PowerLeap PL-370SMP™ *Installation Guide*

Socket 370 Server/Workstation CPU Upgrade Adapter

Before You Start...

- Check the website of your system or motherboard manufacturer to see if they are offering an updated BIOS version for your system. If you need to upgrade your system BIOS, do so before removing your old CPU.

  For more information about BIOS upgrades, refer to "Upgrading Your Computer's BIOS" later in this document.

- Select the core voltage and frontside bus speed for your new CPU by configuring jumper settings on the PL-370/SMP.

- Unplug your system and remove the cover.

PL-370/SMP Jumper Settings

SW 1-3: Core Voltage Selection

ON	1.30V	ON	1.40V
ON	1.45V	ON	1.50V **(default)**
ON	1.55V	ON	1.60V
ON	1.65V	ON	1.70V
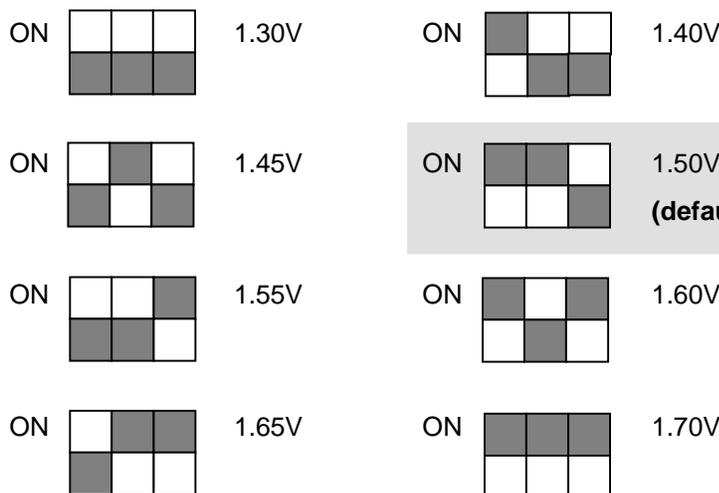
SW 4: Frontside Bus (FSB) Speed Selection

ON	100MHz FSB **(default)**	ON	133MHz FSB

Note: This setting depends on the motherboard circuitry design: some VIA 694 chipset-based SMP motherboards can only work stably at 100MHz, not 133MHz.

What is the PowerLeap PL-370/SMP?

The PowerLeap PL-370/SMP™ is an innovative CPU upgrade adapter for Socket 370 (Celeron™- and Pentium III™-based) servers/workstations. With the PL-370/SMP, you can obtain significantly faster performance (up to 1.4GHz) from your server/workstation by upgrading to Intel Pentium III-S™ ("Tualatin" core, 512KB L2 cache) processors. In addition to support for dual processing (with Intel Pentium III-S 1.4/1.26/1.13GHz CPUs), the PL-370/SMP™ also offers a single processor upgrade solution (using an Intel Celeron 1.4GHz CPU).

Installation

Installing the PL-370/SMP™ is quick and easy: First, remove the original heatsink/fan units and processors from the motherboard's processor sockets. Next, connect the power cable to the PL-370/SMP™. Finally, insert the PL-370/SMP™ into the motherboard's processor socket, apply thermal compound to the processor, install the heatsink/fan, and make power connections.
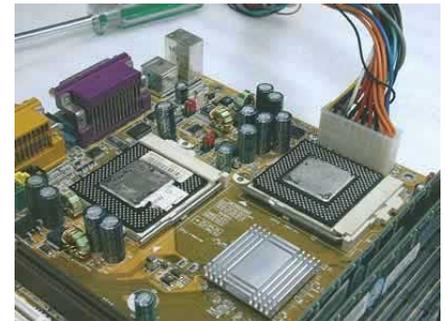
Removing the original heatsink/fan units and processors from the CPU sockets:

The original processors (with installed heatsinks and fans).
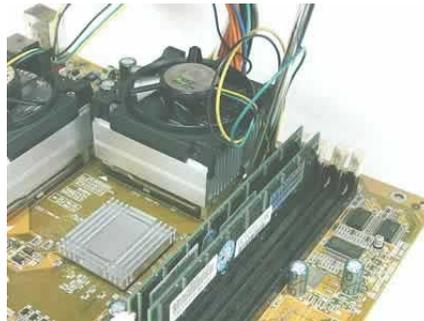
Removing the heatsink and fan from the processor.

The original processors after removing the heatsinks and fans.

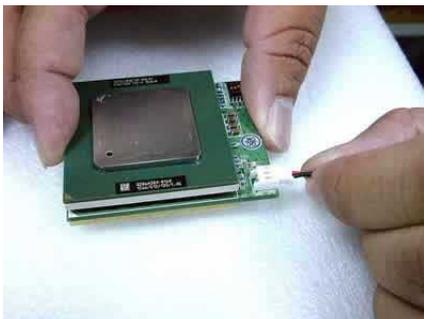**Examining the PL-370/SMP™ and connecting the power cable:**

The PL-370/SMP with new processor (top view).

The PL-370/SMP with processor (side view).

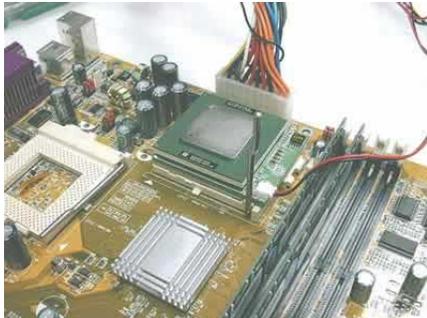*Making certain the processor is firmly inserted into the PL-370/SMP.*

Connecting the power cable to the PL-370/SMP.

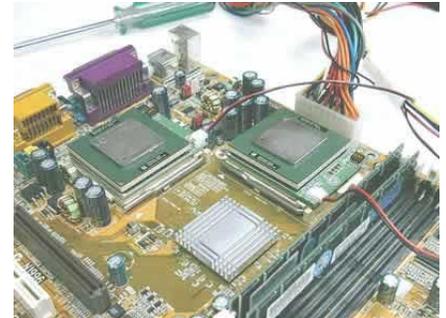*The PL-370/SMP with connected power cable.*

Installing the PL-370/SMP™ in the motherboard's processor socket(s):
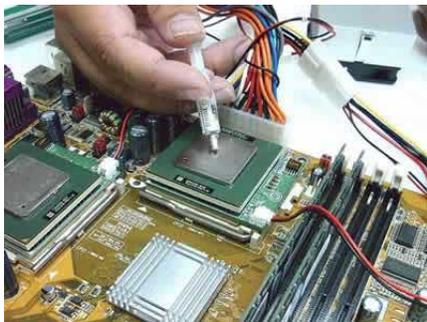

Inserting the PL-370/SMP in a processor socket.

The PL-370/SMP installed in a processor socket.

A PL-370/SMP installed in each processor socket.

Applying thermal compound to the processor.

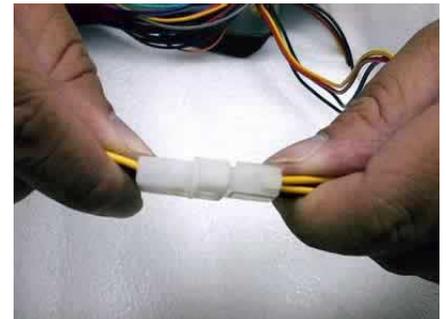*The PowerLeap heatsink and fan installed on the PL-370/SMP.*

The PowerLeap heatsink and fan installed on the PL-370/SMP.

A PowerLeap heatsink and fan installed on each PL-370/SMP.

Connecting the power cable for the PL-370/SMP's fan to the motherboard.

Connecting the PL-370/SMP's power cable to an unused power connector from the computer's power supply.

Troubleshooting

- If the computer won't boot (blank screen) with the PL-370/SMP™ installed, most likely the CPU is NOT inserted firmly in the upgrade adapter. Also make sure that you have selected the correct frontside bus speed for the new processor.

- If the system stops after memory counting or during system initialization, use more conservative BIOS settings for the main memory and cache memory (for example, change the "CL=2" to "CL=3"), and load the "Fail-Safe" or "BIOS Default Values" option in the BIOS setup. For more information, please refer to the BIOS Guide links listed below.

- If your PL-370/SMP encounters stability problems (i.e., periodic system freezes), it should be the result of *CPU overheating*. Please make sure the heatsink is properly connected and the fan is working. If overheating is suspected, you need to use "thermal compound" to improve the heat dissipation. We suggest that you read here (www.arcticsilver.com) for more details.

- SoundBlaster audio card users: please upgrade to the latest drivers, or the system may not work normally. This is a known problem with SoundBlaster cards when the CPU is changed. Check here: www.soundblaster.com/support/drivers/.

- For Adobe Photoshop 5.5 (or later) crashes or freezes, Adobe suggests moving the Extensions Folder out of the Plug-Ins folder. See www.adobe.com/support/techdocs/2256a.htm for more details.

- If your BIOS can't detect and report the new CPU speed and type (or displays an error message during POST), but the system otherwise boots and operates normally, please just ignore the message. The old BIOS was programmed long before the newer CPU became available. This won't affect the performance or compatibility at all. Please use benchmarking software such as WCPUID (www.h-oda.com) or SiSoftware Sandra (www.sisoftware.demon.co.uk/sandra/index.htm) to identify the new CPU.

Visit our online technical support area at www.powerleap.com/support.

Upgrading Your Computer's BIOS

Some motherboards may require a BIOS upgrade in order to work with the latest Pentium III and Celeron CPUs. For information about getting a BIOS upgrade for your computer system, start by visiting the brand-name manufacturer's web site. *Do this with your old CPU installed in the motherboard.*

BIOS upgrades may be downloaded from the system vendor or the motherboard maker's website(s). If you can't find BIOS upgrade information there, try the following:

- Many brand-name computer manufacturers use OEM motherboards. Check the motherboard maker's ID, then go to their site to look for a BIOS upgrade. Look for upgrades at the sites of your motherboard's original BIOS manufacturer: AMI (www.amibios.com), Award (www.award.com), MR BIOS (www.mrbios.com), and Phoenix (www.ptltd.com) produce popular BIOS software.

- Wim's BIOS Page (www.wimsbios.com) discusses BIOS flashing in detail, and so do Lost Circuits (www.lostcircuits.com/advice/bios.html) and FlashBIOS (www.flashbios.org/). The BIOS Setup Information Guide (www.matrix-bios.nl/frames.html), Tom's Hardware BIOS Guide (www.tomshardware.com/bios.html), and the BIOS Optimization Guide (http://www.rojakpot.com/bog.aspx) also offer a wealth of BIOS information.

Important! When installing the latest BIOS for your system, be sure to follow the BIOS upgrade instructions very carefully.