

Intel BX8070110900

Intel Core i9-10900 Desktop Processor

MODEL: BX8070110900

Brand: Intel

1. Introduction

This manual provides essential information for the installation, operation, and maintenance of your Intel Core i9-10900 Desktop Processor. The Intel Core i9-10900 is a 10th Generation processor designed for desktop systems, featuring 10 cores and 20 threads, with a base clock speed of 2.8 GHz and a maximum turbo frequency of up to 5.2 GHz. It is built on the LGA 1200 socket and is compatible with Intel 400 series chipset based motherboards.

Your browser does not support the video tag.

Video Description: An official Intel video showcasing the 10th Gen Intel Core Processor family, highlighting performance capabilities for gaming, content creation, and productivity. It illustrates the processors' balance of frequency, cores, and threads for real-world usage.

2. Key Features

- **10 Cores / 20 Threads:** Provides robust multi-tasking and processing power.
- **Socket Type LGA 1200:** Ensures compatibility with specific motherboard chipsets.
- **Up to 5.2 GHz:** Achieves high clock speeds for demanding applications.
- **Compatible with Intel 400 series chipset based motherboards:** Specific motherboard requirement for operation.
- **Intel Turbo Boost Max Technology 3.0 Support:** Enhances performance by directing workloads to the fastest cores.
- **Intel Optane Memory Support:** Accelerates system responsiveness.
- **Cooler Included:** Comes with a stock cooling solution for immediate use.

3. Setup Instructions

3.1. Unboxing

Carefully remove the processor and its included cooler from the packaging. Inspect all components for any visible damage before proceeding with installation. Retain the packaging for future reference or warranty claims.

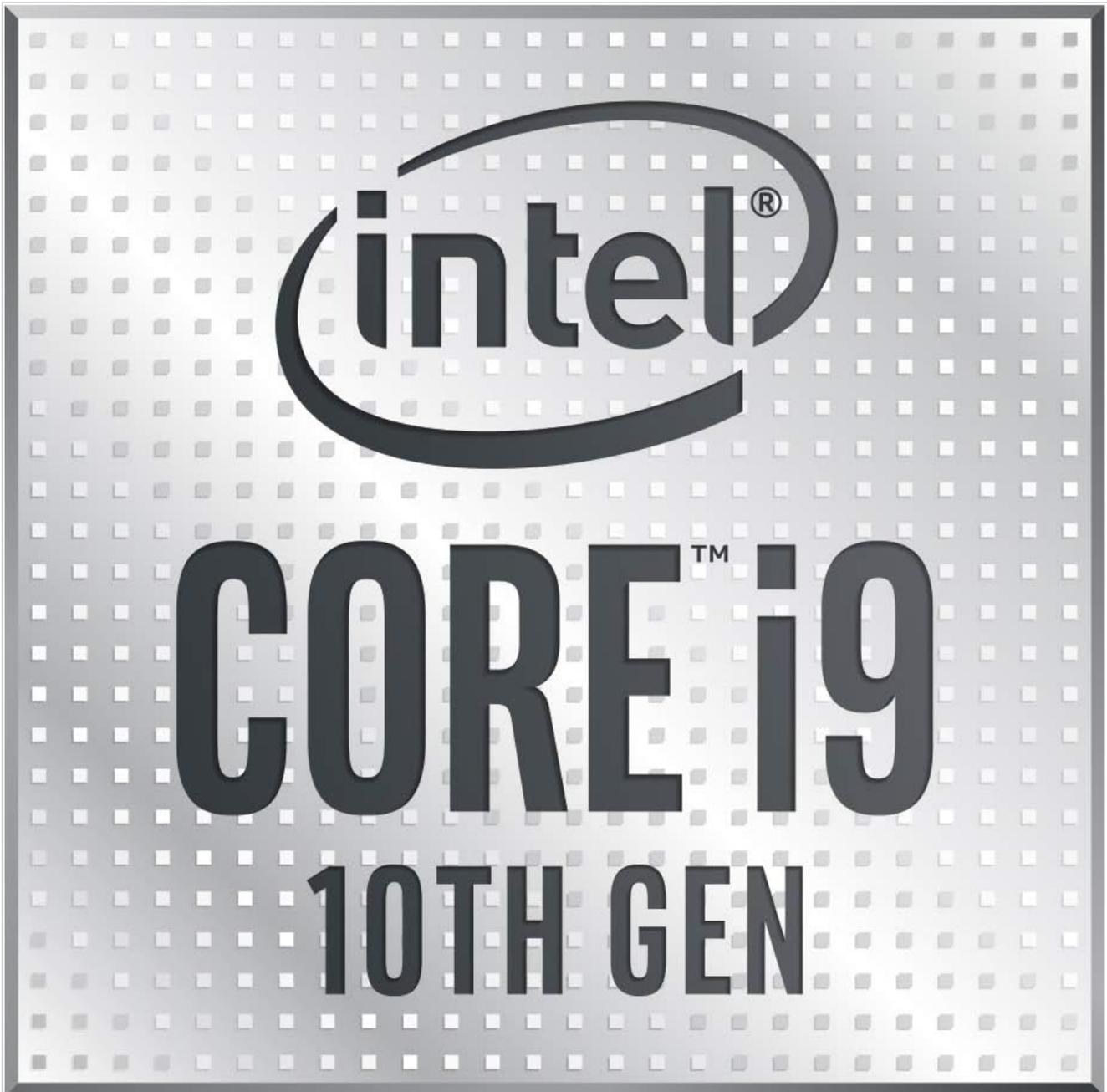


Image Description: The retail packaging for the 10th Gen Intel Core i9 processor, featuring the Intel logo and product branding.

3.2. Processor Installation

1. Ensure your motherboard is powered off and disconnected from the power supply.
2. Locate the LGA 1200 socket on your motherboard.
3. Open the CPU socket retention arm and lift the load plate.
4. Align the triangular marker on the processor with the corresponding marker on the socket. Carefully place the processor into the socket without forcing it.
5. Lower the load plate and secure it with the retention arm.

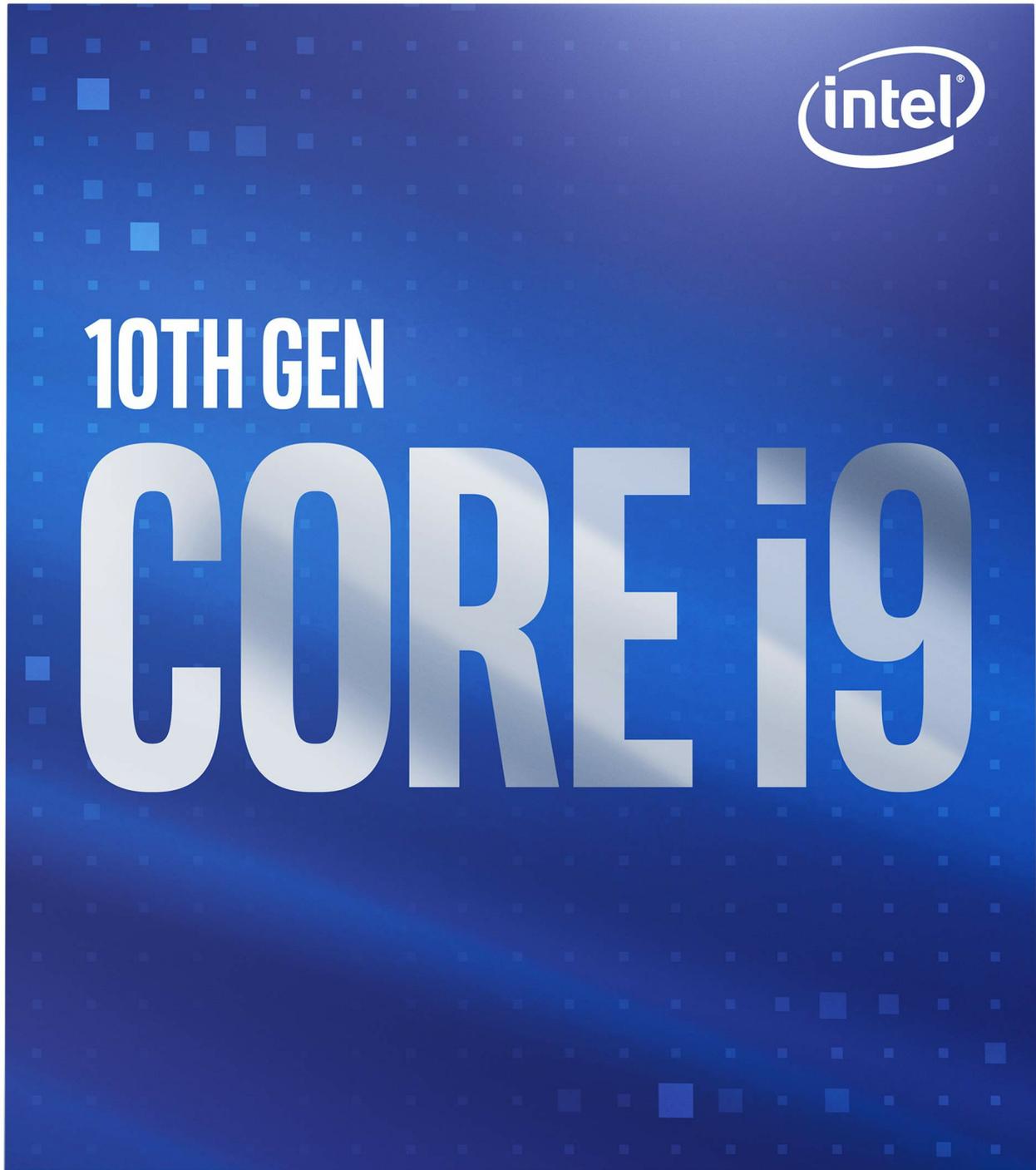


Image Description: A close-up view of the Intel Core i9-10900 desktop processor, showing the Intel logo and 'CORE i9 10TH GEN' branding on its integrated heat spreader.

3.3. Cooler Installation

The Intel Core i9-10900 processor includes a stock cooler. Apply a thin, even layer of thermal paste to the top of the processor (if not pre-applied on the cooler). Position the cooler over the CPU, aligning the mounting pins or screws with the motherboard's holes. Secure the cooler according to its specific mounting mechanism, ensuring firm contact with the processor for optimal heat dissipation.

4. Operating Information

4.1. Performance Overview

The Intel Core i9-10900 processor offers high performance for a wide range of tasks, from demanding gaming and content creation to everyday productivity. Its 10 cores and 20 threads, combined with Intel Turbo Boost Max Technology 3.0, allow for efficient handling of multi-threaded applications and dynamic frequency scaling to achieve up to 5.2 GHz when needed.

4.2. Power Consumption

This processor has a Thermal Design Power (TDP) of 65W. Ensure your power supply unit (PSU) can adequately meet the power requirements of your entire system, including the processor, graphics card, and other components.

5. Maintenance

5.1. Thermal Management

Maintaining optimal operating temperatures is crucial for processor longevity and performance. Regularly check that your CPU cooler is free of dust and debris. Ensure proper airflow within your computer case by keeping fan vents clear and managing cables effectively. Overheating can lead to system instability and reduced performance.

5.2. Cleaning

Periodically clean the CPU cooler's heatsink fins and fan blades using compressed air. Always power down and unplug your computer before performing any cleaning. Avoid using liquid cleaners directly on components.

6. Troubleshooting

6.1. Common Issues

- System Not Booting:** Verify all power connections, especially to the motherboard and CPU. Re-seat the processor and RAM modules. Check for proper CPU cooler installation.
- Overheating:** Ensure the CPU cooler is correctly installed and making good contact with the CPU. Check fan operation and clean any dust from the heatsink. Monitor CPU temperatures using system monitoring software.
- System Instability/Crashes:** This can be caused by various factors. Ensure your motherboard BIOS is updated to the latest version. Check RAM for errors. Verify that your power supply is sufficient and stable.

For persistent issues, consult your motherboard's manual for specific diagnostic codes or refer to Intel's official support resources.

7. Technical Specifications

Specification	Value
Brand	Intel
CPU Manufacturer	Intel
CPU Model	Core i9
CPU Speed	2.8 GHz (Base)
Max Turbo Frequency	5.2 GHz
CPU Socket	LGA 1200

Processor Series	Core i9
Platform	Windows 10
Secondary Cache	20 MB
Wattage (TDP)	65 watts
Cache Memory Installed Size	20 MB
Processor Count (Cores)	10
Processor Number of Concurrent Threads	20
Model Number	BX8070110900
UPC	735858448178
Item Weight	3.5 Ounces

8. Warranty and Support

The Intel Core i9-10900 Desktop Processor comes with a limited warranty. For boxed processors, the warranty is 3 years. For tray processors, the warranty is 1 year. Please retain your proof of purchase for warranty claims.

For detailed warranty information, technical support, and additional resources, please visit the official Intel support website: [Intel Support](#)
