

Intel 915

Intel Pentium D 915 Dual-Core CPU Instruction Manual

Model: 915

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1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Intel Pentium D 915 Dual-Core CPU. The Intel Pentium D 915 is a dual-core processor designed for Socket 775 motherboards, offering a clock speed of 2.8 GHz and a 4 MB L2 cache. It is engineered to enhance your computer's processing capabilities for various applications.



Figure 1: Intel Pentium D 915 Dual-Core CPU. This image displays the top view of the processor, showing the Intel logo and model number, with the heat spreader visible.

2. KEY FEATURES

- **Processor Type:** Intel Pentium D 915 Desktop Dual-Core Processor
- **CPU Speed:** 2.8 GHz
- **Bus Speed:** 800 MHz
- **L2 Cache:** 4 MB (2 x 2MB)
- **Socket Type:** Socket 775 (LGA 775)
- **Voltage Range:** 1.225V - 1.325V VID

- **Technology:** Enhanced Intel Speedstep Technology, Intel EM64T, Enhanced Halt State (C1E), Execute Disable Bit

3. SETUP AND INSTALLATION

Installing a CPU requires careful handling and adherence to safety procedures. It is recommended that installation be performed by a qualified technician. Always consult your motherboard's manual for specific installation instructions, as procedures may vary.

3.1 Safety Precautions

- **Power Off:** Ensure the computer is completely powered off and unplugged from the wall outlet before beginning installation.
- **Static Discharge:** Wear an anti-static wrist strap or frequently touch a grounded metal object to prevent electrostatic discharge (ESD), which can damage components.
- **Handle with Care:** Hold the CPU by its edges. Avoid touching the gold contacts or the underside of the processor.

3.2 Installation Steps (General)

1. **Prepare Motherboard:** Open the CPU socket lever on your motherboard.
2. **Align CPU:** Carefully align the CPU with the socket. Look for a small triangle or notch on the CPU and the socket to ensure correct orientation. Do not force the CPU into the socket; it should drop in easily.
3. **Secure CPU:** Once the CPU is seated correctly, close the socket lever to secure the processor.
4. **Apply Thermal Paste:** Apply a small amount of high-quality thermal paste to the center of the CPU's heat spreader.
5. **Install CPU Cooler:** Mount the CPU cooler according to its manufacturer's instructions, ensuring proper contact with the CPU and secure attachment to the motherboard.
6. **Connect Fan:** Connect the CPU cooler's fan cable to the designated CPU_FAN header on the motherboard.

4. OPERATION

Once installed, the Intel Pentium D 915 CPU will operate automatically within your system. Its dual-core architecture allows for efficient multitasking and improved performance in applications that can utilize multiple processing threads. The 2.8 GHz clock speed and 4 MB L2 cache contribute to faster data access and processing.

The Enhanced Intel Speedstep Technology dynamically adjusts the processor's voltage and frequency, optimizing power consumption and heat generation based on system load. Intel EM64T enables the processor to run 64-bit operating systems and applications, while the Execute Disable Bit provides enhanced security against certain types of malicious software.

5. MAINTENANCE

The Intel Pentium D 915 CPU itself requires no direct maintenance. However, maintaining the overall cooling system of your computer is crucial for its longevity and stable performance.

- **Dust Removal:** Regularly clean dust from your CPU cooler's heatsink and fan, as well as other case fans, using compressed air. Dust buildup can impede airflow and lead to overheating.
- **Thermal Paste:** Over several years, thermal paste can dry out. If you notice consistently high CPU temperatures, consider reapplying fresh thermal paste after carefully cleaning the old paste from the CPU and heatsink. This procedure should be done by an experienced user or technician.
- **Airflow:** Ensure your computer case has adequate airflow. Keep intake and exhaust vents clear of obstructions.

6. TROUBLESHOOTING

If you encounter issues after installing or while using your Intel Pentium D 915 CPU, consider the following common troubleshooting steps:

- **System Not Booting:**

- Verify the CPU is correctly seated in the socket and the lever is fully closed.
- Ensure the CPU cooler is properly installed and its fan is connected to the motherboard.
- Check all power connections to the motherboard and components.
- Confirm your motherboard BIOS supports the Pentium D 915 CPU. An older BIOS version might require an update.

- **Overheating:**

- Ensure the CPU cooler is making good contact with the CPU and is securely mounted.
- Verify that thermal paste was applied correctly and evenly.
- Clean any dust from the CPU cooler heatsink and fan.
- Check case airflow and fan operation.

- **System Instability/Crashes:**

- Ensure the CPU is not overclocked beyond its stable limits. The Pentium D 915 is not recommended for overclocking due to its voltage characteristics.
- Check RAM modules for proper seating and functionality.
- Update motherboard drivers and BIOS to the latest versions.

If problems persist, consult your motherboard's manual or contact Intel support for further assistance.

7. TECHNICAL SPECIFICATIONS

Feature	Detail
Brand	Intel
CPU Manufacturer	Intel
CPU Model	Pentium D 915
CPU Speed	2.8 GHz
CPU Socket	LGA 775
Processor Series	Pentium
Secondary Cache	4 MB
Cache Memory Installed Size	4 MB
Processor Count	1 (Dual-Core)
Model Number	915
Item Weight	3.36 ounces
UPC	683728207793

Feature	Detail
ASIN	B003BLU8IO

8. WARRANTY AND SUPPORT

For information regarding the warranty of your Intel Pentium D 915 CPU, please refer to the official Intel warranty documentation provided with your purchase or visit the official Intel website. Intel provides various support resources, including technical documentation, drivers, and customer service, to assist with product-related inquiries.

You can typically find support information and contact details on the official Intel support website: [Intel Support](#)

