



# Sun Java™ Workstation W1100z and W2100z Release Notes

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# Sun Java Workstation W1100z and W2100z Release Notes

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For the latest version of these release notes and other Sun Java™ Workstation W1100z and W2100z documentation, click the Documentation link on one of the following Web sites:

<http://www.sun.com/w1100z> or <http://www.sun.com/w2100z>

Please note the following issues and considerations for the workstation:

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## Product Updates, Documentation, Support, and Training

Sun provides updates to documentation, drivers, firmware, and CD-ROM .iso images through the Sun web site. The web site also provides access to technical support and training services. Use the links below to access these Sun services.

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**Note** – Be sure to download the latest software and .iso image areleases from the Sun download site to ensure your system functions properly.

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Sun Function	URL
Documentation	<a href="http://www.sun.com/documentation/">http://www.sun.com/documentation/</a>
Updates, including firmware, drivers, and CD-ROM .iso images	<a href="http://www.sun.com/desktop/workstation/w1100z/downloads.jsp">http://www.sun.com/desktop/workstation/w1100z/downloads.jsp</a>
Technical support	<a href="http://www.sun.com/service/contacting">http://www.sun.com/service/contacting</a>
Training	<a href="http://www.sun.com/training/">http://www.sun.com/training/</a>
Solaris™ Operating System documentation	<a href="http://docs.sun.com">http://docs.sun.com</a>

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# Hardware/BIOS Issues

The following hardware and BIOS issues apply for the Sun Java Workstation W1100z and W2100z, regardless of the operating system installed on the workstation.

## Short Power Interruption Might Interfere With System Power-On

If power is briefly disconnected and then reconnected within a couple of seconds, the machine might not power up properly. The power supply will hang if the power is reapplied too soon after a power loss.

The workaround is to disconnect the power cord for at least 10 seconds and then reconnect it.

## USB Mouse

Mouse Version	Notes
Sun Type 6 USB mouse part number 370-3632-01	Not supported
Sun Type 6 USB mouse part number 370-3632-02	Supported
Sun Type 7 USB mouse part number 371-0788-xx	Supported <ul style="list-style-type: none"><li>• A Type 7 mouse might not be recognized by the workstation if you connect, disconnect, and reconnect the mouse within five seconds. To regain use of the mouse, disconnect the mouse for at least six seconds, then reconnect it to a USB port.</li><li>• The recommended configuration for connecting a Type 7 mouse to the Sun Java Workstation W1100z or W2100z is through a USB port on the Type 7 keyboard underside or backside.</li></ul>

# Graphics Cards

Note the behavior of the DVI connectors on the following graphics cards:

- **FX3000.** This card has two DVI connectors, one for a primary monitor and one for a secondary monitor. If you are only using one monitor, you might need to test each connector to see which one works with the monitor.
- **FX500.** This card has one analog (HB-15) and one DVI connector. In a single screen configuration, the analog output must be used. The DVI connector can be used for the secondary screen.

# Fan Cycling Reduction

The current version of the workstation BIOS reduces the frequency of fan cycling when the system is not in heavy use. If you do not have BIOS version R01B2S0 on your system, install it from the Sun Java Workstation W1100z and W2100z Supplemental CD V2.1 (705-1059-16), or later, or download the Supplemental CD V2.1 ISO image from:

<http://www.sun.com/desktop/workstation/w1100z/downloads.html>

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**Note** – Check the Sun download site to download the latest .iso image release for the Sun Java Workstation W1100z and W2100z Supplemental CD.

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# Hardware Upgrades

The Sun Java Workstation W1100z or W2100z can now be upgraded with the following components:

- SCSI hard disk drives are now available in 146 GB for the Sun Java Workstation W2100z.
- NVIDIA FX4000 graphics cards are also now available for the Sun Java Workstation W1100z and W2100z.

Contact your Sun sales representative for information on ordering any of these components.

# BIOS Upgrade Notes

BIOS versions starting with B4S0 that are supplied with the Sun Java Workstation W1100z and W2100z Supplemental V2.0 CD (705-1059-15), or later, were designed specifically to support the E-stepping AMD Opteron processors, starting with the model 252, as well as all previously released Sun Java Workstation W1100z and W2100z supported AMD processors.

While the BIOS on Supplemental V2.x CDs can be used with the previous releases of Opteron processors (such as 250, 248, 150, 148, etc.), it is not necessary to upgrade the BIOS for those platforms.

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**Note** – All Sun Java Workstation W1100z and W2100z systems released from now on will run BIOS version B4S0 or later. BIOS version B4S0 is also contained on the Supplemental V2.0 CD. Future BIOS versions will be on Supplemental V2.x CDs.

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A key point to note regarding the B4S0 BIOS and later: Do not flash a workstation that has model 252 processors installed with a BIOS previous to B4S0 (for example, B3S1 which was on the 1.3 version of the Supplemental CD).

The workstation will no longer function properly if it is run with a down-rev BIOS. The system will not finish Power On Self Test (POST) and will not boot any operating system.

## Memory Hole Remapping

There is a known issue with x86 platforms that have 4 GB or greater physical memory installed. Systems with this configuration will not be able to recognize all of the physical memory because of the memory configuration and PCI address settings. This condition is known as Memory Hole or PCI Hole. There will be a memory gap between the reported amount of available memory and the amount of physical memory in the system (for example, for a system with 4GB memory, the reported amount will be about 3.2 GB).

The size of the PCI hole is the total amount of PCI/AGP address space consumed for all devices as configured by the BIOS, and so is dependent upon items such as the amount of video memory, size of the AGP aperture, and the number of PCI devices.

With the B4S2 BIOS (on the Supplemental CD V 2.1), you can now remap memory around the memory hole and, if the operating system allows, programs can now access all the memory.

The default selection for memory remapping is Disabled. In order to enable memory remapping, you will need to choose one of the following options, depending on the type of processor that you have.

- For E-stepping Opteron Processors (model 252 or later): Choose the Hardware option, which enables the hardware to do memory remapping.
- For CG Opteron Processors (models earlier than 252): Choose the Software option, which provides a software emulation of the memory remapping. E-stepping processor systems can use this mode as well, but there may be a slight performance degradation.

To enable memory remapping in the BIOS:

1. **Press the F2 key at the Sun logo screen to enter the BIOS Setup utility.**
2. **Select the Advanced menu.**
3. **Use the arrow keys to select the Memory Hole Remapping option.**
4. **Select Hardware if you have an E-stepping processor and Software if you have a CG-stepping processor.**
5. **Press the F10 key to save your changes and exit the BIOS.**

See the following section in this document for the ramifications of using hardware memory remapping with certain Sun Java Workstation W1100z or W2100z configurations: [“Kernel Panic with SLES 9 64-bit” on page 10.](#)

## Mezzanine Card DIMM ECC Errors

If you have a Sun Java Workstation W1100z or W2100z running BIOS version B4S0, and an ECC error occurs on DIMM modules 5, 6, 7 or 8 on the mezzanine card, the BIOS will detect the deficient module(s); however, the BIOS will report the incorrect DIMM slot number.

To determine the specific module that was replaced, run the PC-Check diagnostics software from the Sun Java Workstation Supplemental CD (705-1059-xx). See Sun Java Workstation W1100z and W2100z User Guide, 817-6585-xx for instructions on running the PC-Check diagnostics software. This issue will be fixed in an upcoming Sun Java Workstation W1100z and W2100z BIOS release.

## Adaptec HostRAID Functionality

The Adaptec HostRAID functionality is disabled in the Sun Java Workstation W1100z and W2100z BIOS. If this functionality is enabled, it might cause data corruption in the RAID array. Enable the HostRAID functionality at your own risk, as these configurations are not supported by Sun.



## 24-inch LCD Monitor

For Sun Java Workstation W1100z and W2100z that have NVIDIA FX500 (Sun PN 595-7439-01 or F370-6801-xx) or NVS280 (Sun PN 595-7438-01 or F370-370-6800-xx) video cards installed, monitors 24-inch or larger are not supported.

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## Linux-Specific Issues

The following issues apply to Sun Java Workstation W1100z and W2100z systems that are running a Linux operating system.

### RHEL 3 64-bit Might Hang With 3D X Screen Saver

The Sun Java Workstation W2100z, when running RHEL 3 64-bit (any update), might experience a hang, particularly if a 3D X screen saver is being utilized. The workaround is to disconnect power from the workstation and reapply power (after a 10 second wait). This is not a problem with RHEL 3 32-bit (any update).

This is a known issue and is under investigation.

## Linux NVIDIA Drivers

Please note the following regarding NVIDIA drivers available on the NVIDIA web site:

- Do not install older NVIDIA Linux display driver versions 1.0-5336 (32-bit) and 1.0-5332 (64-bit) and earlier, which are available on the NVIDIA web site. These driver versions cause the Sun Java Workstation W1100z or W2100z to lock up.
- The NVIDIA web site provides drivers that are later than those provided on the Supplemental CD (version 1.0-6629). While the later version drivers will install and function properly, these drivers might cause a performance regression on certain graphics-intensive programs.

Use the NVIDIA drivers available on the Sun Java Workstation W1100z and W2100z Supplemental CD (version 1.0-6629) to avoid performance issues.

## FX1100 Graphics Card with RHEL 3 (64-bit)

If your Sun Java Workstation W1100z or W2100z has an FX1100 graphics card installed and you are installing Red Hat Enterprise Linux (RHEL) 3 WS (AMD64), you need to perform the installation using text mode, rather than using the installation GUI.

Refer to the Red Hat Enterprise Linux 3 documentation for more information on performing a text mode installation.

## 1394 (Firewire) Interface with RHEL 3

The IEEE 1394 interface is not supported in the RHEL 3 software. If you have installed the RHEL 3 WS operating system on the Sun Java Workstation W1100z or W2100z, you must complete the following procedure if you want to enable the 1394 port:

1. **Insert the Red Hat Enterprise Linux 3 WS CD 3 into the Sun Java Workstation W1100z or W2100z.**
2. **Install the following rpm:**

```
rpm -ivh kernel-unsupported-2.4.21-4.EL.kernel.rpm
```

Where *kernel* is the Red Hat kernel that you are running.

---

**Note** – If you have an SMP system, you might have to boot *both* the *smp* (symmetric multiprocessor) *and* the *uni* (uniprocessor) kernel, and install the respective rpm under each kernel. You only need to do this twice if you intend to boot between the *uni* and *smp* kernels.

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3. **Add the following alias to the `/etc/modules.conf` directory:**
- ```
alias ieee1394-controller ohci1394
```

---

**Note** – If you do not type the alias correctly, Red Hat Enterprise Linux 3 might hang.

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4. **Download the `rescan-scsi-bus.sh` script from the following URL:**  
<http://www.linux1394.org/scripts/rescan-scsi-bus.sh>

## 5. Reboot the workstation.

The 1394 device is *not* enumerated until you run the script in [Step 6](#).

## 6. Type the following to run `rescan-scsi-bus.sh`.

```
# sh /rescan-scsi-bus.sh
```

The device(s) appear in a hardware browser or the `/proc/scsi/scsi` directory.

# 3D Graphics Performance with RHEL 3

When running RHEL 3 Update 3 or later, you might experience reduced performance with 3D graphics.

This problem only occurs if *all* of the following are true:

- The 32-bit version of RHEL 3 is installed
- The update level of RHEL 3 is at least Update 3
- The machine has at least 4 GB of physical DRAM
- The NVIDIA drivers have been installed

The problem is that the AGPGART driver (supplied as part of the base OS support) has a bug whereby the computation for the amount of memory on the system overflows a 32 bit value.

Since this is a problem with the system supplied AGPGART driver and since this is an Open Source module, a fix will not be forthcoming from the Sun Java Workstation engineering team. The real fix would have to come from the Open Source (Red Hat) organization.

The workaround for this problem is to use the NVIDIA supplied AGP driver (NvAgp). The details on how to force the system to use this driver are supplied in the following NVIDIA Knowledge Base articles which can be found at:

<http://nvidia.custhelp.com/cgi-bin/nvidia.cfg/php/enduser/entry.php>

| ID  | Title                           |
|-----|---------------------------------|
| 149 | Linux - Configuring AGP         |
| 174 | Linux - X Configuration Options |

This problem does not affect the following OS installations:

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RHEL 3 32-bit (Update versions 0, 1 and 2)    SELS 8 (32-bit and 64-bit)

RHEL 3 64-bit (Update versions 0, 1, 2, 3, 4)    SELS 9 (32-bit and 64-bit)

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## Kernel Panic with SLES 9 64-bit

If you are running SUSE Enterprise Linux (SLES) 9 64-bit on the Sun Java Workstation W1100z or W2100z and all the following are true:

- the CPU(s) are E-stepping Opteron processors, (model 252 or later)
- the memory installed on the machine is 4 GB or more, and
- the BIOS Memory Remapping option is set to Hardware Enabled,

the SELS9 64bit (SP0 and SP1) kernel will panic. The suggested workaround is to enter the BIOS and Disable "Memory Remapping" (this is the default configuration).

To workaround this issue, do the following:

1. **Reboot the workstation**
2. **Press the F2 key at the Sun logo screen to enter the BIOS Setup utility.**
3. **Select the Advanced menu.**
4. **Use the arrow keys to select the Memory Hole Remapping option.**
5. **Select either Disabled or Software.**  
This issue will be fixed in a future release of the BIOS.
6. **Press the F10 key to save your changes and exit the BIOS.**

## RHEL 3 PXE Installation with an X-option Intel 1 GB PCI Ethernet Card

If you have installed a PCI Intel 1 GB Ethernet NIC (network interface card) into a Sun Java Workstation W1100z or W2100z, and plan to do a PXE boot installation with RHEL 3 (32- and 64-bit) note the following issue.

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**Note** – PXE install with Red Hat 3 Update 0 (32- and 64-bit) will not work with this X-option card.

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If the onboard NIC is enabled and the Intel PCI NIC is active, after the initial PXE boot has completed and the RHEL installation begins, the RHEL software will prompt the user to choose to use either the on-board (Broadcom) NIC or the PCI NIC to continue installation.

- If both NICs have physical Ethernet connections, no matter which NIC is selected to continue the installation, the installation will complete.

- If the user selects a NIC that does *not* have a physical Ethernet connection, the RHEL software will prompt the user to either use DHCP or specify an IP address for this NIC. Since this NIC does not have a physical Ethernet connection, any answer to this prompt will result in a network failure and the installation cannot continue.

To disable the onboard (Broadcom) NIC to avoid the issue explained above, do the following:

1. Press the F2 key during POST to display the BIOS Setup menu.
2. Navigate to the Advanced menu and select Chipset Configuration.
3. Navigate to the On Board Ethernet selection and choose Disable.
4. Press the F10 key to save your changes and exit the BIOS.

## AOpen Dual DVD Drives and RHEL 3

The AOpen dual drivers DUW1608/ARR will produce errors when writing to the DVD drive with RHEL 3 operating systems. The workaround is to use RHEL 4.

The firmware version on the AOpen dual drive should be A080.

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## Windows-Specific Issues

The following issues apply to Sun Java Workstation W1100z and W2100z systems that are running the Windows XP Professional operating system.

### Windows XP Professional WHQL Certification

The Sun Java Workstation W2100z has been qualified by the Microsoft Hardware Quality Labs (WHQL) to run the Windows XP Professional operating system. However, Sun does not support the Windows XP Professional operating system, so you need to obtain the software and support through a Microsoft dealer.

### Diagnostic Partition

The diagnostic partition for the Sun Java Workstation W1100z and W2100z cannot be mounted through Windows XP. The diagnostics software writes test logs to the diagnostics partition on the workstation. You can run the diagnostics software with Windows XP Professional, but you will not be able to read the log files.

### Hibernation

When the Sun Java Workstation W1100z or W2100z is running Windows XP Professional, the USB mouse or keyboard does not wake the system when it is in hibernate or standby mode.

To wake the system from hibernate or standby mode, press and release the platform power button.

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## Solaris-Specific Issues

The following issue applies to a Sun Java Workstation W1100z or W2100z running a Solaris x86 operating system.

### Next Generation Hard Drives

If you have Solaris X86 operating system running on one of the following hard drives:

- 73GB SCSI Manufacturing Part Number: 540-6213-02
- 146GB SCSI Manufacturing Part Number: 370-7579-02

and this hard drive is being used as a boot disk, you will need to use Solaris 9 x 86 Platform 9/04 (or later) in order to avoid problems with installation or operation of the operating system.

If you have a next generation HDD as the second non-boot or data disk, you can still run an earlier version of Solaris, however the disk size information will not be correct and data corruption could result. You will need to either install Solaris 9 x86 Platform Edition 9/04 or later, or add a patch to your current Solaris operating system in order to ensure data integrity.

The patch that you need to add to previous versions of Solaris is: 119443-01. This patch can be downloaded from:

<http://sunsolve.sun.com>

### DVD Dual Drive

If your workstation includes a DVD Dual drive and you are running a Solaris x86 operating system, the drive writes successfully to DVD-R and CD media, but will not write to DVD+R media. This is a known issue and is being investigated.

