

NEXTSTEP for Intel Processors

Title: Gateway 2000 50V and 66V

Entry Number: 1120

Last Updated: <<Date June 13 1995>>

Product Vendor:

Gateway 2000

610 Gateway Drive

P.O. Box 2000

North Sioux City, SD 57049-2000

USA

+1 (800) 846 2059 USA toll-free phone

+1 (605) 232 2000 international phone

+1 (605) 232 2109 bulletin board system

+1 (605) 232 2224 alternate phone number for bulletin board system

+1 (605) 232 2561 faxback system

Keywords: Gateway 2000, ATI, Mach, VESA, Localbus

Overview:

The Gateway 2000 displays 1024 x 768 in 16-bit color under NEXTSTEP when equipped with an ATI Ultra Pro with 2 megabytes of video RAM. Because the standard ATI Ultra Pro provided by Gateway comes with only 1 megabyte, you must specifically request the additional memory when you order your system.

Setup and Installation:

Set the 3 1/2" floppy disk drive to be drive A. To do this, open the computer's case and switch the floppy drive controller cable. Consult the Gateway 2000 user's guide for a more detailed explanation.

There are two versions of the Gateway BIOS: the MCM2 Chip Set and the GJX30 Chip Set. Below are the settings to use for your particular Gateway. To change the configuration settings, invoke the ROM setup program by pressing Ctrl-Alt-Esc early in the boot process.

MCM2 Chip Set Configuration

The Quality Assurance group successfully installed NEXTSTEP Release 3.1 onto a Gateway 2000 66V that had the following setup. NEXTSTEP was installed on a SCSI hard disk.

```
Phoenix Technologies Ltd.      Version
System Configuration Setup    4.03 00
```

```
Diskette A:      3.5 Inch, 1.44 MB
Diskette B:      5.25 Inch, 1.2 MB      Cyl   Hd     Pre   LZ    Sec  Size
Hard Disk 1:     Not Installed
Hard Disk 2:     Not Installed
Hard Disk 3:     Not Installed
Hard Disk 4:     Not Installed
HD1 Block Mode : Disabled              HD2 Block Mode : Disabled
HD3 Block Mode : Disabled              HD4 Block Mode : Disabled
Base Memory:     640 KB
Extended Memory: 15360 KB
```

Display: VGA/EGA
IDE Controller Speed: Medium

**Phoenix Technologies Ltd.
Micronics MCM2 Chip Set Feature Control**

BIOS shadow : Disabled *

CPU speed : Fast

Internal cache : Enabled

External cache : Enabled

0c0000-0c7fff : Noncacheable

0c8000-0cffff : Noncacheable

0d0000-0d7fff : Noncacheable

0e0000-0effff : Noncacheable

0f0000-0fffff : Noncacheable

On Board COMA : Disabled

COMA-IRQ : Disabled

On Board COMB : Disabled

COMB-IRQ : Disabled

On Board LPT : Disabled

LPT-IRQ : Disabled

* You must use the ROM configuration utility to disable BIOS shadowing to run NEXTSTEP on this computer.

GJX30 Chip Set (version 05E)

The Quality Assurance group successfully installed NEXTSTEP Release 3.1 onto a Gateway 2000 66V that had the following setup. NEXTSTEP was installed on a SCSI hard disk.

Phoenix SETUP Utility (Version 1.00) 02
(c) Phoenix Technologies Ltd. 1985, 1992 All Rights Reserved

** Standard System Parameters **

Page 1 of 2

System Time: Set appropriately

System Date: Set appropriately

Diskette A: 3.5", 1.44 MB

Diskette B: Not Installed

Cyl HD Pre LZ Sec Size

Hard Disk 1: Not Installed

Hard Disk 2: Not Installed

Base Memory: 640 KB

HD1 Block Mode: Disable

Extended Memory: 31744 KB

HD2 Block Mode: Disable

Video Card: VGA/EGA

IDE Speed: Fast

Keyboard: Installed

Phoenix SETUP Utility (Version 1.00) 02
(c) Phoenix Technologies Ltd. 1985, 1992 All Rights Reserved

** X30 Chip Feature Control **

Page 2 of 2

System BIOS Shadow: Enable

Internal Cache: Enable

Video BIOS Shadow: Enable

External Cache: Enable

E8000h 32K Shadow: Disable

F0000h-FFFFFFh: Non Cacheable

E0000h 32K Shadow: Disable

C0000h-C7000h: Non Cacheable

D8000h 32K Shadow: Disable

On board COMA: COM1

D0000h 32K Shadow: Disable

COMA_IRQ: IRQ-4

C8000h 32K Shadow: Disable

On board COMB: Disabled

Turbo: Enable

COMB_IRQ: Disabled

Bus Clock: 1/4 Clock

On board LPT: Disabled

Board Type: DX-33/DX2-66 LPT_IRQ: Disabled
Non-Cacheable Area #1: Undefined 0000000h
Non-Cacheable Area #2: Undefined 0000000h

Motherboard Configurations

In addition to the two BIOS versions, there are two different motherboard configurations supplied by Micronics to Gateway for their V-series machines. The older motherboards have part number 09-00183 and the new ones have part number 09-00189.

You must set certain jumpers and dip switches on Gateway computers with the GJX30 Chip Set to enable the mouse and keyboard for use with NEXTSTEP. On both old and new motherboards, the dip switch box is located at the bottom of the first slot, counting from the left. The settings NeXT tested successfully with the old motherboard (09-00183) are **SW1 OFF, SW2 ON, SW3 OFF, and SW4 OFF**. We have been told by Gateway that on the new motherboard, the settings should be **SW1 ON, SW2 ON, SW3 OFF, SW4 OFF**.

You must also make some changes to jumpers on the motherboards. On the old motherboard (part number 09-00183) put a jumper on the W6 and W7 jumper pins. These pins are located near the top of the first slot, counting from the left. On the W20 jumper, which has three pins, put jumpers on pins 1 and 2. W20 is located next to the clock chip (approximately 1 1/2 inches to the right of the W7 jumper).

According to Micronics, on the new motherboards (part number 09-00189) you need only put a jumper on W3. This jumper is located just to the right of the ISA slots, in the middle of a cluster of three jumpers. Additional jumper changes may be necessary depending on your specific hardware configuration. Please consult your Gateway technical documentation for details.

Known Problems:

Releases 3.1 and 3.2:

- Gateway bundles a custom version of the ATI Ultra Pro, the XLR, with their systems. This card works

with fewer video modes of the NEXTSTEP ATI Ultra Pro driver than does the standard version of the adapter. The maximum resolution the NEXTSTEP Release 3.2 ATI Ultra Pro driver supports with the XLR is 800 x 600 in 16 bit color and 1120 x 832 in 8 bit grayscale.

· NEXTSTEP installation will fail if BIOS shadowing is enabled for the MCM2 Chip Set.

· If your keyboard generates incorrect characters or no characters it has probably been reprogrammed. To clear out any macros mistakenly created, press Ctrl+Alt+Suspnd Macro. The program light will blink for a few minutes and then go off. This should fix the problem. If not, either your Ctrl or Alt key has been reprogrammed. To rectify this, press the following keys in order: Remap, Ctrl, Ctrl, Alt, Alt, Remap. Then press Ctrl+Alt+Suspnd Macro. (Reprinted from the Spring 1993 issue of the *Gateway Monitor*.)