



# Sun Ultra™ 40 M2 Workstation Product Notes

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Sun Microsystems, Inc.  
www.sun.com

Part No. 819-7565-11  
December 2006, Revision A

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# Sun Ultra 40 M2 Workstation

## Product Notes

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# General Information

## Supported Operating Systems

This section lists the supported operating system versions for the Sun Ultra 40 M2 Workstation.

- Preinstalled Solaris 10, 6/06
- RHEL 4 32-bit/64-bit Update 4
- RHEL 3 32-bit/64-bit Update 8
- SUSE Linux Enterprise (SLED 10) 64-bit
- Windows XP 32-bit SP2
- Windows XP 64-bit SP1

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## Hardware and BIOS Issues

The following hardware and BIOS issues apply to the Sun Ultra™ 40 M2 Workstation, regardless of the operating system (OS) installed on the workstation.

### Boot Summary screen becomes corrupted

This issue occurs when the user hits the F12 key for Network Boot during Sun splash screen on a system with the LSI 3081E HBA installed. The user can ignore this as the system will continue to Network Boot.

### SATA RAID and Option Card Limitations

SATA RAID has to be disabled if the option card's expansion ROM is greater than the available shadow memory.

For example, the Single Ultra-320 (1-Port) SCSI PCI-X card can only be used when onboard SATA RAID is disabled in the BIOS.

Enabling RAID for the onboard SATA drives with a U320 SCSI card installed will result in an expansion ROM not initialized BIOS error message and the U320 SCSI card might not function correctly.

## CMOS Checksum Error When Updating the BIOS

After updating to the BIOS on the Sun Ultra 40 M2 Workstation using the Tools and Drivers CD, a CMOS checksum error might be reported.

If this happens, do the following:

1. **Press the F2 key to go into the BIOS Setup Utility.**
2. **Select Load Setup Defaults.**
3. **Press the F10 key to save your settings and exit.**

## BIOS Setting Might Change When Updating the BIOS

After updating the BIOS on the Sun Ultra 40 M2 Workstation Tools and Drivers CD, the BIOS settings might be changed back to the defaults. If you have changed any BIOS menu items (such as enabling RAID), this setting might change back to disabled.

- **After flashing the BIOS, press the F2 key when the system boots to enter the BIOS Setup Utility and restore any individually changed BIOS menu items.**

## Setting Up the BIOS for the Secondary PCI-E Graphics Slot

The primary PCI-Express slot is the PCI-E1 Slot. If you would like to use the secondary PCI-Express x16 slot (PCI-E3), make the following changes to the BIOS:

1. **Boot the workstation with the video display connected to the primary graphics card slot.**
2. **When you see the Sun logo screen displayed, press F2 to enter the BIOS Setup Utility.**

### 3. Select the Advanced menu.

The entry PCI-E X16 VGA CARD SELECT defines which slot is the primary graphics slot. POST and BOOT information will be displayed to this card only.

### 4. Select PCI Express Slot 3 to enable the PCI-E 3 graphics slot.

### 5. Press the F10 key to save your changes and exit the BIOS.

The next time you reboot the workstation, the secondary graphics card will display output.

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## Pc-Check Diagnostic Issues

The following issues apply to the PC-Check Diagnostic software available on the Sun Ultra 40 M2 Workstation Tools and Drivers CD.

### USB Controller Test Fails

When running the USB controller test the stem might hang.

This PC-Check issue is fixed in the Tools & Drivers v1.1 CD.

### Pc-Check AC97 Test Error Message

The initial release of Pc-Check produces the following error message when running the AC97 audio test.

This system has either no audio capability or the audio is not compatible with PC-Check.

You can safely ignore this message.

### Pc-Check System Stress Hard Disk Test Fails

Pc-Check's System Stress Hard Disk Test fails on the following RAID array configurations:

- RAID array 0 (mirroring)

- RAID arrays 0+1 (stripe and mirroring)
- RAID array 5

When Pc-Check's System Stress Hard Disk Test fails, it displays the following error message:

```
A failure occurred in the Test Hard Disk. The System Stress
Test has failed. Please press any key to continue.
```

If this happens, disable the RAID array and rerun Pc-Check's System Stress Hard Disk test.

This issue is fixed in the Tools & Drivers v1.1 CD.

## Graphics Card Test Only Recognizes One Card

Pc-Check only recognizes the primary graphics card when running the graphics test. In order to test both cards in a two-card installation, switch the primary graphics card display to the secondary graphics card (see ["Setting Up the BIOS for the Secondary PCI-E Graphics Slot"](#) on page 4) and then re-run the graphics diagnostic test.

The functionality to test two cards might be added in a future release of Pc-Check.

## Digital Audio (SPDIF) Diagnostic Test

The initial release of Pc-Check does not contain a test for the SPDIF ports.

## TPM Diagnostic Test

The initial release of Pc-Check does not contain a TPM test for Infineon.

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## Solaris Issues

The following issues apply to Sun Ultra 40 M2 Workstations running the Solaris 10 operating system.



## Correct nge NIC Placement

This issue only applies to the Solaris™ 10 Operating System 6/06 version with a nge NIC. The nge NIC does not work in Solaris 10 when placed in the first boot order. When the nge NIC is installed in the first boot order the PXE will attempt to boot. If this should happen, you should place the nge NIC device after the hard disk in the BIOS.

## Warning Message When Booting Fail Safe Mode Using Solaris 10 6/06

This issue only applies to the Solaris™ 10 Operating System 6/06 version. When booting into Fail Safe Mode, the following warning message might display:

```
WARNING: BIOS microcode patch for AMD Athlon™ 64/Opteron™
processor erratum 131 was not detected; updating your system's
BIOS to a version containing this microcode patch is HIGHLY
recommended or errorneous system operation may occur."
```

You can safely ignore this message.

## Using Two Graphics Cards with Solaris 10, 6/06

This issue only applies to a clean reinstall of Solaris™ 10 Operating System 6/06 version. This issue does not apply to the preinstalled image that comes with your Sun Ultra 40 M2 Workstation. When you log in to a new Solaris 10 6/06 installation, the login attempt will fail and will result in garbled display graphics. There are two workarounds for this issue. Choose from one of the following:

### Workaround 1:

- 1. Reboot the system, but do not log into the system.**
- 2. Click the Options button, then select Reset Login Screen.**

The screen will reset, and you can then log in as usual.

If your screen displays garbled text, you need to reset the Xserver by pressing Cntrl +ALT + Backspace.

## Workaround 2:

Install the unbundled NVIDIA display drivers contained on the Tools and Drivers CD as follows:

1. **Use the command prompt to log in as root (superuser).**
2. **Insert the Tools and Drivers CD into the CD-ROM drive.**
3. **Run `install.sh` from the `/cdrom/cdrom0/drivers/sx86` directory.**
4. **Reboot the workstation.**
5. **Log in to the workstation using the CDE desktop one time before attempting to log in using JDS.**

All subsequent JDS logins will work.

## Enabling a Solaris Xserver Secondary Display (6357217)

The Solaris 10 Xserver default configuration only enables a primary display. To enable a primary and secondary display simultaneously, you need to install the Nvidia drivers located on the Sun Ultra 40 M2 Workstation Tools and Drivers CD. Use the `install.sh` script to add the second display to `/etc/X11/xorg.conf`.

## cdwrw Patch for DVD+RW and DVD-RW Media

The `cdwrw` utility that shipped with Solaris 10 6/06 does not fully support writing on DVD+RW and DVD-RW media. A patch is in the process of being released.

See CR6374677 and CR6373496 or check with your service representative regarding patch availability.

## Solaris 10x86 Patch for Daylight Savings Time

A Solaris patch has been released to address the change in daylight savings time. The patch number at the time of this writing is 118669-05.

You can access the patch at <http://www.sun.com/sunsolve>

# System Hang Using Two Graphics Cards With Solaris 10, 6/06

This issue only applies to a clean install or reinstall of Solaris™ 10 Operating System 6/06 version. The system will hang at the NFS message prompt.

If this happens, reboot the workstation.

## Solaris 10 Preinstalled Software Image

If you move a card from one PCI-Express slot to another, the instance for the old slot will still be remembered by the OS as `nvidia0` and the new slot will be assigned as `nvidia1`.

### Workaround:

- **Change the `/dev/nvidia0` link to point to `/dev/fbs/nvidia1` or**
- **Update the `/etc/path_to_inst` file as follows:**
  - a. **Open the `/etc/path_to_inst` file in a text editor:**

```
vi /etc/path_to_inst
```

- b. **Remove any `nvidia` entries from the file.**
- c. **Save and close the file.**
- d. **Do a configuration reboot by typing `b -r` at the boot command prompt.**

This assigns `nvidia0` to the new slot.

## Certain 1394 Devices Might Cause a System Panic

This is a known issue that affects certain 1394 devices. At the time of this writing, no patch-ID is available, but one is pending.

For details, you can search for bug ID 6260568 at:

<http://sunsolve.sun.com>

## Certain Non-compliant USB Hard Disks Might Cause a System Panic

This is a known issue that affects certain USB hard disks. At the time of this writing, no patch-ID is available, but one is pending.

For details, you can search for bug ID 6346270 at:

<http://sunsolve.sun.com>

## Time of Day Clock Error When Running `sys-unconfig`

A time of day clock error message might occur after running `sys-unconfig` and after subsequent date and time configurations.

- **Press F2 to continue the Solaris 10 Operating System configuration.**

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## Windows XP Issues

The following issue applies to Sun Ultra 40 M2 Workstations running a supported Windows operating system.

### USB Keyboard Response Returning From Standby S3 Mode

When returning from Standby S3 mode, the USB keyboard may not respond. If this should happen, you should unplug then reconnect the USB keyboard.

This BIOS issue is fixed in the Tools & Drivers v1.1 CD.

### Blank Screen After Booting XP Installation CD

This can happen if there are certain Linux partitions on the hard disk. If a blank screen occurs after booting from the XP installation CD, remove the Linux partitions on the hard disk.

To remove boot disk partitions, reboot the workstation with the Sun Ultra 40 M2 Workstation Tools and Driver CD and choose option 3 for the Erase Primary Boot Disk utility to wipe the entire disk clean.

## HD UAA Audio Bus Drivers XP 64-bit Error

When using HD UAA Audio Bus XP 64-bit drivers, you might receive a yellow exclamation mark error message. This is a error is related to Windows XP 64-bit drivers. Obtain the updated HD Audio Bus drivers at:

<http://support.microsoft.com/?kbid=901105>

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## Linux Issues

The following issues applies to Sun Ultra 40 M2 Workstations running a supported Linux operating system.

### X-Windows Get Stuck on Upper Left Corner in SLED 10 64bit's GNOME Interface After Loading Nvidia 9631 Display Drivers

SLED 10's GNOME windows get stuck on the upper left corner of the screen when using the GNOME interface. This is the default interface for SLED 10.

Use one of the two following workarounds to fix the problem:

#### Workaround 1:

- 1. At the login prompt, click on the Session area and pick KDE rather than GNOME.**
- 2. Log in after making this selection.**

The problem will not occur.

## Workaround 2:

Change NVIDIA Video drivers to 8776.

These drivers do not invoke the full GNOME functionality and thus do not have the problem.

To load these drivers:

1. **Boot the system**
2. **Open a terminal and type 'init 3'.**  
This stops the X-windows and puts you in text mode.
3. **Login as root**
4. **Place the Tools & Drivers CD in the CD drive.**
5. **Mount the CD by typing 'mount /dev/cdrom /mount location'.**
6. **cd to /mount location/drivers/linux/display/8776.**
7. **Go to the appropriate 32 bit or 64 bit subdirectory.**
8. **Install the driver by typing 'sh NVIDIA\*.run'**
9. **Follow the directions to install.**
10. **Reboot when done.**

## (RHEL 3 Update 8, 32-bit) Keystroke Repeats

When pressing a key, the keystrokes could auto-repeat. This issue is related to an out of sync Time Stamp Counter (TSC). The Linux kernel uses separate TSCs as a timing mechanism on each processor. When the TSCs drift out of sync, you could experience repeating keystrokes when a key is pressed. To resolve this, you should use one of the following workarounds.

## Workaround 1:

1. **Launch the Red Hat Start menu.**
2. **Select preferences, then keyboard.**
3. **Deselect the "keyboard repeats when key is held down" option.**

## Workaround 2:

- **Install Red Hat kernel version 2.4.21 - 47.0.1 or later.**

## (RHEL 3 Update 8, 32-bit) Kernel Panic Message

When installing RHEL 3 Update 8, 32-bit, and the correct BIOS setting are not loaded the system will display the following message:

```
kernel panic: IO-APIC + timer doesn't work!
```

If this happens, perform the following steps:

1. **Press F2 to enter system BIOS.**
2. **Change the "Advanced/Enable Multimedia Timer" option to NO.**
3. **Press F10 to save the changes.**
4. **Exit the system BIOS.**
5. **Reinstall RHEL3 Update 8, 32bit.**

