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A-Tech ASM684

A-Tech 8GB DDR3 SODIMM Memory Module Instruction Manual

Model: ASM684

1. INTRODUCTION

This manual provides essential information for the installation and use of your A-Tech 8GB DDR3 1600MHz PC3-12800 SODIMM memory module. This module is designed to enhance the performance of compatible Toshiba Portege R930 and Z930 series laptops and All-in-One (AIO) systems by expanding their memory (RAM) capacity. For optimal performance and system stability, please read these instructions carefully before proceeding with installation.

2. PRODUCT OVERVIEW



A-TECH

LAPTOP MEMORY

8GB Module

DDR3 1600MHz PC3-12800
SODIMM 2Rx8 1.5V



L I F E T I M E W A R R A N T Y

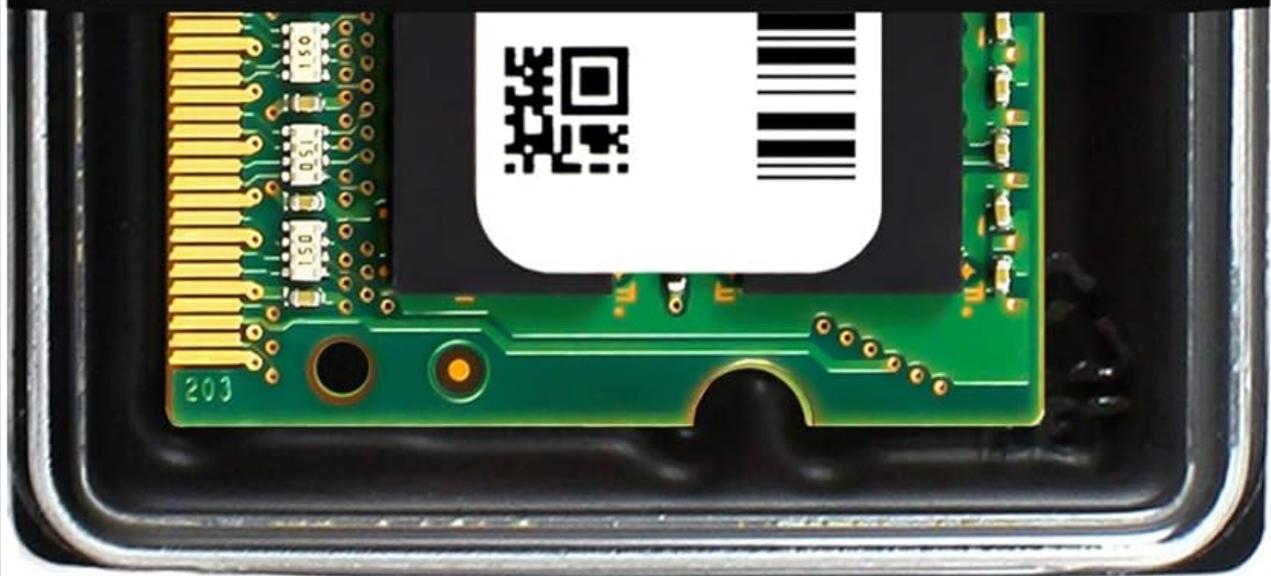


Figure 2.1: A-Tech 8GB DDR3 SODIMM memory module in its clear plastic retail packaging. The packaging highlights the brand, memory size, type, speed, and includes a QR code for more information. [Scan QR for more details.](#)



Figure 2.2: Front view of the A-Tech 8GB DDR3 SODIMM memory module. The module features the A-Tech logo, 8GB DDR3 PC3-12800/1600MHz specifications, and a warning that removal will void the warranty.

Key Features:

- **Memory Type:** DDR3 SODIMM
- **Capacity:** 8GB (Single Module)
- **Speed:** 1600MHz (PC3-12800)
- **Voltage:** 1.5V (Standard DDR3 Voltage)
- **Error Correction:** Non-ECC Unbuffered
- **Pin Count:** 204-Pin

3. COMPATIBILITY

This A-Tech memory module is specifically designed and tested for compatibility with the following Toshiba Portege laptop models:

- Portege R930-08T
- Portege R930-2012
- Portege R930-2021
- Portege R930-2024
- Portege R930-2029
- Portege R930-2032
- Portege R930-2038
- Portege Z930-043
- Portege Z930-11Z
- Portege Z930-12Q

It is also compatible with a wide range of other DDR3 capable Laptop, Notebook, and All-in-One (AIO) Computers. Please refer to your system's manual to confirm memory specifications and compatibility before installation.



Figure 3.1: This image emphasizes the broad compatibility of A-Tech memory modules with various portable computing devices, including laptops, mini PCs, and All-in-One systems.

4. INSTALLATION GUIDE

Installing RAM is a straightforward process, but it requires careful handling to prevent damage to the module or your system. Always consult your laptop's specific service manual for detailed instructions on accessing and replacing memory modules, as procedures may vary by model.

Safety Precautions:

- **Static Electricity:** Memory modules are sensitive to electrostatic discharge (ESD). Before handling, ground yourself by touching a metal object (like an unpainted part of your computer case) or use an anti-static wrist strap.
- **Power Off:** Ensure your laptop is completely powered off and unplugged from the AC adapter. Remove the battery if possible.
- **Work Area:** Work on a clean, flat, and well-lit surface.

Installation Steps:

1. **Locate Memory Bay:** Turn your laptop over and locate the memory compartment cover. This is usually secured by small screws. Refer to your laptop's manual for exact location and removal instructions.
2. **Remove Cover:** Unscrew and carefully remove the memory compartment cover.
3. **Remove Old Module (if applicable):** If you are replacing an existing module, gently push outwards on the two clips on either side of the memory module. The module will pop up at an angle. You can then slide it out of the slot.
4. **Insert New Module:** Hold the new A-Tech SODIMM module by its edges, aligning the notch on the module with the key in the memory slot. Insert the module at a 45-degree angle into the slot.
5. **Secure Module:** Gently push down on the module until the two clips on the sides snap into place, securing the module horizontally. Ensure it is firmly seated.
6. **Replace Cover:** Reattach the memory compartment cover and secure it with the screws.
7. **Power On:** Reinsert the battery (if removed) and plug in the AC adapter. Power on your laptop. The system should automatically detect the new memory.

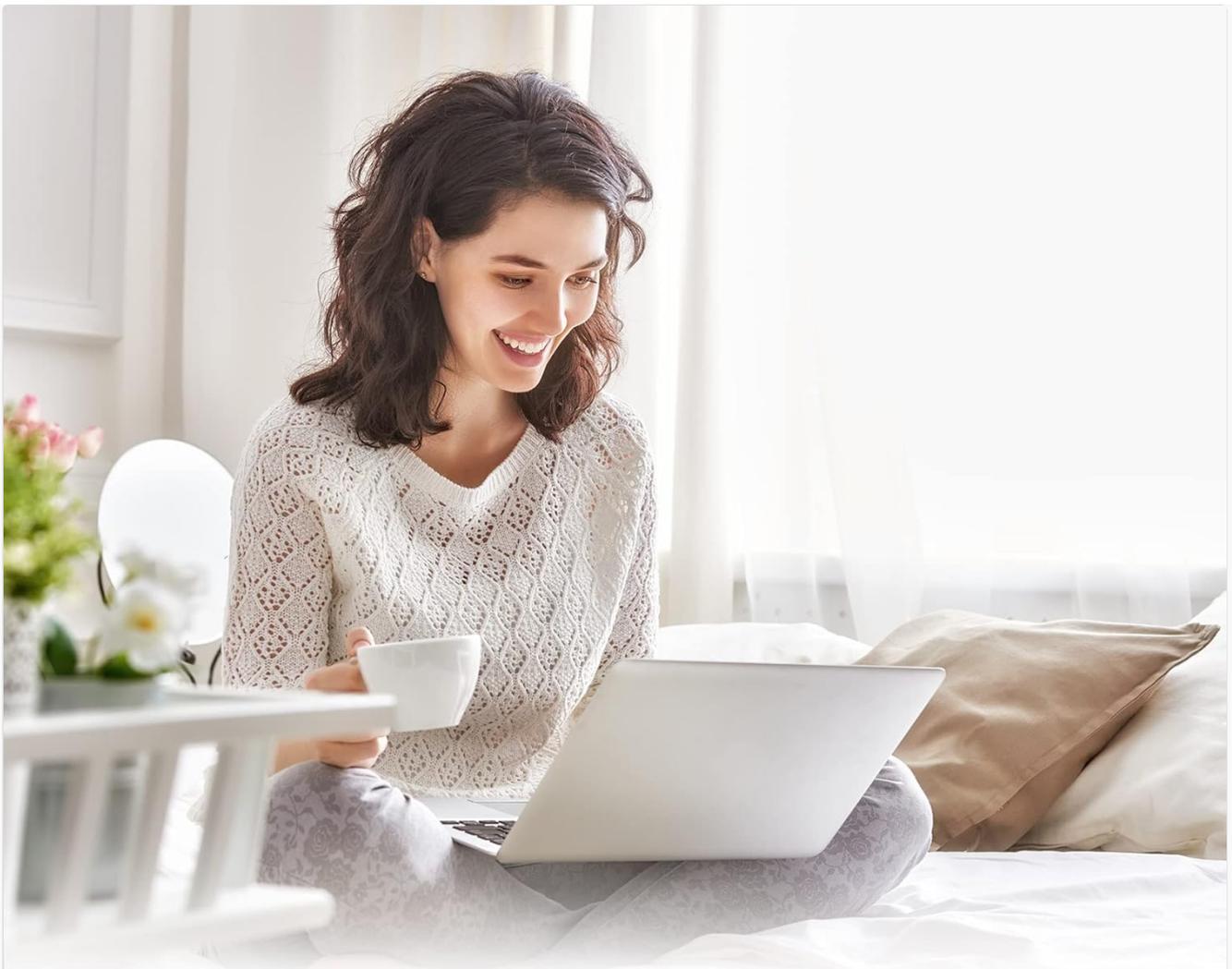
If your system does not boot or recognize the new memory, refer to the Troubleshooting section.

5. OPERATING CONSIDERATIONS

Once installed, the A-Tech memory module operates automatically with your system. No specific software or drivers are required for its function. The primary benefit of a memory upgrade is improved system responsiveness and the ability to run more applications simultaneously without slowdowns.



Figure 5.1: This image illustrates the performance benefits of upgrading your system's memory, such as reduced bottlenecks and increased workload capacity.



MULTITASK WITH EASE

Expand your system's memory (RAM) capacity allowing you to take on more at once

Figure 5.2: This image depicts a user enjoying seamless multitasking on their laptop, a direct benefit of increased RAM capacity.

6. MAINTENANCE

Memory modules are generally maintenance-free components. Once installed correctly, they do not require regular cleaning or servicing. However, consider the following:

- **Dust:** If you open your laptop for other maintenance, gently remove any dust accumulation around the memory slots using compressed air.
- **Physical Damage:** Avoid dropping or bending the module. Handle it only by its edges.
- **Environmental Conditions:** Store and operate your laptop in environments within its recommended temperature and humidity ranges to ensure the longevity of all internal components, including RAM.

7. TROUBLESHOOTING

If you encounter issues after installing your A-Tech memory module, try the following troubleshooting steps:

Common Issues and Solutions:

- **System Does Not Boot / Black Screen:**
 - **Re-seat the Module:** Power off the laptop, remove the battery and AC adapter. Open the memory compartment and carefully remove and re-insert the memory module, ensuring it is fully seated and the clips snap into place.
 - **Check Compatibility:** Double-check that the memory module is compatible with your specific laptop model and that your laptop supports the total amount of RAM installed.
 - **Test Original RAM:** If you replaced an existing module, re-install the original RAM to confirm the laptop functions correctly with it. This helps isolate if the issue is with the new module or the installation process.
 - **Test Slots:** If your laptop has multiple memory slots, try installing the module in a different slot.
- **System Boots but RAM Not Recognized / Incorrect Amount Shown:**
 - **Check BIOS/UEFI:** Access your laptop's BIOS/UEFI settings (usually by pressing F2, F10, Del, or Esc during startup) to see if the memory is detected there.
 - **Operating System Check:** Verify the amount of installed RAM in your operating system (e.g., Task Manager in Windows, About This Mac in macOS).
 - **Re-seat the Module:** As above, ensure the module is properly seated.
- **System Instability / Blue Screens (BSOD):**
 - **Memory Diagnostic:** Run a memory diagnostic tool (e.g., Windows Memory Diagnostic, MemTest86) to check for errors in the RAM module.
 - **Re-seat the Module:** Ensure proper seating.
 - **BIOS Update:** In rare cases, an outdated BIOS/UEFI might cause compatibility issues. Check your laptop manufacturer's website for BIOS updates.

If these steps do not resolve the issue, please contact A-Tech customer support for further assistance.

8. SPECIFICATIONS

Attribute	Value
Brand	A-Tech
Series	ASM684
Item Model Number	ASM684
RAM Size	8 GB
RAM Memory Technology	DDR3 SODIMM
Memory Speed	1600 MHz (PC3-12800)
Voltage	1.5 Volts
Error Correction	Non-ECC Unbuffered
Pin Count	204-Pin
Product Dimensions (LxWxH)	2.66 x 1.18 x 0.15 inches
Country of Origin	USA

9. WARRANTY AND SUPPORT

A-Tech memory modules are built to rigorous standards and undergo stringent quality control testing to ensure dependable and reliable performance.

Limited Lifetime Warranty:

This product is backed by A-Tech's Limited Lifetime Warranty. This warranty covers defects in materials and workmanship for the lifetime of the product. Please retain your proof of purchase for warranty claims.



Figure 9.1: This image highlights the reliability of A-Tech memory modules, which are subjected to extensive quality control testing to ensure consistent performance.

Customer Support:

For technical assistance, warranty claims, or any questions regarding your A-Tech memory module, please contact our knowledgeable Tech Team. Contact information can typically be found on the A-Tech website or through your retailer.

Visit the official A-Tech Store on Amazon: [A-Tech Components Store](#)