



# Sun Fire™ V60x and Sun Fire V65x Server Release Notes

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# Sun Fire V60x and Sun Fire V65x Server Release Notes

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These are the issues and advisories known to be outstanding for the Sun Fire™ v60x and Sun Fire V65x servers.

These release notes are divided into three sections:

- [“General Sun Fire V60x and V65x Information” on page 1](#)
- [“Hardware Issues” on page 3](#)
- [“Linux-specific Issues” on page 12](#)

For Solaris™ users of the Sun Fire V60x or V65x servers, refer to the *Sun Fire V60x and Sun Fire V65x Release Notes: Solaris Compatible Version (817-2876-xx)* for issues specific to the Solaris operating environment.

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## General Sun Fire V60x and V65x Information

General information regarding the Sun Fire V60x and Sun Fire V65x server installation, documentation and support is included in this section.

# Installation

Please refer to the *Sun Fire V60x and Sun Fire V65x Server User Guide* (817-2023-xx) and the *Sun Fire V60x and Sun Fire V65x Server Linux Operating System Installation Guide* (817-1956-xx) or the *Sun Fire V60x and Sun Fire V65x Server Solaris Operating System Installation Guide* (817-2875-xx) prior to installing the Sun Fire V60x and Sun Fire V65x servers.

# Documentation

The most up-to-date versions of all documentation and software available can be found online at the Sun Fire V60x or Sun Fire V65x product page:

<http://www.sun.com/servers/entry/V60x>

<http://www.sun.com/servers/entry/V65x>

and the Sun Fire V60x and Sun Fire V65x documentation link at:

<http://www.sun.com/products-n-solutions/hardware/docs/Servers/index.html>

# Support

For technical support, call the phone numbers listed below, according to your location.

United States Tel: 1-800-USA-4SUN (1-800-872-4786)

UK Tel: +44 870-600-3222

France Tel: +33 1 34 03 5080

Germany Tel: +49 1805 20 2241

Italy Tel: +39 02 92595228, Toll Free 800 605228

Spain Tel: +011 3491 767 6000

See the following link for US, Europe, South America, Africa, and APAC local country telephone numbers:

<http://www.sun.com/service/contacting/solution.html>

For general support and documentation on the Sun Fire V60x and Sun Fire V65x servers, see the following link:

<http://www.sun.com/supporttraining/>

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# Hardware Issues

The following issues apply to Sun Fire V60x and V65x servers that are running either a Linux or Solaris operating system:

- [“USB Keyboard, Mouse and Storage Devices” on page 3](#)
- [“PS/2 Mouse Configuration” on page 3](#)
- [“KVM \(PS/2 Keyboard-Video-Mouse\) Switch” on page 4](#)
- [“Drives” on page 4](#)
- [“Network Interface” on page 5](#)
- [“Platform Confidence Test \(PCT\)” on page 5](#)
- [“Memory Configuration Errors” on page 6](#)
- [“Memory DIMM Population Order” on page 6](#)
- [“Soft Reboot Errors” on page 7](#)
- [“Faulty Memory DIMMs” on page 9](#)

## USB Keyboard, Mouse and Storage Devices

- Do not connect a USB pointing device (mouse) or a USB storage device to the server prior to a network boot (PXE), as many boot servers are not compatible with USB devices.
- The USB ports are disabled until the operating system is booted and the USB drivers are installed. A PS/2 keyboard is required if a keyboard is necessary for initial boot-up and configuration.
- Some USB-connected CD-ROM devices perform unreliably on the Sun Fire V60x and V65x servers. Use the internal CD-ROM device when possible.

## PS/2 Mouse Configuration

A PS/2 pointing device (mouse) may be misidentified during operating system installation.

To correct the mouse configuration:

1. Type **setup** at the command prompt to run the setup tool.
2. Select the **Mouse configuration** option, then select the connected pointing device.
3. Save the change and exit the setup utility.

# KVM (PS/2 Keyboard-Video-Mouse) Switch

Some KVM switches may cause intermittent problems during Power-On Self Test (POST). Possible issues are as follows:

- The system may not respond to keyboard or mouse inputs.
- The system may hang, causing the watchdog timer to expire. This in turn causes a FRB-2 (Fault Resilient Booting) event. By default, if a FRB-2 event occurs (on redundant processor systems), the Boot-Strap-Processor will be disabled on the next boot.

To return a system with redundant processors to normal operation after an FRB2 event, follow the instructions below:

- 1. Reset or turn on the system.**
- 2. Press the F2 key to select SETUP as soon as the option appears on the screen.**
- 3. Once in the main page of the SETUP menu, use the arrow keys to select Processor Settings then press Enter.**
- 4. In the Processor Settings screen, select Processor Retest then select Enabled.**
- 5. Press the F10 function key to exit the SETUP menu and save changes.**

The system will then re-test both processors to make sure they are in working condition and bring both processors back to normal operation.

NOTE: The 'Processor Retest' feature will return to its default 'Disabled' condition, after this cycle is complete.

## Drives

- If you mix internal LVDS SCSI hard drives with different bus speeds in a single system, you may encounter problems. You may need to modify the SCSI Device Configuration settings to allow this type of configuration.
- You may encounter issues when booting from internal SCSI drives when an external SCSI device or an external SCSI array has been added.

To boot the system using internal drives, the SCSI BIOS settings may need to be modified for each channel. See example below:

- 1. To go into the SCSI BIOS settings, press the keys Ctrl + A (at POST, during the SCSI initialization phase).**
- 2. Once in the SCSI BIOS, select External Channel A AIC-7902 A slot at 00:04:07:00, then select the following: Configure/View SCSI Controller Settings and Advanced Configuration.**



3. In the Advanced Configuration menu, go to SCSI Controller Int 13 Support and select one of the Disabled options.
4. In the SCSI BIOS settings screen, select Internal Channel B AIC-7902 B at slot 00:04:07:01, then select the following: Configure/View SCSI Controller Settings and Advanced Configuration.
5. In the Advanced Configuration menu, go to SCSI Controller Int 13 Support and select the Enabled option if it is not already enabled.
6. Save the settings before exiting the menu.

## Network Interface

- The network interfaces are labelled 1 and 2. Refer to the server setup poster for the OS-dependent device assignments.
- Adding or removing network interface PCI cards may change the labelling order for the on-board network interfaces.
- Hardware detection on startup (Kudzu) reports the on-board Intel Ethernet interfaces as Generic e1000 devices, rather than detecting the actual brand name of the device that is installed.

## Platform Confidence Test (PCT)

If you are planning to run the Platform Confidence Test (PCT) from the Sun Fire V60x and V65x Diagnostic CD, you need to disable the Platform Event Filter, since this feature will trigger the Baseboard Management Controller (BMC) to shut down the system if the motherboard temperature exceeds the threshold during PCT.

The Platform Event filter is disabled by default. However, it is automatically enabled in the F2 Setup if the BMC LAN Management feature is enabled in the SSU (System Setup Utility).

To disable the Platform Event Filter:

1. **Reset or turn on the server.**
2. **Press the F2 key to select SETUP as soon as the option appears on the screen.**
3. **Select the Server menu on the SETUP screen.**
4. **Check to see if the Platform Event Filter is disabled.**
  - If the Platform Event Filter is disabled, it will not appear as an option in the Server screen.
  - If the Platform Event Filter is enabled, go to Step 4.

5. To disable the Platform Event Filter, select Platform Event Filter from the Server setup screen, press Enter, and select the Disable option.
6. Press the F10 function key to exit the SETUP menu and save changes.

## Memory Configuration Errors

If you have added, removed, or replaced a DIMM, and you encounter memory configuration errors during power-on self test (POST), do the following to clear the errors.

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**Note** – If the errors you see are DIMM population errors 8508, 8509 or 850A, you must reorder the DIMMs. See [“Memory DIMM Population Order”](#) on page 6 for more information.

---

1. Reset or turn on system.
2. Press the F2 key to select SETUP as soon as the option appears on the screen.
3. Once in the main page of the SETUP menu, use the arrow keys to select Advanced menu.
4. In the Advanced screen, select Memory Configuration option then press Enter.
5. In the Memory Configuration screen, select Memory Retest then select Enabled.
6. Press the F10 function key to exit the SETUP menu and save changes.

---

**Note** – The Memory Retest feature will return to its default Disabled condition after the memory test cycle is complete.

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## Memory DIMM Population Order

If you install modules with mixed memory sizes in your Sun Fire V60x or V65x server, you must install the single-wide memory modules (256 MB or 512 MB) in the lower numbered slots and the double-wide memory modules (1 GB or 2 GB) in the higher numbered slots.

If single-wide modules are installed in slots with higher numbers than double-wide modules, you will encounter one of the following messages during POST while the system is booting up:

Error 8508: A DIMM population error has been detected. Please swap DIMM pair 1A/1B with DIMM pair 2A/2B.

Error 8509: A DIMM population error has been detected. Please swap DIMM pair 1A/1B with DIMM pair 3A/3B.

Error 850A: A DIMM population error has been detected. Please swap DIMM pair 2A/2B with DIMM pair 3A/3B.

When you see these messages during POST, shut down the system and reinstall the DIMMs so that all of the single-wide DIMMs are in lower numbered slots than the double-wide DIMMs.

Refer to the *Sun Fire V60x and Sun Fire V65x Server User Guide* (817-2023-xx) for more information on how to correctly replace the DIMMs.

## Soft Reboot Errors

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**Note** – This note applies if you are using BIOS Release 2.0 v1161 or earlier. This bug has been fixed in the BIOS release 5.0 (v1175).

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After issuing a Soft Reboot, there is very small probability that the memory will not reset correctly. If the memory does not reset correctly, the system will log an error in the System Event Log, disable the bank of memory that did not reset correctly, and halt. Upon rebooting, the system will either appear to have no memory installed or will BOOT with one of the memory banks disabled.

If this occurs, perform one of the following procedures to reset the system, depending on how many DIMMs are in your system.

### For Systems With Four or More DIMMs

1. Turn on the system.
2. Press the F2 key to select SETUP when the option appears on the screen.
3. In the main page of the SETUP menu, use the arrow keys to select the Advanced menu.

4. In the Memory Configuration screen, select Memory Retest, then select Enabled.
5. Press the F10 key to exit the SETUP menu and save the changes.  
The system will now boot correctly.

## For Systems With Only Two DIMMs

1. Open the top cover and move the existing two DIMMs from their current bank to one of the other two banks.
2. Power on the system.
3. Press the F2 key to select SETUP when the option appears on the screen.
4. Once in the main page of the SETUP menu, use the arrow keys to select the Advanced menu.
5. In the Memory Configuration screen, select Memory Retest, then select Enabled.
6. Press the F10 key to exit the SETUP menu and save the changes.  
The system reboots automatically.
7. Power off the system.
8. Move the DIMMs back to their original location.

---

**Note** – If this step is skipped the following error messages may appear on the screen and on the System Event Log:

```
Error 8502:  Bad or missing memory in Slot 1A  
Error 8506:  Bad or missing memory in Slot 1B
```

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9. Replace the top cover.
10. Power on the system.  
The system will boot correctly on subsequent reboots.

---

**Note** – The Memory Retest feature returns to its default Disabled condition after the memory test cycle is complete.

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# Faulty Memory DIMMs

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**Note** – This note applies if you are using BIOS release 5.0 (v1175) or later.

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If you don't add, remove or replace any memory DIMM modules and you encounter memory errors during POST after issuing a soft reset, hard reset or powering on the system, then the BIOS is detecting faulty memory DIMM modules in the system during memory test in POST.

The BIOS will log an error in the System Event log, disable the memory bank that contains the faulty memory DIMM modules and reset the system. Upon rebooting, the system will either appear to have no memory installed or will boot with one of the memory banks disabled.

If this occurs, perform one of the following procedures to reset the system after replacing the faulty memory DIMM modules. Choose the procedure that corresponds with how many DIMMs are in your system.

## For Systems With Four or More DIMMs

1. Turn on the system.
2. Boot the system with the Diagnostics CD in the CD-ROM drive to enter the Diagnostic CD menu or press the F4 key at the initial bootup screen to enter the Service Partition menu.
3. Invoke the SEL manager.
  - a. Use the arrow key to select the System Utility menu and press Enter.
  - b. Choose the Run System Setup Utility menu.
  - c. Press any key when prompted.
  - d. Choose the SEL Manager option.
4. View the SEL Manager listing to determine which faulty DIMM is detected by the BIOS.
5. Choose the Exit option from the File menu of the SEL manager.
6. Exit out of the SSU menu and Diagnostics CD main menu.
7. Turn off the system.
8. Open the top cover.

9. Remove the faulty DIMM and replace it with the good DIMM (read the silkscreen on the motherboard for the DIMM position).

Refer to the *Sun Fire V60x and Sun Fire V65x Server User Guide* (817-2023-xx) for information on how to correctly replace the DIMMs.

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**Note** – Make sure to replace only the faulty DIMM as indicated in the SEL Manager.

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10. Replace the top cover.
11. Power on the system.
12. Press the F2 key to select SETUP when the option appears on the screen.
13. In the main page of the SETUP menu, use the arrow keys to select the Advanced Menu.
14. In the Memory Configuration screen, select Memory Retest and select Enabled.
15. Press the F10 key to exit the SETUP menu and save the changes.
16. The system will now boot correctly with no memory errors.

## For Systems With Only Two DIMMs

1. When you turn on the system, the BIOS will issue a sequence of beeps to indicate a memory error detected in POST and the system will not boot (no video will be displayed on the screen either).
2. Turn off the system.
3. Remove the two faulty DIMMs from Slot 1A and Slot 1B.
4. Insert two good DIMMs in Slot 2A and Slot 2B.  
Refer to the *Sun Fire V60x and Sun Fire V65x Server User Guide* (817-2023-xx) for information on how to correctly replace the DIMMs.
5. Power on the system.
6. Press the F2 key to select SETUP when the option appears on the screen.
7. In the main page of the SETUP menu, use the arrow keys to select the Advanced Menu.
8. In the Memory Configuration screen, select Memory Retest and select Enabled.
9. Press the F10 key to exit the SETUP menu and save the changes.
10. The system reboots automatically.

11. Power off the system.

12. Move the DIMMs back to Slot 1A and Slot 1B.

---

**Note** – Note: If this step is skipped the following error messages may appear on the screen and on the System Event Log:

Error 8502: Bad or missing memory in slot 1A

Error 8506: Bad or missing memory in slot 1B

---

13. Replace the top cover.

14. Power on the system.

The system will boot correctly on subsequent reboots.

---

**Note** – The Memory Retest feature returns to its default Disabled condition after the memory test cycle is complete.

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## 3.06 GHz Processor

The 3.06 GHz processor (Sun part number 595-6944-01) is now available for the Sun Fire V60x server. Previously, this processor was only available for the Sun Fire V65x server.

You can order the Sun Fire V60x server configuration with the processor already installed or order the processor as a customer option (Sun part number X5121A). The warranty replacement part number is #370-6045.

## 3.2 GHz Processor

The 3.2 GHz processor (Sun part number 370-6465-01) is now available for the Sun Fire V60x and Sun Fire V65x servers.

You can order the servers configured with the processor already installed or order the processor as a customer option (Sun part number X5138A). The warranty replacement part number is #370-6048.

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# Linux-specific Issues

The following issues are specific to Sun Fire V60x and V65x servers running a Linux operating system:

- “Hardware RAID” on page 12
- “Linux Notices, Linux Kernel” on page 12
- “Remote Management” on page 13
- “Network Interface” on page 13
- “USB Keyboard” on page 13
- “Linux Operating System Installation Guide” on page 13

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**Note** – For Solaris users of the Sun Fire V60x or V65x servers, refer to the *Sun Fire V60x and Sun Fire V65x Release Notes: Solaris Compatible Version (817-2876-xx)*.

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## Hardware RAID

Problems have been reported with the Adaptec HostRAID when running the Red Hat Linux operating system. It is recommended that you use the hardware RAID controller option or the software RAID capabilities of Red Hat Linux instead of the integrated Adaptec HostRAID capabilities of the Adaptec 7902 SCSI controller.

You can find additional information about Adaptec HostRAID at <http://www.adaptec.com/>

## Linux Notices, Linux Kernel

- When upgrading RAM from 4 GB or less to more than 4 GB, you must run the bigmem kernel if you want to use all of the available memory.
- You can modify the default kernel from either `/etc/lilo.conf` or `/boot/grub/grub.conf`. Refer to your operating system documentation for more information.
- Single CPU systems require SMP capable kernels to support hyperthreading.  
Note: After disabling hyperthreading, make sure to select the uni-processor kernel at the boot loader prompt.



- When Red Hat Linux boots, the following benign error message can be safely ignored:  
`kmod: failed to exec /sbin/modprobe -s -k scsi_hostadapter, errno = 2`

## Remote Management

- When you use the `dpccli` remote management tool to power off the server, the server will not shut down gracefully. Make sure to save and close all running applications before shutting down the server, in order to avoid data loss.
- Using the `dpccli` utility with a very long input script file may cause the `dpccli` script to exit unexpectedly or report network connection errors. If this occurs, split the input script file into several smaller files and execute them sequentially.

## Network Interface

Disconnecting an Ethernet cable from Network 2 may interrupt network connectivity on other network interfaces.

Run the following commands to restore connectivity to other connected network interfaces:

```
/etc/rc.d/init.d/network stop  
/etc/rc.d/init.d/network start
```

## USB Keyboard

Do not connect a USB keyboard to the server if the LILO boot loader is installed. You might also have difficulty with using a USB mouse with the LILO boot loader.

## Linux Operating System Installation Guide

In the *Sun Fire V60x and Sun Fire V65x Server Linux Operating System Installation Guide* (817-1956-10), Step 21 on Page 4 reads:

21. Compile the `aic79xxx` driver by typing the following command.

```
rpm -bb /usr/src/redhat/SPECS/aix79xx.spec
```

The command should read:

```
rpm -bb /usr/src/redhat/SPECS/aic79xx.spec
```

