

# Save Time, Save Money, and Improve PC Reliability

## RAMCHECK® PLUS

Rugged high-quality  
184-pin socket for DDR  
DIMMs.

Rugged high-quality 168-pin  
socket for SDRAM/EDO/FPM  
modules.

Press one button for a  
fully automatic test.

Easy-to-read display  
for instructions and  
test results.

Modular design  
accepts a variety of  
optional adapters.

“It's hard to live without —  
we use it every day!”  
Dan Burkhard,  
CDW Repair Center

### T E S T S

- ✓ DDR
- ✓ SDRAM
- ✓ DIMMs
- ✓ SIMMs
- ✓ EDO/FPM
- ✓ CHIPS
- ✓ and more!

Stop throwing away PC memory. Quality-check it with RAMCHECK Plus! In just seconds, you can test all common PC memory – DDR, PC166/150/133/100, SODIMM “laptop” memory, even old SIMMs. What’s more, RAMCHECK Plus is affordable, even for small companies.

RAMCHECK Plus is designed to help your bottom line. Its powerful high-frequency test engine, modular design and proven test algorithms give you the power to do superior memory tests at a surprisingly affordable price. It’s also easy to upgrade RAMCHECK Plus, with free firmware upgrades that you can download in just seconds. A PC communication program is even included that allows you to print and log your test results.

You’re also in good company with RAMCHECK Plus! INNOVENTIONS is the creator of the original SIMCHECK, the world’s most popular memory tester. Over the past 15 years, thousands of companies around the world, including most Fortune 500 companies, have come to rely on our memory test equipment.

Call INNOVENTIONS  
(281) 879-6226

 **INNOVENTIONS, Inc.**  
“INNOVATIVE PRODUCTS FROM INVENTIVE MINDS”  
[www.innoventions.com](http://www.innoventions.com)

# WHY YOU NEED RAMCHECK PLUS

## SAVE TIME

Testing on a motherboard can take a full 15 minutes. In just seconds, RAMCHECK Plus completes a diagnostic check of your memory module.

## SAVE MONEY

Don't throw away suspected modules, test them! Eliminate costly fraud at RMA departments by checking returns!

## IMPROVE RELIABILITY

RAMCHECK Plus gives manufacturers, distributors and technicians "peace of mind." They know the memory they ship to their customers has been checked for quality and reliability.

## RAMCHECK Plus Features:

- Its high-frequency test engine, parallel data access capability and state-of-the-art timing circuitry provide you with features usually found in expensive \$10,000+ testers. RAMCHECK Plus is newly designed and upgradeable, protecting your tester against future obsolescence.
- RAMCHECK Plus' modular design and variety of existing and planned memory adapters give you a broad coverage of memory technology, today and in the future.
- Easy to use! With a push of a button, RAMCHECK Plus measures size, speed, type and detailed structure. Automatic tests provide full support for DDR, SDRAM and EDO/FPM without the need for complex setup.
- Use it as a standalone tester, or connect it to your PC via the built-in serial interface to log your tests and print the results.
- Setup for user-defined tests and parameters for advanced users. Quickly change test parameters with "change-on-the-fly" feature.
- Rugged, top-quality sockets for easy module handling. These sockets are rated for thousands of insertion-removal cycles.
- Free test firmware upgrades via the Internet.
- SPD Wizard for reading, editing and programming Serial Presence Detect (SPD) data.
- Comes with PC Communication software, serial cable, power supply and manual — everything's included!

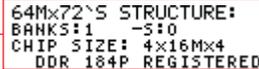
# RAMCHECK PLUS® SCREEN IMAGES

## POWERFUL! EASY TO READ!

**Test Reports**



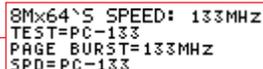
Prompts the user to begin the test by pressing F1.



Structure information indicates which control signals are used.



Clearly identifies good and bad modules.



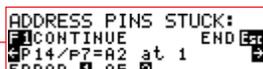
Summary screens inform whether module is PC-133 compliant.



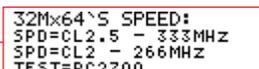
Scrollable error menus provide error details plus its associated pin number.



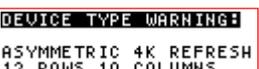
Reports individual access times from the clock at both CAS latency 2 and 3.



Displays address wiring errors.



Identifies PC2700/2100/1600 modules.

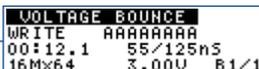


Clearly indicates variations from standard devices.

**Test Phases**



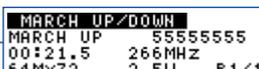
BASIC Test checks wiring & memory cells. (Shown: Unbuffered DDR module running at 266MHz at CL-2).



VOLTAGE BOUNCE tests data retention during voltage variation between read & write.



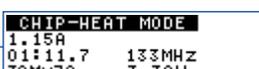
EXTENSIVE Test performs various tests to establish memory quality.



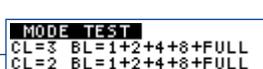
MARCH UP/DOWN reveals adjacent cell interference problems.



VOLTAGE CYCLING performs tests under all allowable voltage conditions.



CHIP HEAT MODE tests at actual operational temperatures.



MODE Test identifies burst lengths at CAS latency of 2 and 3.

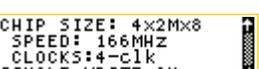


AUTO LOOP tests memory with endless pattern changes. Great for burn-in.

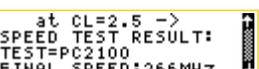
**Test Log**



Detailed test logs reveal results after each test.

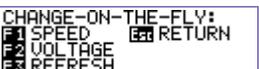


Review stored results on a scrollable display.

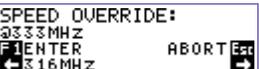


Final speed and PC standard is recorded.

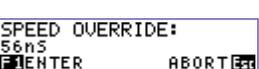
**Change-On-The-Fly**



Make ON-THE-FLY parameter changes with the push of a button.



A one-time speed override allows you to change the test frequency.



A one-time speed override allows you to change the tested access time.

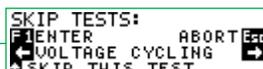
**Setup**



Clear and interactive menus.



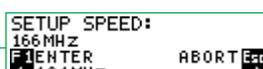
Detailed SETUP LIST tracks all default program changes.



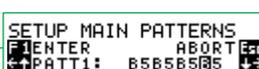
Test Flow Setup allows for test flow customization.



Graphic timing parameter setup pleases the most advanced users.



Frequency Setup for SDRAM DIMMs.



Program your own test patterns used throughout the test.

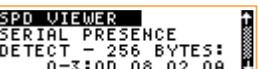
**SPD Management**



Allows you to read, edit & program your module's SPD device.



Three different SPD programming modes are available. SPD data can be saved to disk via the PC Interface.

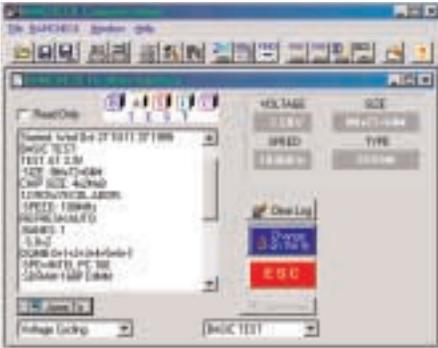


The SPD buffer allows you to review previously read SPD data.

# PRINT, LOG, AND UPGRADE FIRMWARE WITH RAMCHECK PC COMMUNICATION

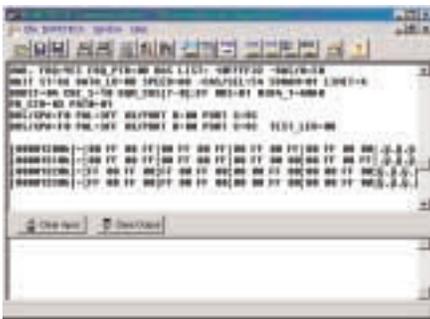
Although RAMCHECK is primarily a stand-alone tester, it has a built-in serial interface port and comes with a powerful multifunction PC Communication software package.

## REALTIME INTERFACE



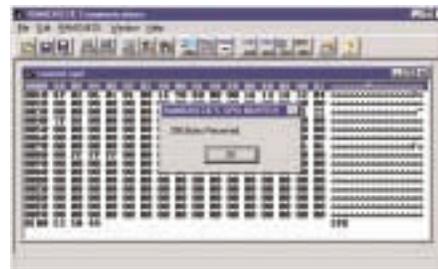
Allows you to print and log test results, with full control of RAMCHECK via the PC. A much more detailed test log and additional measurements are viewable on the PC screen.

## ADVANCED DIAGNOSTICS



Advanced users can obtain more detailed data about the structure of the tested devices using the various debug modes of the tester.

## SPD PROGRAMMING



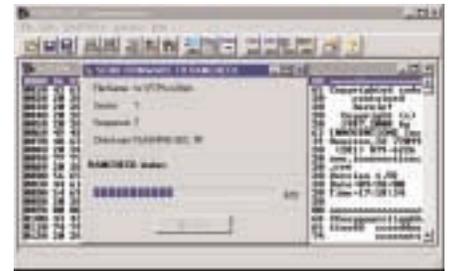
Memory manufacturers and advanced users can save, edit and program SPD devices. Optional Production Mode programs the SPD based on test results.

## SPD WIZARD



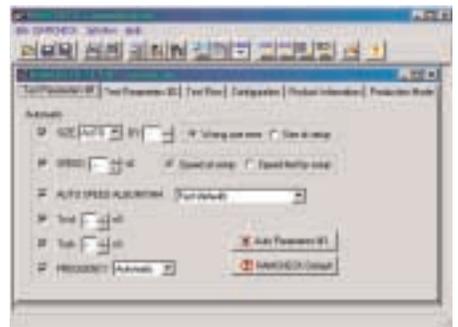
You can throw away those encrypted SPD tables! The SPD WIZARD makes SPD editing a breeze by clearly identifying the meaning of each SPD byte (and bits) as you go.

## FIRMWARE DOWNLOAD



The Firmware Download program allows you to quickly update your RAMCHECK firmware with our latest test programs, directly from our Web site.

## RAMCHECK SETUP



Set up your RAMCHECK and customize it using the intuitive setup interface on your PC screen. Save your setup files on your computer.

“(RAMCHECK) made life a lot easier by not having to replace memory that wasn’t truly bad, and saved us a lot of time in not having to test the memory manually one module at a time.”

Troy Marshall,  
Chevron-Texaco

## Attention SIMCHECK II Users

# DON'T WRITE OFF YOUR OLD SIMCHECK II TESTER...

Fed up with expensive electronics that quickly become obsolete? INNOVENTIONS' loyal SIMCHECK II users can save up to 45% by converting their existing unit to RAMCHECK, versus buying a new unit. Call us today to upgrade to the new RAMCHECK Plus level and start testing DDR modules.

Your investment in RAMCHECK Plus will not become obsolete with the next advance in memory technology. All INNOVENTIONS products are designed with future technology in mind!

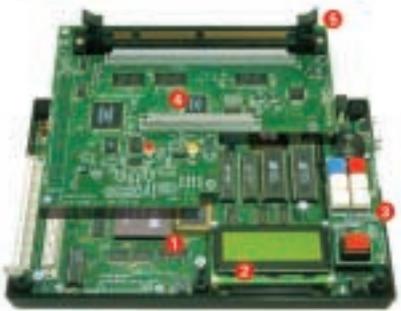


## CONVERT IT!

# RAMCHECK PLUS PRODUCT LINE

**Don't let RAMCHECK PLUS' small size deceive you!**

RAMCHECK Plus is packed with state-of-the-art electronics to provide you with testing capabilities usually found in \$10,000+ testers. The dedicated 32-bit processor (1) runs automatic test programs. RAMCHECK Plus' user interface includes a high-quality graphic display (2) and easy-to-use keyboard (3). Its high-frequency test engine (4) utilizes a high-quality 168-pin socket (5) to test SDRAM and EDO/FPM modules. The DDR test engine (6) is implemented in advanced FPGA devices and utilizes a high-quality 184-pin socket (7) to test DDR modules.



### RAMCHECK BASE TESTER

The RAMCHECK base tester comes with a 168-pin test socket and supports all popular PC150/133/100/66 and older EDO/FPM DIMM modules. RAMCHECK is included in the RAMCHECK PLUS package, and can also be purchased separately.



### RAMCHECK DDR ONLY

RAMCHECK DDR ONLY is a lower cost version of the RAMCHECK PLUS, supporting DDR devices only. It comes without the 168-pin test socket and supports all future DDR adapters.



### DDR 184-PIN Adapter

Tests all popular 184-pin DDR

modules, including unbuffered and registered, ECC and non-ECC. This adapter is included in the RAMCHECK PLUS package, and can also be purchased separately.



### S.O. DIMM 144-PIN Adapter

supports 144-pin SDRAM/EDO/FPM modules with configurations of 64 and 72 bits.



### RAMCHECK Sync Chip Adapter

supports popular TSOP chips in sizes of 16Mx16, 4Mx16,

32Mx8, 8Mx8, 64Mx4, 16Mx4 and more. Shown with all optional sockets.



### RAMCHECK SIMM Adapter

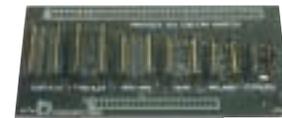
is for testing older 72-pin SIMM modules. It can also come with

an optional test socket for 30-pin SIMMs, as shown.



### S.O. DIMM 100-PIN Adapter

Supports 100-pin SDRAM/EDO/FPM modules for printers and other equipment.



### SOJ EDO/FPM Adapter

Tests all legacy SOJ EDO/FPM DRAM chips, with 20 to 42 pin.



### Direct Printer Interface

Although you can print all test reports via the PC Interface included with RAMCHECK, the optional Direct Printer Interface allows you to print directly from RAMCHECK to a printer without the need for a PC connection.

“...it is incredibly invaluable to be able to say this memory or that memory is physically bust, but not necessarily feasible with a small budget. However, when we consider where comparable memory testers are priced, and take into consideration the portability and ease of use of the RAMCHECK, things begin to look a bit more bright for even small companies.”

*Max Page, PCSTATS.COM*

**30-Day Money-Back Guarantee!** In USA and Canada

**One-Year Warranty!**

**(281) 879-6226 Fax (281) 879-6415**

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