



Sun Blade™ 100 Motherboard Update and Sun PGX64 Patch Procedures

For Sun Blade 100 Systems with the Solaris™ 8
10/00, 1/01, or 4/01 Operating Environments

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Sun Blade 100 Motherboard Update and Sun PGX64 Patch Procedures

Procedure Overview and Patch Description

Installing a new motherboard into the Sun Blade™ 100 may cause the system monitor to go blank if the system is using certain Solaris™ releases. A patch resolves the problem. To order the patch kit, contact your Sun service representative.

This procedure is only required for Sun Blade 100 workstations with motherboard part number 375-3106 *and* one of these Solaris releases:

- Solaris 8 10/00
- Solaris 8 1/01
- Solaris 8 4/01

These procedures should only be performed by experienced system administrators or authorized Sun service representatives.

Note – There are two main procedures in this document. Each procedure is distinctly different depending on the system configuration. Be sure to follow the correct procedure for your system.

- Patch Procedure 1 is necessary if your Sun Blade 100 workstation *is currently operating* with Solaris 8 10/00, 1/01, or 4/01 and requires a new motherboard, part number 375-3106.

- Patch Procedure 2 is necessary if you have a workstation that already has a motherboard, part number 375-3106, with Solaris 8 7/01 or later installed, *and you want to install an earlier version of Solaris 8 (10/00, 1/01, or 4/01).*

Identifying the Motherboard

All motherboards that require the patch will have part number 375-3106 on a label or silk-screened onto the board. See FIGURE 1.

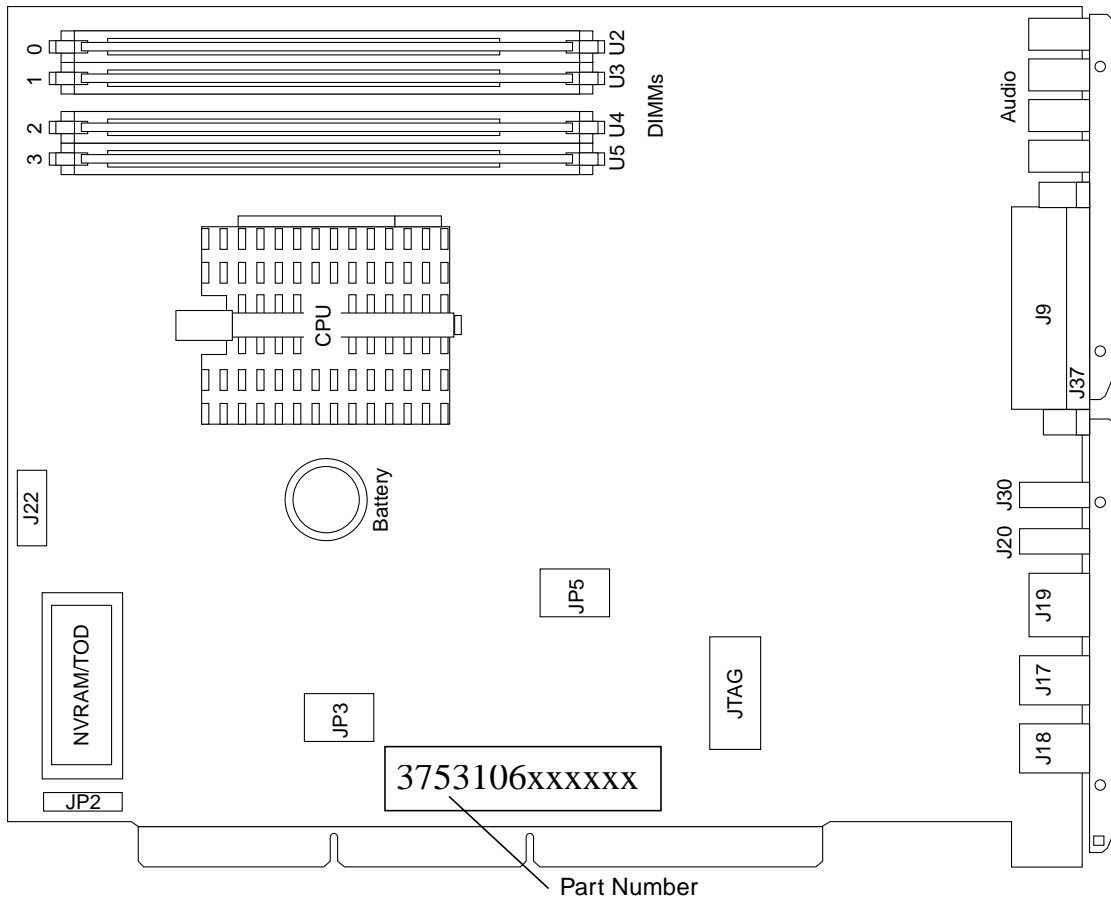


FIGURE 1 The Motherboard Part Number Label or Silkscreen is Near the Edge Connector

Removing and Replacing the Motherboard, CPU, and DIMMs

Required Tools and Documentation

- A #2 Phillips screwdriver
- *Sun Blade 100 Service Manual*, 806-3416

Follow the procedures in the *Sun Blade 100 Service Manual*, Chapter 8, “Removing and Replacing the Motherboard and Related Components.”

The service manual was provided on a CD-ROM that shipped with your workstation. The service manual is online at:

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

Click the following links:

Additional Hardware Documentation -> Desktop & Workstation -> Sun Blade Workstations. Then click on the link for the Sun Blade 100.

Motherboard Replacement Procedure

- 1. Follow the procedures in the *Sun Blade 100 Service Manual* to remove the CPU and DIMMs from the original motherboard.**
- 2. Install the CPU and DIMMs onto the new motherboard.**
- 3. Install the new motherboard into the Sun Blade 100 workstation.**
- 4. Connect all the cables to the system.**

Patch Procedure 1: Installing the Sun PGX64 Patch on Sun Blade 100 Workstations with Solaris 8 10/00, 1/01, or 4/01

Required Tools

- Sun PGX64 CD

Before You Begin

Only use this procedure if your Sun Blade 100 workstation *is currently operating with Solaris 8 10/00, 1/01, or 4/01.*

Adding the PGX64 Patch

1. **Power on the system.**
2. **As soon as you see the Sun Blade 100 system banner, press Stop-A.**

```
Sun Blade 100 (UltraSPARC-IIe), Keyboard Present
Copyright 1998-2002 Sun Microsystems, Inc. All rights reserved.
OpenBoot 4.6, 128 MB memory installed, Serial #516xxxxxx.
Ethernet address 0:x:xx:xx:xx:xx, Host ID: 8x1x3xxx.
```

The system stops loading the Solaris operating environment and displays the `ok` prompt.

3. **Boot the system in single user mode by typing:**

```
ok boot -s
```

The system boots and asks for your root password.

```
Resetting...  
...  
INIT: SINGLE USER MODE  
Type control-d to proceed with normal startup  
(or give root password for system maintenance)
```

4. Type the root password and press the Enter key.

The system displays the # prompt indicating that you are superuser.

5. Insert the PGX64 CD into the CD-ROM drive.

6. At the # prompt, type:

```
# mkdir /cdrom
```

7. Type:

```
# cd /
```

8. To mount the CD-ROM, type:

```
# mount -F hsfs /dev/dsk/c0t1d0s0 /cdrom
```

9. To access the directory on the CD-ROM which contains the patches, type:

```
# cd /cdrom/Solaris_8/Patches
```

10. Type `ls` to determine the latest patch revision contained on the CD-ROM:

```
# ls  
108606-09
```

11. Type the `patchadd` command using the exact patch number in the `/Patches` directory:

```
# patchadd 108606-09
```

The system shows the packages being added and returns you to the command prompt.

12. Power off the system.

The patch procedure is complete.

Patch Procedure 2: Installing Earlier Solaris 8 Operating Environments and the Sun PGX64 Patch on Sun Blade 100 Workstations with Solaris 8 7/01 or Later

Use this procedure if you have a workstation that has a motherboard part number 375-3106 with Solaris 8 7/01 (or later) installed and you want to install Solaris 8 10/00, 1/01, or 4/01.

Required Tools

- Solaris 8 10/00, 1/01, or 4/01 media kit
- Sun PGX64 CD

Recommended TTY Connection Procedure

If possible, you should use a TTY connection to install the Solaris 8 operating environment and the PGX64 patch.

If you don't use the TTY procedure, you must complete an immediate system shutdown after installing Solaris 8 10/00, 1/01, or 4/01. Therefore, you may have to run `fsck` to clean the file system. The immediate shutdown is necessary because the PGX 64 patch is added after installing the Solaris 8 operating environment and the system monitor is blank until the PGX64 patch is installed.

If you use the TTY connection to install the Solaris 8 operating environment and the PGX64 patch, you can complete an orderly shutdown procedure and avoid the blank monitor problem and any file system repairs.

1. Power on the Sun Blade 100 workstation.

Note – If you will *not* use a TTY connection, begin your procedure with “Installing the Solaris 8 Operating Environment” on page 8.

2. At the `ok` prompt, type `printenv` to check the OpenBoot PROM parameters for the input and output devices:

```
ok printenv
```

3. Set the `input-device` to `TTYA`:

```
ok setenv input-device TTYA
```

4. Set the `output-device` to `TTYA`:

```
ok setenv output-device TTYA
```

5. Reset the OpenBoot PROM parameters:

```
ok reset-all  
resetting...
```

The TTY procedures are complete for the Sun Blade 100 system. Now set the remote console to communicate with the Sun Blade 100 system.

6. Connect the remote console device to the TTYA serial port.

7. Using the remote console, access the `ok` prompt and boot the Sun Blade 100 system in single user mode:

```
ok boot -s
```

Both systems are now ready for the Solaris 8 installation and the PGX64 patch installation.

Installing the Solaris 8 Operating Environment

1. Install the Solaris 8 operating environment by following the directions provided in your Solaris media kit.

Note – Following the Solaris installation, the workstation monitor is blank. *If you are not using a TTY connection*, an immediate shutdown sequence is required before you can add the PGX64 patch. If you *are* using a TTY connection, an orderly shutdown is possible.

2. If you are using a TTY connection, halt the Sun Blade 100 system by typing `sync` and `halt` at the remote console:

```
# sync
# halt
```

Skip Step 3 and proceed with PGX64 patch installation.

3. If you are *not* using a TTY connection:
 - a. Press and hold the power button for four seconds to power off the Sun Blade 100 system.
Wait at least five seconds before powering on the system.
 - b. Power on the Sun Blade 100 system again by pressing the power button.

Note – You may need to run the `fsck` command to clean the file system after the power off and power on sequence.

Adding the Sun PGX64 Patch

1. If you have not already powered on the Sun Blade 100 workstation, power on the workstation now.

2. As soon as you see the Sun Blade 100 system banner, press Stop + A.

```
Sun Blade 100 (UltraSPARC-IIe), Keyboard Present
Copyright 1998-2002 Sun Microsystems, Inc. All rights reserved.
OpenBoot 4.6, 128 MB memory installed, Serial #516xxxxxx.
Ethernet address 0:x:xx:xx:xx:xx, Host ID: 8x1x3xxx.
```

The system stops loading the Solaris operating environment and stops at the ok prompt.

3. Boot the Sun Blade 100 system in single user mode by typing:

```
ok boot -s
```

The system boots and asks for your root password.

```
Resetting...
...
INIT: SINGLE USER MODE
Type control-d to proceed with normal startup
(or give root password for system maintenance)
```

4. Enter the root password and press the Enter key.

The system displays the # prompt indicating that you are superuser.

5. Insert the PGX64 CD into the CD-ROM drive.

6. At the # prompt, type:

```
# mkdir /cdrom
```

7. Type:

```
# cd /
```

8. To mount the CD-ROM, type:

```
# mount -F hsfs /dev/dsk/c0t1d0s0 /cdrom
```

9. To access the directory on the CD-ROM which contains the patches, type:

```
# cd /cdrom/Solaris_8/Patches
```

10. Type `ls` to determine the latest patch revision contained on the CD-ROM:

```
# ls
108606-09
```

11. Type the `patchadd` command:

```
# patchadd 108606-09
```

The system shows the packages being added and returns you to the command prompt.

12. If you are using a TTY connection, redirect the system to the OK prompt by typing:

```
# sync
# halt
```

If you are using a TTY connection, you should reset the Sun Blade 100 OpenBoot PROM `input-device` and `output-device` parameters to keyboard and screen.

13. Set the Sun Blade 100 `input-device` to keyboard:

```
ok setenv input-device keyboard
```

14. Set the Sun Blade 100 `output-device` to screen:

```
ok setenv output-device screen
```

15. Reset the Sun Blade 100 OpenBoot PROM parameters:

```
ok reset-all
resetting...
```

The Sun Blade 100 workstation reboots.