

The board is picky about the different types of RAM modules. Some work, some don't. I have been lucky to pick my 128 MB RAM and both of TekMagic060 boards worked out fine. I did purchase 4 identical SIMMs, as my past Amiga and PC experience suggests not to mix SIMM modules. Please, check that the actual plastic jumpers are 100% working (I found 2 of mine were faulty and did not make proper contact causing weird hickups). This may be obvious but...

The recommended setup is a Amiga 2000 rev 6.2 or higher, with kickrom 3.1 (minimum is kickrom 2.04). One drawback, is that the TekMagic060 can be very picky about some A2000 motherboard revisions, and their bus noise. The other minor drawback, is that the embedded tekscsi2.device will not automount other filesystems than FFS. Other than that, hardware NCR/Symbios Logic 53c710 and software (tekscsi2.device) sides of SCSI-2 controller board is excellent.

Jumper Settings

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First column are my settings.

```

JR1 ON - burst mode: ON - enabled
JR2 OFF - RAM speed: OFF - faster access time (60ns RAM)
JR3 ON - burst write: ON - enabled
JR4 ON - burst read: ON - enabled
JR5 ON - GVP SIMM: ON - 16 MB; OFF - 4 MB
JR6 ON - 72 pin SIMM: ON - double sided; OFF - single sided
JR7 ON - reserved / factory default
JR8 ON - refresh: ON - 4k; OFF - 2k or 4k
J1 2-3 - CPU power: 1-2 - 5V (68040 only); 2-3 - 3.3 V (68060 only)
J2 2-3 - CPU clock: 1-2 - 68040; 2-3 - 68060
J3 OFF - clock: OFF - enabled
J4 ON - 68000 mode: OFF - enabled
J5 OFF - DTACK pull-up: OFF - enabled
J6 OFF - active SCSI termination: OFF - enabled
J7 OFF - interrupt pending: ON - DMA backoffs; OFF - DMA ignores interrupt
J9 1-2 - EPROM type: 1-2 - 27C256; 2-3 - 27C512

```

### JR2 jumper chart

| CPU Vs.    | 68060 50Mhz | 68040 40Mhz | 68040 33Mhz | JR2 Settings |
|------------|-------------|-------------|-------------|--------------|
| DRAM speed | 60ns        | 60/70ns     | 60/70/80ns  | OFF          |
|            | 70ns        | 80ns        |             | OFF          |

## Installation of Amiga Workbench 3.1 / 3.9

Attention : 68060.library IS NOT included in the 3.1 OS disks, so follow the suggested installation procedure (i.e. booting from the provided diskette) otherwise your Amiga won't boot. Again, you cannot boot off OS 3.1 disks.

Later, after complete OS install, when booting, your amiga 2000 may still refuse to boot. This is because reboot by software never works. Once disk stops clicking and red power light flicks, you have to press CTRL-A-A once in order to really reboot. This is due to the RESET pulse sent by the G-FORCE, which is too short for the rest of the Amiga to really reset. This is not a defect or hardware failure, and has been well documented since the release on a number of reviews.

Final conclusion, two thumbs up for TekMagic 68060.

### Other Links

[Tips and Tricks for G-Force 040/060](#)

[Greg Donner Unofficial Support of GVP-M4060/GVP2060](#)

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