

## Installing the Adapter

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This chapter tells you how to install the Sun Quad FastEthernet SBus adapter in your system and how to verify that it has been installed correctly.

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**Note** – Refer to your system installation or service manual for detailed instructions for the following tasks.

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1. **Power off your system, using the standard shut down procedures described in *Solaris 2.x Handbook for SMCC Peripherals*.**  
The *Solaris 2.x Handbook for SMCC Peripherals* is shipped with the Solaris operating environment software and is available in the on-line AnswerBook™ documentation.
2. **Open the system unit.**
3. **Attach the adhesive copper strip of the wrist strap to the metal casing of the power supply. Wrap the other end twice around your wrist, with the adhesive side against your skin.**
4. **If you are replacing an SBus adapter with the Sun Quad FastEthernet SBus adapter, remove the old adapter now.**
5. **Install the Sun Quad FastEthernet SBus adapter in the selected SBus slot.**
6. **Detach the wrist strap and close the system unit.**
7. **Connect Ethernet cables to the Sun Quad FastEthernet SBus adapter and to an Ethernet network.**

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## Verifying the Installation

After you have installed the Sun Quad FastEthernet SBus adapter, but *before* you boot your system, perform the following tasks to verify the installation. Refer to the *Solaris 2.x Handbook for SMCC Peripherals* manual or your Solaris documentation for the detailed instructions.

1. **Power on the system, and when the banner appears, press the Stop-A keys to interrupt the boot process and get to the `ok` prompt.**
2. **Use the `show-devs` command to list the system devices.**

You should see lines in the list of devices, similar to the example below, specific to the Sun Quad FastEthernet SBus adapter:

```
ok show-devs
...
/sbus@1f,0/SUNW,qfe@1,8c30000
/sbus@1f,0/SUNW,qfe@1,8c20000
/sbus@1f,0/SUNW,qfe@1,8c10000
/sbus@1f,0/SUNW,qfe@1,8c00000
...
```

In this example, the `SUNW,qfe@1` entries identify the adapter's four Ethernet devices on a Sun Ultra 1 system with an OpenBoot PROM, revision 3.x.

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**Note** – In the example above, the number 1 following `SUNW,qfe@` corresponds to the SBus slot in which the Sun Quad FastEthernet SBus adapter resides.

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If you do not see the devices listed, check that the adapter is properly seated and, if necessary, reinstall the adapter.

### *Diagnostics Testing*

- For Sun Quad FastEthernet SBus adapter diagnostics testing on systems running Solaris 2.4, see “Using the SunDiag System Exerciser” on page 47.
- For Sun Quad FastEthernet SBus adapter diagnostics testing on systems running Solaris 2.5, 2.5.1, or 2.5.1 Hardware: 4/97, refer to the *SunVTS User's Guide*.

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## Examining Network Activity

After you have installed the Sun Quad FastEthernet SBus adapter, but *before booting the system*, verify the installation by examining the network interfaces with the OpenBoot PROM `watch-net-all` command.

Make sure that the interfaces are connected to an active network.

- **Examine network activity and incoming network packets by typing `watch-net-all` at the `ok` prompt.**

The `watch-net-all` command monitors network traffic on all network interfaces in the system. In the example below, the `watch-net-all` command tests all four of the adapter's interfaces, two of which are connected to a network.

```
ok watch-net-all
/sbus@1f,0/SUNW,qfe@1,8c30000
Internal loopback test -- succeeded.
Transceiver check -- failed

/sbus@1f,0/SUNW,qfe@1,8c20000
Internal loopback test -- succeeded.
Transceiver check -- passed
Looking for Ethernet Packets.
'.' is a Good Packet. 'X' is a Bad Packet.
Type any key to stop.
..... (Press any key to continue.)

/sbus@1f,0/SUNW,qfe@1,8c10000
Internal loopback test -- succeeded.
Transceiver check -- failed

/sbus@1f,0/SUNW,qfe@1,8c00000
Internal loopback test -- succeeded.
Transceiver check -- passed
Looking for Ethernet Packets.
'.' is a Good Packet. 'X' is a Bad Packet.
Type any key to stop.
..... (Press any key to continue.)
```

In addition to testing the adapter's interfaces, the `watch-net-all` command may also test other network devices on the system.

The network speed is the same as the speed of the network to which your system is connected. See the section "Forcing Network Speed Between 10 Mbps and 100 Mbps" on page 21 for more detailed information about speed selection.

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## Changing the Device Names on Solaris 2.4 Systems

The device name of newer SBus cards is identified by a `SUNW,` prefix. If your system is running the Solaris 2.4 operating system, it will not recognize these device names. Perform the following tasks to set up your system so the device driver can recognize the Sun Quad FastEthernet SBus adapter.

**1. At the `ok` prompt, type:**

```
ok setenv use-nvramrc? true
ok show-devs
```

The `show-devs` command lists the system devices. You should see the full path name of the hme channels, similar to the example below:

```
/sbus@1f,0/SUNW,qfe@1,8c30000
/sbus@1f,0/SUNW,qfe@1,8c20000
/sbus@1f,0/SUNW,qfe@1,8c10000
/sbus@1f,0/SUNW,qfe@1,8c00000
```

**2. Type:**

```
ok nvedit
```

3. Type the following, spaces and quotation marks included, pressing the Return key at the end of all but the last line.

```
0: probe-all install-console banner
1: cd <full path to channel 1>
2: " qfe" nameprop
3: device-end
4: cd <full path to channel 2>
5: " qfe" nameprop
6: device-end
7: cd <full path to channel 3>
8: " qfe" nameprop
9: device-end
10: cd <full path to channel 4>
11: " qfe" nameprop
12: device-end
```

4. Press the Control-C keys after typing the final device-end.  
5. At the ok prompt, type:

```
ok nvstore
ok reset-all
```

Your system will reset and the banner will appear.

6. Press the Stop-A keys to get to the ok prompt.  
7. At the ok prompt, type show-devs to list your system devices and verify that the name property was changed correctly.

You should see the full path name of the qfe device, *excluding* SUNW prior to qfe, similar to the example below:

```
/sbus@1f,0/qfe@1,8c30000
/sbus@1f,0/qfe@1,8c20000
/sbus@1f,0/qfe@1,8c10000
/sbus@1f,0/qfe@1,8c00000
```

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## Rebooting the System

After you have examined the network activity, perform a reconfiguration boot on your system so the operating environment can recognize the Sun Quad FastEthernet SBus adapter.

- **Perform a reconfiguration boot on the system.**

```
ok boot -r
```

Refer to the *Solaris 2.x Peripheral's Handbook* for more information.