# The MCCC Connection

A Publication of the Metroplex Commodore Computer Club
January 1996

# The Guru-ROM v6

The Guru-ROM v6 package is an upgrade for most Amiga SCSI host adapters manufactured by GVP. It consists of a new driver ROM on a small adapter board, an installation disk and a manual. The Guru-ROM requires an Amiga computer with one or more SCSI devices attached to a Series-II type host adapter from GVP. This includes the "G-Force," "Combo" and A530 turbo boards and the A500, A1200 and Zorro-II host adapters (with or without RAM expansion, including the 4008). The upgrade is not suitable for the A1291 daughterboard and the (very old) Series-I host adapters. Kickstart 1.3 or newer is required.

### Installation

To install the adapter board with the new ROM chip, you have to open your Amiga, remove the GVP card and locate the old ROM chip (which is always in a socket). Now you need to lever it out of the socket with a small screwdriver and insert the new adapter board in its place. Depending on your configuration, you might also need to change some jumper settings on the expansion board before you assemble your Amiga again. If you have more than one GVP SCSI expansion in your Amiga, you need only one Guru-ROM v6.

The utility and configuration software for advanced use on the installation disk can be used right from the disk or copied manually to your hard drive using Workbench or the Shell. The configuration of all your software that uses the SCSI driver directly has to be changed, because the new driver is called "omniscsi.device" instead of "gvpscsi.device." This affects DOSDrivers or Mountlist files, low-level disk utilities like HDToolBox or SCSI-direct software like CD-DA players.

### Compatibility

The manual includes a "Statement of conformance with the ANSI standard X3.131-1986 (SCSI-I)" and says the driver ROM is fully compatible with CCS and SCSI-2 too. All relevant Amiga standards and programming guidelines I know of seem to be respected. For example, the driver is trackdisk.device and scsi.device compatible, does Autoboot and Automount and supports the Rigid Disk Block and SCSI-Direct standards. The ROM has special code for the different revisions of the SCSI chip used on the GVP hardware. The manual contains instructions how to upgrade faulty A3000s and A4000s and switch the driver back to DMA mode to get best performance.

Advanced SCSI options like parity checking or those that increase performance, synchronous transfer and disconnect/reselect, and be switched on for each SCSI device separately with a special utility. There are even several options to make the driver work with SCSI-related software that would normally fail because it does not follow Commodore's programming guidelines or makes wrong assumptions.

### Speed

I have seen reports from people who reached values well over 3MBs, near the absolute hardware limit of the Zorro-II. The maximum speed you can reach depends heavily on your system configuration. The driver automatically selects the right transfer mode for your combination of Amiga hardware and SCSI devices, but of course its performance cannot exceed the limits your configuration imposes.

To get the best results, you can tune your system with the supplied configuration utilities by switching on some optional features your hardware may support. Synchronous mode especially can give a remarkable speedup if you have a fast hard drive. When playing around with the settings, I was surprised to find out this might even be useful for slow devices like CD-ROM drives. Of course the transfer rate will not increase here, but with my Toshiba drive I managed to increase the free processor time during transfers, which gives a better overall system performance.

### Documentation

The Guru-ROM v6 comes with a printed booklet of sixty pages. It consists of four sections. The first one, called "user manual," describes how to install the product and explains all options of the configuration tools supplied on the disk. For many users, this might be all they need to read. The second section gives an extensive description of the driver's features and performance, the AmigaOS and SCSI standards and options it supports, and much technical background information about SCSI and the Amiga. It also gives hints for optimizing your configuration, discusses compatibility questions and explains in detail the problems of the Amiga's internal serial port with Zorro-II DMA hardware and how to solve them. I was very pleased to find this section in the manual. It gives a lot of interesting and useful information for users with some technical background.

The next chapter answers many frequently asked questions about GVP SCSI hardware and the driver. Most questions are about problems with specific

hardware and software and configuration issues. It's probably a good idea to have a look at these sections if something seems to go wrong with SCSI. The fourth and last section names the relevant original documentation about SCSI and the AmigaDOS and explains how to use the "A-Max-II" emulation software with GVP SCSI host adapters. In addition to the manual, there is also a readme file and documentation for some additional utilities on the installation disk.

I could not find any detailed information about hardware issues like SCSI cabling, internal and external connection of devices, termination or termination power. Although such information might be beyond the scope of a driver's documentation, it would probably be a good idea to include it here. Knowledge about these things can't be expected from a normal Amiga user and I found the description in the original GVP documentation very insufficient.

**Conclusions**

Without doubt, I think this is an excellent product. It is not really cheap, but considering the fact that this is not just a driver update from GVP, but a rather complicated new product with special hardware, much documentation and new utilities, I think the price is justified. As I have nearly no idea how this product could still be improved, I rate it 5 stars out of 5. Anybody who is using a GVP SCSI host adapter and has problems with his current configuration or just wants to get the best performance and most features from his hardware should consider this upgrade.

...Oliver Knorr

# Library Hot Picks

| | |
|---|---|
| RequestList | MCCC-A_974 |
| SmartAss | MCCC-A_976 |
| Magic User Interface 3.1 | MCCC-A_979 |
| Icon Deluxe Public 1.13 | MCCC-A_981 |

# January Calendar

January 2 — MCCC Board of Director's Meeting
7:30 pm — Dave Owens' Place
4640 Greenfern Lane, Fort Worth

January 9 — Amiga By-The-Loop Chapter
7:30 pm — N. Richland Hills Community Center
Loop 820 at Rufe Snow, N. Richland Hills

January 13 — Metro C64/128 Chapter
1:30 pm — UNT Health Sciences Building
Lancaster & Camp Bowie, Fort Worth

January 16 — Amiga North Dallas Chapter
7:30 pm — Richardson Square Mall, Community Room
SE Corner of Beltline and Plano Road, Richardson

January 27 — 7:00 am — Newsletter Deadline

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