PowerLeap® PL-AXP™ Quick Start Guide

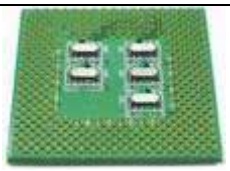
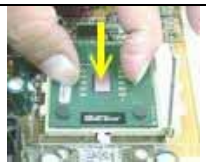
Thank you for purchasing the PowerLeap **PL-AXP™**. The **PL-AXP** allows you to
(1) **Upgrade** older AMD Athlon/Duron CPUs (Socket 462, aka Socket A) to the modern AMD Athlon XP and MP CPUs. Additionally, you can use the PL-AXP to achieve 13X~24X multiplier settings.
(2) **Unlock** several (*not all*) new Athlon XP CPU multipliers (5.5X—12.5X). By unlocking your AMD Athlon XP with the PL-AXP, you can easily increase your CPU and FSB (Front-Side Bus) speeds to enhance your system's overall performance.

Upgrading a Desktop PC CPU (AMD Athlon/Duron/Athlon XP):

The CPU upgrade procedure for the PL-AXP™ is as follows:
1) Update the BIOS to the latest version. (Use the old CPU to do this.)
2) Shut down the system, must unplug the power cord, and remove the heatsink/fan with the old CPU.
3) Insert the new CPU onto the PowerLeap CPU upgrade adapter.
4) Put the PowerLeap CPU upgrade adapter into the mainboard's CPU ZIF socket. We suggest using a new heatsink and fan for the new CPU, to get better heat dissipation.
5) Use the "CPU-Z™" utility to verify the upgrade is running well. http://www.cpuid.com/cpuz.php

Updating Your Computer's BIOS for the AMD CPU Upgrade (PL-AXP™):

Your system may require a BIOS upgrade in order to work with the latest CPU Upgrade. BIOS upgrades may be downloaded from the system vendor or the motherboard maker's website. Make sure you install the latest BIOS for your system (do this with your old CPU installed in the motherboard), and follow the BIOS upgrade instructions very carefully. Turn off "CPU control" in the BIOS (SoftMenu) before installing the new CPU upgrade. AMI (www.amibios.com), Award/Phoenix (http://www.award.com), and MR BIOS (www.mrbios.com) produce popular BIOS software. Wim's BIOS Page (www.wimsbios.com) discusses BIOS flashing in detail. FlashBIOS (www.flashbios.org) and Tom's Hardware (www.tomshardware.com/bios.html) also offer a wealth of BIOS information and links.

The PL-AXP Quick Start Guide The PowerLeap® PL-AXP™ is the most cost-effective upgrade solution for the AMD Athlon XP CPU.	 Align Pin 1 of both the PL-AXP and the AMD Athlon XP CPU.	 Align the Pin 1 corners of the CPU and the ZIF Socket 462.	 The PL-AXP, with 5 multiplier switches on the backside.
 Gently insert the CPU onto the PL-AXP, then lock the arm down.	 Press down evenly so no "space" between the CPU and PL-AXP.	 Apply the thermal compound, then be sure it's evenly spread.	 Install the NEW heatsink and fan for the Athlon XP CPU.

The PL-AXP™ also allows unlocking* the new AMD Athlon XP CPU multiplier, so it can operate using a **5.5X-12.5X** multiplier together with a higher FSB speed. By unlocking your AMD Athlon XP with the PL-AXP adapter, you can tweak your CPU and FSB (Front-Side Bus) speeds to enhance your system's overall performance. For example, the AMD Athlon XP 2400+ CPU with a 266MHz FSB (2*133MHz) is originally locked to run at 2000MHz (multiplier of 15 x 133MHz bus speed). After the PL-AXP is installed, the processor reports a speed of **665MHz** (multiplier of 5 x 133MHz bus) on first boot, **defaulting** to the lowest available multiplier. This is normal and a green light signals that the PL-AXP is working. We've found the best multiplier setting for this system to be 12.5 with the bus set to 199MHz. This resulted in an increase in CPU speed from 2000MHz to nearly 2500MHz, a gain of 500MHz or 25%. Compared with the flagship AMD Athlon XP 3200+ running at 2200MHz, it is truly a quantum leap!

(**Warning:** We strongly suggest using a new heatsink and fan with upclocking, and please be advised that upclocking may damage your CPU, so you're at your own risk in doing so.) *Note: Locate the label on the Athlon XP CPU and make sure the model number starts with **AXDA*******, or the CPU might not be qualified for unlocking. The PL-AXP is a slim adapter that lets you freely set the new AMD Athlon XP/MP CPU multipliers. ***Note: Only the Barton and Thoroughbred-B core-based Athlon XP**

CPUs are qualified for multiplier unlocking. The PL-AXP cannot support the Palomino and Thoroughbred-A core-based Athlon CPUs. More qualified Athlon XP CPU upclocking info can be found at: http://forum.oc-forums.com/showthread.php?s=9e7d15e997d73e82c932ef5c04492dad&threadid=244237

PL-AXP™ Multiplier Setting Diagram:

w/PL-AXP Multipliers	Original Multipliers	PL-AXP Switch Settings				
		SW1	SW2	SW3	SW4	SW5
13.0X	5.0x	OFF	OFF	ON	OFF	**ON**
13.5X	5.5X	ON	OFF	ON	OFF	**ON**
14.0X	6.0X	OFF	ON	ON	OFF	**ON**
21.0X	6.5X	ON	ON	ON	OFF	**ON**
15.0X	7.0X	OFF	OFF	OFF	ON	**ON**
22.0X	7.5X	ON	OFF	OFF	ON	**ON**
16.0X	8.0X	OFF	ON	OFF	ON	**ON**
16.5X	8.5X	ON	ON	OFF	ON	**ON**
17.0X	9.0X	OFF	OFF	ON	ON	**ON**
18.0X	9.5X	ON	OFF	ON	ON	**ON**
23.0X	10.0X	OFF	ON	ON	ON	**ON**
24.0X	10.5X	ON	ON	ON	ON	**ON**
N.A.	11.0X	OFF	OFF	OFF	OFF	**ON**
19.0X	11.5X	ON	OFF	OFF	OFF	**ON**
N.A.	12.0X	OFF	ON	OFF	OFF	**ON**
20.0X	12.5X	ON	ON	OFF	OFF	**ON**
w/PL-AXP, you can use the new Athlon XP/MP for upgrading.						

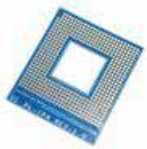
w/PL-AXP Multipliers	Original Multipliers	PL-AXP Switch Settings				
		SW1	SW2	SW3	SW4	SW5
5.0X	13.0X	OFF	OFF	ON	OFF	**OFF**
5.5X	13.5X	ON	OFF	ON	OFF	**OFF**
6.0X	14.0X	OFF	ON	ON	OFF	**OFF**
7.0X	15.0X	OFF	OFF	OFF	ON	**OFF**
8.0X	16.0X	OFF	ON	OFF	ON	**OFF**
8.5X	16.5X	ON	ON	OFF	ON	**OFF**
9.0X	17.0X	OFF	OFF	ON	ON	**OFF**
9.5X	18.0X	ON	OFF	ON	ON	**OFF**
11.5X	19.0X	ON	OFF	OFF	OFF	**OFF**
12.5X	20.0X	ON	ON	OFF	OFF	**OFF**
6.5X	21.0X	ON	ON	ON	OFF	**OFF**
7.5X	22.0X	ON	OFF	OFF	ON	**OFF**
10.0X	23.0X	OFF	ON	ON	ON	**OFF**
10.5X	24.0X	ON	ON	ON	ON	**OFF**
Note: The SW1-SW4 settings are the same as the original multipliers, but SW5 for the PL-AXP has been changed (marked in the boldface).						

The PL-AXP is useful for older Athlon/Duron CPU upgrades. Additionally, it's for the older AMD Athlon & Duron mainboards (Socket 462) that are limited at the 12.5X multiplier barrier to achieve **13X—24X** settings. Therefore, you can use the latest Athlon XP CPU as *an upgrade on older PCs.*

Troubleshooting and Tips:

1. If the CPU upgrade doesn't work (blank screen), most likely the CPU is NOT connected firmly. Also make sure your motherboard FSB (Front-Side Bus) has been set properly.
2. If the system stops after memory counting or during system initialization, use more conservative BIOS settings for the main memory and cache memory (i.e., change the "CL=2" to **"CL=3"**), and load the "Fail-Safe" settings or "BIOS Default Values" option in the BIOS setup.
3. SoundBlaster® Audio Card users: please upgrade to the latest drivers, or the system may not work normally. It's a known problem with SoundBlaster® cards when the CPU is changed.
4. If your PL-AXP™ encounters stability problems (i.e., periodic system freezes) or significant performance slowdown, it should be the result of "CPU overheating". Please make sure the heatsink is properly connected and the fan is working. It's required to use the "Thermal Compound" to improve the heat dissipation if overheating is suspected.
5. For the PL-AXP, please only use the Athlon XP (**AXDAxxxx:** Barton & Thoroughbred-B core) CPUs. Please note these CPUs start with the "AXDA" marking.

Please find more PowerLeap CPU/Memory upgrade info at: http://www.powerleap.com

Socket 370 Upgrade		Socket 370 Upgrade		Socket 370 Upgrade		Socket 370 Upgrade	
	PL-370/T v2.1		PL-MPIII		PL-Neo S370		PL-Neo/T
Slot 1 Upgrade		Slot 1 Upgrade		Socket 423 Upgrade		Socket 478 Upgrade	
	PL-iP3/T v2.0		FTK-Slot/Z		PL-P4/N		PL-iP4