Timetec 78AP16NUSL1R8

Timetec 16GB KIT (4x4GB) DDR3L 1600MHz PC3L-12800 SODIMM Memory Module User Manual

Model: 78AP16NUSL1R8

INTRODUCTION

This manual provides comprehensive instructions for the installation and use of your Timetec 16GB KIT (4x4GB) DDR3L 1600MHz PC3L-12800 SODIMM Memory Module. Designed for compatibility with specific Apple iMac models, this memory kit enhances system performance and multitasking capabilities. Please read these instructions carefully before proceeding with installation.

Image: Four Timetec 4GB DDR3L SODIMM memory modules, part of the 16GB kit.

COMPATIBILITY

This Timetec memory kit is specifically designed for the following Apple iMac models. Verify your iMac's model and specifications before installation to ensure compatibility.

- **iMac 21.5-inch** / **27-inch Mid 2011:** iMac12,1, iMac12,2 (Model Numbers: A1311, A1312; Part Numbers: MC309LL/A, MC812LL/A, MC813LL/A, MC814LL/A, MD063LL/A)
- **iMac 27-inch Late 2012:** iMac13,2 (Model Number: A1419; Part Numbers: MD095LL/A, MD096LL/A)
- **iMac 27-inch Late 2013:** iMac14,2 (Model Number: A1419; Part Numbers: ME088LL/A, ME089LL/A, MF125LL/A)
- **iMac 27-inch Late 2014 Retina 5K:** iMac15,1 (Model Number: A1419; Part Number: MF886LL/A)
- **iMac 27-inch Mid 2015 Retina 5K:** iMac15,1 (Model Number: A1419; Part Number: MF885LL/A)

Supported CPU Processors include various 2.5 GHz to 4.0 GHz Core i5 and Core i7 configurations.

Image: Detailed compatibility table for Timetec memory with iMac models (Part 1).

Image: Detailed compatibility table for Timetec memory with iMac models (Part 2).

SETUP AND INSTALLATION

Installing RAM in an iMac requires careful handling. Always refer to your specific iMac model's official service manual for detailed

instructions. The following steps provide a general overview.

Safety Precautions:

- Always power off your iMac and unplug all cables (power, USB, Thunderbolt, Ethernet, etc.) before beginning.
- Allow the iMac to cool down for at least 10 minutes before handling.
- Work on a clean, flat, and static-free surface.
- Discharge any static electricity from your body by touching a grounded metal object before handling the memory modules.
- Avoid touching the gold connectors on the memory modules.

Installation Steps (General for 27-inch iMacs):

1. **Prepare the iMac:** Lay your iMac face down on a soft, clean cloth to protect the screen.
2. **Locate the RAM Compartment:** On 27-inch iMac models, the RAM compartment is typically located on the back, near the power port. It's usually covered by a small access panel.
3. **Open the Access Panel:** Use a small, non-conductive tool (like a spudger or a pen) to press the small button or latch next to the power port. The memory compartment cover should pop open.
4. **Remove Existing RAM (if applicable):** If you are replacing existing RAM, gently push the ejector clips on either side of the memory module outwards. The module will pop up slightly. You can then pull it straight out.
5. **Install New RAM:** Align the notch on the Timetec memory module with the key in the memory slot. Insert the module firmly into the slot at an angle until it clicks into place. Then, push down on the module until the ejector clips snap into place, securing the module horizontally.
6. **Repeat for all Modules:** Install all four Timetec 4GB modules into the available slots.
7. **Close the Access Panel:** Replace the memory compartment cover, ensuring it clicks securely into place.
8. **Reconnect and Power On:** Carefully return the iMac to its upright position, reconnect all cables, and power it on.
9. **Verify Installation:** Once the iMac boots, go to **Apple menu > About This Mac** to confirm that the new memory is recognized.

Image: Illustrative example of installing a SODIMM memory module into a computer.

OPERATING INFORMATION

Once installed, the Timetec DDR3L 1600MHz PC3L-12800 SODIMM memory modules operate automatically with your iMac's system. The operating system will detect and utilize the increased memory capacity to improve overall system responsiveness, allow for more applications to run simultaneously, and enhance performance in memory-intensive tasks such as video editing, graphic design, and virtualization.

- **Automatic Detection:** The memory modules are plug-and-play; no software installation is required.
- **Performance Enhancement:** Expect faster application loading, smoother multitasking, and improved system stability.
- **Low Voltage Operation:** DDR3L operates at 1.35V, which is energy-efficient and compatible with systems designed for low-voltage memory.

MAINTENANCE

Memory modules generally require no routine maintenance. However, proper handling and environmental conditions are important for their longevity.

- **Keep Clean:** Ensure the computer's interior is free from dust to prevent overheating, which can affect memory performance and lifespan.
- **Proper Handling:** When handling memory modules, always hold them by the edges and avoid touching the gold contacts or the chips.

- **Environmental Conditions:** Operate your iMac in a well-ventilated area and within recommended temperature and humidity ranges to prevent component stress.

TROUBLESHOOTING

If you encounter issues after installing the memory, consider the following troubleshooting steps:

- **No Boot/Black Screen:**

  - Ensure all memory modules are fully seated in their slots. Remove and re-insert them firmly.
  - Verify that the memory modules are compatible with your specific iMac model (refer to the Compatibility section).
  - Try installing only one module at a time to identify a potentially faulty module or slot.
  - Reset the System Management Controller (SMC) and Non-Volatile Random-Access Memory (NVRAM)/Parameter RAM (PRAM) on your iMac. Consult Apple's support documentation for instructions specific to your model.

- **Incorrect Memory Reported:**

  - Check "About This Mac" again to ensure the reported memory matches the installed amount.
  - Re-seat the modules to ensure proper contact.
  - Ensure you have installed the modules in the correct configuration as per your iMac's specifications (e.g., matching pairs).

- **System Instability/Crashes:**

  - This could indicate a faulty module or an incompatibility. Follow the steps for "No Boot/Black Screen" to isolate the issue.
  - Run Apple Diagnostics or Apple Hardware Test to check for memory-related errors.

If problems persist, contact Timetec technical support for further assistance.

SPECIFICATIONS

Feature	Detail
Module Type	DDR3L SODIMM
Capacity	16GB KIT (4x4GB Modules)
Speed	1600MHz (PC3L-12800)
Latency	CL11
Voltage	1.35V
Pin Count	204-Pin
Error Correction	Non-ECC
Buffering	Unbuffered
Rank	Dual Rank 2Rx8
Model Number	78AP16NUSL1R8
Compatible Devices	Apple iMac (Mid 2011, Late 2012, Late 2013, Late 2014 Retina 5K, Mid 2015 Retina 5K)

WARRANTY AND SUPPORT

Timetec provides a lifetime warranty for this memory module from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For technical support or warranty claims, please contact Timetec customer service. Free technical support is available based in the United States.

Please visit the official Timetec website or refer to your purchase documentation for the most current contact information and warranty details.

Related Documents - 78AP16NUSL1R8

[Test Report: TimeTec TC10 Time Attendance System Safety Compliance (IEC 62368-1)](#)
Official test report for the TimeTec TC10 Time Attendance System, verifying compliance with IEC 62368-1 safety standards for audio/video, information, and communication technology equipment. Includes detailed test results and analysis.

[TimeTec BLE-2 Smart Door Controller Installation Guide](#)
Comprehensive installation guide for the TimeTec BLE-2 Smart Door Controller, detailing setup, wiring, and inspection for access control systems. Learn how to install and configure your smart door lock system.

[Timetec PREMIUM 2230 PCIe 4.0 NVMe SSD - High Performance Storage](#)
Discover the Timetec PREMIUM 2230 SSD, a high-performance NVMe PCIe Gen 4 M.2 2230 solid-state drive offering fast read/write speeds, advanced features, and reliable storage for modern computing. Available in 512GB, 1TB, and 2TB capacities.

[IEC 62368-1 Test Report for TimeTec TC20 Door Access & Time Attendance System](#)
This test report confirms the TimeTec TC20 Door Access & Time Attendance System meets IEC 62368-1 safety requirements. Prepared by Shenzhen WST Testing Co., Ltd. for TimeTec Computing Sdn Bhd.

[Timetec M.2 PCIe Gen 4.0 NVMe SSD - Fast & Reliable Storage](#)

Discover the Timetec M.2 PCIe Gen 4.0 NVMe SSD, offering high-speed performance, advanced features like 3D NAND Flash and HMB, and broad system compatibility for enhanced computing. Includes specifications and part numbers.

[TIMETEC TP-1 Portable SSD - High-Speed USB 3.2 Gen 2 External Storage](#)

Explore the TIMETEC TP-1 Portable SSD, a high-speed external solid-state drive featuring the fast USB 3.2 Gen 2 interface. It supports a wide range of devices and offers advanced features like 3D NAND Flash and SLC Cache, available in capacities from 256GB to 2TB.