The GS Memory Board

The GS Memory Board is a 1 to 4 Mb DMA compatible memory card with a twist. The twist is the piggyback connector on the back of the card that allows you to keep using your existing memory card as long as it was designed according to Apple's guidelines regarding memory expansion products. The methods used by Applied Engineering to implement their memory products prevent any AE memory card (with the exception of the GS Ram II) being used in the piggyback connector of the GS Memory Board.

The GS Memory Board is fully DMA compatible under all circumstances, even with another card installed in the piggyback connector. It is usable in either model Apple IIgs (ROM01 or ROM03) without modification.

The memory chips used to populate the GS Memory Board are 1Mb x 1 DRAM memory chips in a DIP package. The memory chips must be rated with an access speed of 120ns or faster. If you are installing your own memory chips be sure to install them with the notch on the chip oriented correctly (toward the bottom of the board if it is held with the card edge down).

The following is a list of the valid configurations for the GS Memory Board:

   o By itself (nothing in the piggyback connector) as a 1 to 4 Mb memory card. (1-4Mb)

   o With a FULL (1Mb) Apple Memory Card installed in the piggyback connector. (2-5Mb)

   o With another FULL 4Mb memory card installed in the piggyback connector. (5-8Mb)

Attention Apple High Speed SCSI Card Users

If you are installing a total of 5Mb or more and use an Apple High Speed SCSI card you will need to disable the DMA on the Apple High Speed card. This is not necessary if you have a RamFAST/SCSI card. You have to do this because only the first 4Mb of expansion memory are DMA compatible. The RamFAST/SCSI knows this and acts accordingly.

Attention Appleworks V2.0 Users

If you are installing a total of 2Mb or more of memory into your computer and you use Appleworks V2.0 you should be aware that this version of Appleworks will not function correctly with that much memory. To get around this you should use the Control Panel to create a Ramdisk that uses enough memory to take your available memory down to 2Mb or less. This problem is not present in   Appleworks V2.l, V3.0, or Appleworks GS.

When installing or adding memory to the GS Memory Board the banks should be filled in the order in which they are numbered (Bank1 first, Bank2 second, etc). You should then make sure that the jumpers are installed correctly. There are two (2) jumpers located on the GS Memory Board and they are numbered 1 and 2. Each jumper can cover two (2) of the pins labelled A, B, and C (either A and B, or B and C). Use the following diagrams to correctly set the jumpers according to the amount of memory on the GS Memory Board (NOTE: This does NOT including any memory that may be on a piggybacked memory board):
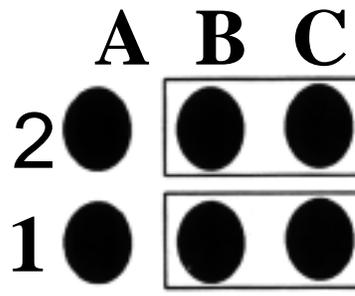
A B C

2 [● ●] ●

1 [● ●] ●
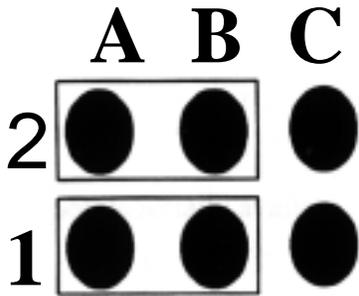
Jumpers for 1Mb Installed on
the GS Memory Board

A B C

2 [● ●] ●

1 ● [● ●]
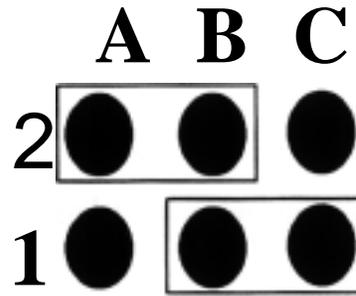
Jumpers for 2Mb Installed on
the GS Memory Board

A B C

2 ● [● ●]

1 [● ●] ●
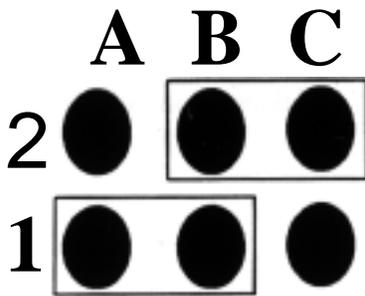
Jumpers for 3Mb Installed on
the GS Memory Board

A B C

2 ● [● ●]

1 ● [● ●]

Jumpers for 4Mb Installed on
the GS Memory Board

After the board is properly setup it is time to install in the GS Memory Board into the Apple IIgs. Turn off the power switch on the Apple and remove the cover. If there is already a memory board in the memory expansion slot remove it. Now insert the GS Memory Board into the memory expansion slot. If you wish to install a card into the piggyback connector you should do so at this time. Now, if you have installed another card in the piggyback connector, take the piece of cardboard that came with the GS Memory Board and place it between the piggybacked memory board and the case of the Apple. This is to insure that the piggybacked memory board does not touch the case of the Apple. Replace the cover. Turn on the power switch. If your screen does not display the Apple Copyright message and/or you hear a squealing sound from you computer turn off the power IMMEDIATELY and recheck the installation, jumpers, and especially the cardboard divider if you have a memory card installed in the piggyback connector and try it again only this time try it with the cover off of the computer. If it works without the cover on then the problem is just that the cardboard divider was not installed correctly. If you are still having problems and do not see anything wrong then turn to the Tech Support section.